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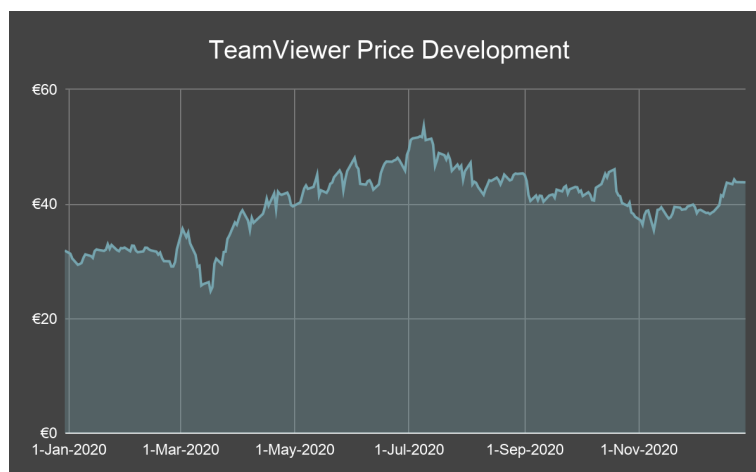
TeamViewer AG Overview

FRA: TMV

Technology/Software

Recommendation: SELL

Target Price	€40
Last close	€43.84
Upside/Downside	-9.87%
Market Cap	€8.90B
Shares Out.	201m
52-Week High	€54,98
52-Week Low	€22,50
P/E (TTM)	69.52x
P/BV (TTM)	44.18x



Investment Summary

We issue a SELL rating on TeamViewer (TMV) based on a 12-month price target of €40 derived from our multiple valuation, and DCF model. Our Target price represents a 9.87% downside from the last close of €43.84 on 29 December 2020.

The Market Consensus for TeamViewer is majority positive (See Appendix 8 for Market Consensus). Despite the bright future that TeamViewer seems to have before it, we believe that the market is too optimistic in its assessment of the company's prospects going forward. Our Sell recommendation comes from a conservative view on the lasting impact of growth from COVID-19 and an overall tech exuberance in the market, priced into our DCF analysis.

We believe TeamViewer to be well-positioned as an all-in-one Software-as-a-Service (SaaS) business that has considerable growth potential and is investing in a diverse set of complementary businesses. These include screen sharing, data transfer, and remote access. Within remote access, the company has created specialized products for company IT frameworks, IoT, back-end IT, and Augmented Reality. While COVID-19 continues to be detrimental to governments, and societies around the world TeamViewer is fairly well-positioned to benefit from the technological acceleration taking place as a result. The product's stickiness and market leadership position give the company a lot of room for continued growth.

The company is not very transparent in the way that revenue is generated, neither by product line or geographic segment. We could find no information whatsoever on revenue by product line, and had to reconstruct revenue by geographic segment ourselves through information given in the annual report. In investor presentations, the key metric used for projections is Billings, which does not match the figures of Revenue as presented in the annual reports. We find Billings Growth and Subscriber Growth, figures constantly used in these presentations, to be confusing metrics that do not present meaningful information to the investor.

Main risks to our recommendation include us being incorrect in our assumptions on the market outlook and TeamViewer's growth prospects. We believe COVID-19 to provide a tailwind through 2021 for the company in terms of positive revenue growth. After this period, we believe revenue growth will grow at the overall industry level, pressured by competitive forces. However, should the tailwind continue on through 2022 and beyond, leading to higher growth rates for TeamViewer, or if the market's exuberance for tech companies continues to accelerate, then we could be undervaluing the stock.

Business Model Overview and Analysis

TeamViewer was started in 2005 and has since expanded to become a household name in remote access and online data communication. The ability to offer services worldwide due to the online nature of their products, as well as their business model of offering free private use of their core product, has led to their position as a serious player in the online connectivity market. Since 2018, TeamViewer has shifted to a subscription-based strategy, offering its range of products at different price points depending on the number of users.

It's All in the Name

TeamViewer's eponymous product offers users connectivity and accessibility between devices of different builds and operating systems. Through secure remote access, data transfer, and screen sharing, TeamViewer opens the possibility of collaboration with workers across the planet. TeamViewer offers most of their products in their core package, with possibilities to purchase additional subscriptions for products like IoT (the solution for devices used in manufacturing and robotics) and Tensor (allowing for deeper integration into a company's IT framework) after a consultation. TeamViewer employs a three-level sales strategy where the core TeamViewer software is available for private use to drive brand recognition and awareness. Next, subscriptions are sold at a low price at the commercial level, once again with the intention of maximizing use cases. Finally, upselling and cross-selling are pursued; existing users are encouraged to expand their licenses and to purchase other TeamViewer products to meet their business' growing needs.

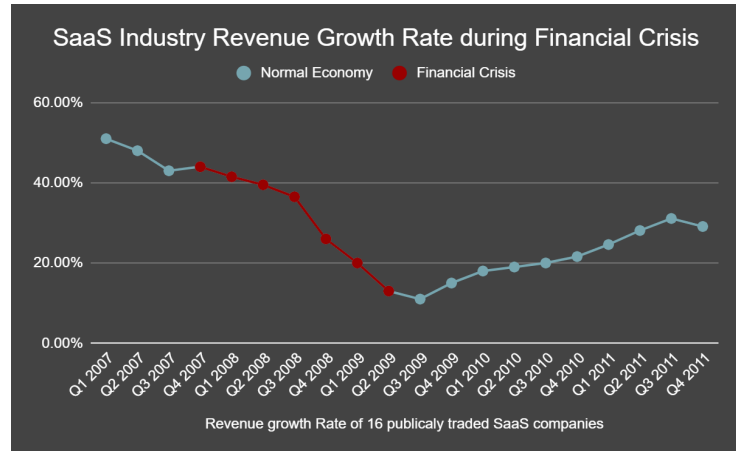
Another software company to ditch the one-and-done business model in favor of a subscription-based approach, TeamViewer follows in the footsteps of industry giants like Adobe and Microsoft. The subscription-based model for software is the new normal for a reason - the lower monthly prices draw in more users and allow for higher revenue per customer over a long enough period.

Focusing on a Future of Growth, but the Glasses are Foggy

Annual reports show incredibly attractive yearly growth in both subscribers and billings. However, TeamViewer doesn't offer specifics on where this growth originates from. It is difficult for the investor to review the efforts TeamViewer is making in their capital expenditures, in both product line and geographic segments. Perhaps millions of Euros are going into R&D for Tensor, resulting in a relatively tiny increase of subscribers, or perhaps a service like Remote Management (included in the core package) generates a loss of revenue, but continues to be maintained. This lack of transparency makes it difficult to look ahead at the profitability of TeamViewers different services/sectors and forces the investor to take them at their word when it comes to these basic points.

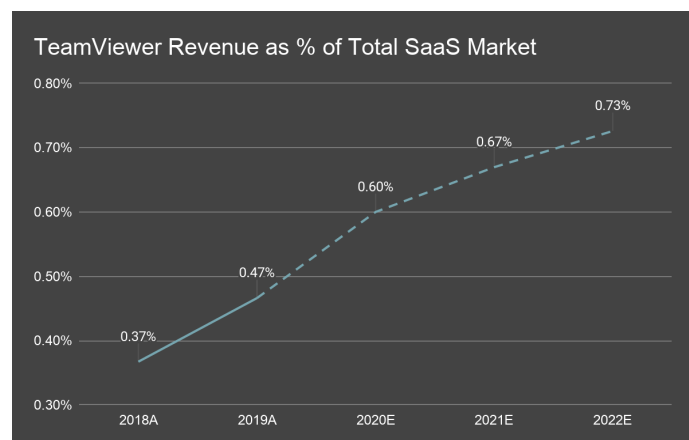
Industry Overview and Competitive Positioning

The Software as a Service (SaaS) industry is characterized by high competition growing yearly, sizable gross margins, and less sensitivity to the economic changes when compared to other related industries such as computer manufacturing. The chart to the right shows that even during a global financial crisis, revenues continued to grow. The biggest threat for the SaaS industry is increased competition and cybersecurity risk. Studies from Gartner forecast revenue from worldwide public cloud services to grow 6% in 2020, to total \$257.9 bn, up from \$242.7 bn in 2019. SaaS will remain the largest segment of this market, as seen in the table below, forecast to grow to \$140.6 bn by 2022 due to the scalability of subscription-based software.



Worldwide Public Cloud Service Revenue Forecast (Millions of U.S. Dollars)					
	2018A	2019A	2020E	2021E	2022E
Business Process Services (BPaaS)	41,700	45,212	43,438	46,287	49,509
Application Infrastructure Services (PaaS)	26,400	37,512	43,498	57,337	72,022
Application Services (SaaS)	85,700	102,064	104,672	120,990	140,629
Management and Security Services	10,500	12,836	14,663	16,089	18,387
System Infrastructure Services (IaaS)	32,400	44,457	50,393	64,294	80,980
Desktop as a Service (DaaS)	N/A	616	1,203	1,951	2,535
Total Market	196,700	242,697	257,867	306,948	364,062

When considering TeamViewer's revenue as a percentage of Worldwide SaaS revenue (converted from above to Euro), they represent 0.37% and 0.47% of the market in 2018 and 2019 respectively, a slightly growing trend. We compared our forecasts for TeamViewer's revenue against Gartner's forecasts of the Worldwide SaaS revenue and saw that the trend continued in a similar, consistent manner, giving us confidence in our predictions.



AI as Major Driver: Will It Complement or Subtract From SaaS?

The introduction of artificial intelligence (AI) is gaining popularity in the SaaS market. AI in SaaS helps companies stay up-to-date with the latest data, create better user experiences through predictive analytics, automate certain operations, and personalize user interface features. These new tools will be what sets companies apart as the SaaS market grows.

In the technology industry, buzzwords like SaaS and AI are often thrown around to enable companies to more easily market their products and investment stories to potential investors. TeamViewer, however, invests in TeamViewer Pilot which uses AI to help diagnose mechanical issues of various supported machinery. While AI in the aggregate is a potential threat to the SaaS industry, TeamViewer utilizing AI as a part of some of its products shows that they are willing to incorporate the new technology instead of competing against it.

Technological Drivers: Internet of Things Will Be in Everything

According to Gartner, worldwide IT spending is projected to shrink due to the COVID-19 crisis (from \$3.8 tn in 2019 to \$3.6 tn in 2020), but will pick up again in 2021 and beyond (see Appendix 9 for Worldwide IT Spending). In our view, TeamViewer will not be directly impacted by this decrease; partly because of their status as a growth company and partly because their services will act as an important tool to keep businesses running throughout the pandemic. When IT spending ramps up again, business will focus more on connectivity through investments in Internet of Things (IoT) devices. As IoT devices collect significant amounts of data, enterprises analyze and transform that data into insights that enable them to expand their business. These initiatives enhance the dependence of enterprises on digital technologies to operate their businesses, increasing the importance of connectivity solutions like TeamViewer for businesses to sustain themselves. We believe TeamViewer is well-positioned to take advantage of this industry shift.

The continued increase in the penetration of mobile technologies combined with the adoption of IoT technology in commercial and industrial applications has resulted in a proliferation of endpoints and devices. As more and more things are connected to IoT, there could be a change from people helping each other to fix technical problems to people helping machines (using supporting softwares in mobile/tablets) and eventually to machines helping machines to fix technical issues.

Geographic Drivers: Non-stop Growth all over the Globe

We aggregated the data for revenue by country for TeamViewer up to the AMERICAS, EMEA, and APAC regions so they would be more easily comparable (see Appendix 11 for Revenue by Region and Aggregated Revenue by Region). The CAGR from 2018 to 2023 for the markets of AMERICAS, EMEA, and APAC will be 24%, 23%, and 26% respectively. The table on the next page shows TeamViewer's revenue by region in 2019 and what these revenues will grow to, assuming they grow at the same rate as their respective markets. These figures are compared to the revenues computed using our model. Our projections for TeamViewer's revenues outpace the market's growth rate, representing our belief that they will continue to expand and increase in market share.

Revenue by Region Forecast with Market CAGR						
	CAGR	2019A	2020E	2021E	2022E	2023E
AMERICAS	24%	122,873	152,363	188,930	234,273	290,498
EMEA	23%	219,752	272,492	337,891	418,984	519,541
APAC	26%	47,567	58,983	73,139	90,692	112,459
Total Revenue		390,192	483,838	599,959	743,949	922,497
Our Revenue Projection			515,052	664,417	837,166	1,038,085

Competitive Positioning: Everything Under One Umbrella

The major players in SaaS are SAP, Salesforce, Service Now, Microsoft, Oracle, Google, and Cisco. Over the decade, the SaaS business has become highly competitive with new players emerging every year. TeamViewer provides a broad connectivity platform that makes their products easily accessible by bringing everything under one umbrella. However, the overall connectivity market is highly fragmented across vendors and functional markets. For many of the software services provided by TeamViewer there exists comparable online services which are free, but these free alternatives provide only basic functionality. Regarding commercial solutions, TeamViewer competes with businesses across distinct markets.

The major service provided by TeamViewer is Remote Access for desktop and mobile, facing tough competition from LogMeIn, Chrome Remote Desktop, and Mikogo. In terms of IT management software, TeamViewer faces competition from providers such as Connectwise, AnyDesk, and GoToAssist. Within the web-based video conferencing landscape, TeamViewer faces competition from big players like Zoom, Microsoft Teams and Skype, WebEx and GoTo.

TeamViewer strives to compete with businesses across several market segments in the SaaS business while not commanding a dominant presence in any of them. Were they to focus on their core product of Remote Access, they might be able to act as market leader, but they would lose out on their exposure to different businesses like IT management. TeamViewer's diversification throughout the SaaS landscape can be seen as a promising form of risk management; however, it can also be seen as stretching themselves too thin. By not establishing a strong foothold in any particular market segment, we believe they are at risk of losing market share in the future if new, specialized competitors enter the scene.

Financial Analysis

Track Record

TeamViewer has grown substantially in the last couple of years. Data is only available from the year 2016 and onwards, from their IPO prospectus and annual reports. From 2016 to 2019 the company grew revenues from 91,600 mn to 390,100 mn. This was done while keeping the Cost of Sales growing only modestly from 39,700 to 50,200 mn. Though they show recent considerable growth, in the years of which data is available, TeamViewer only started to turn a profit in the year 2019. This could be cause for concern for a company that is already in its teens, though with a successful IPO and current profitability, it is easy to assume yearly losses will stay in the past (see Appendix 1 for Profit and Loss Statement)

Assumptions

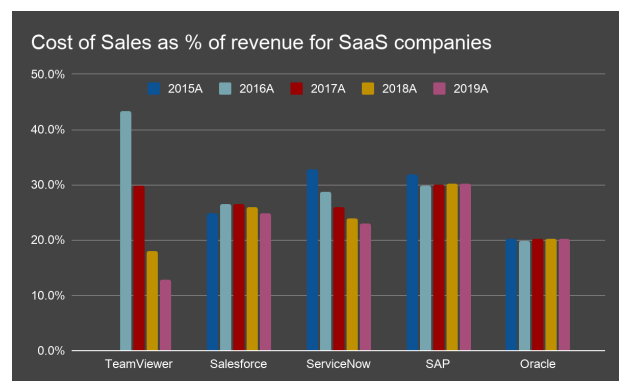
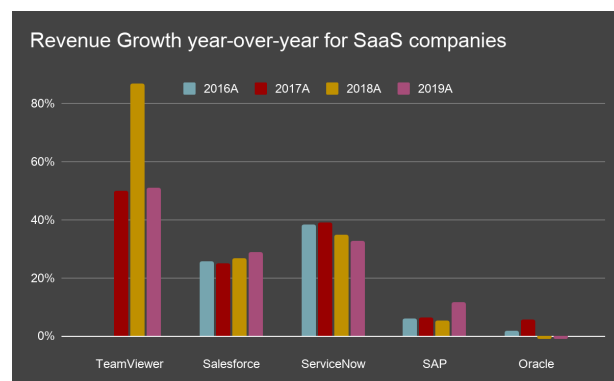
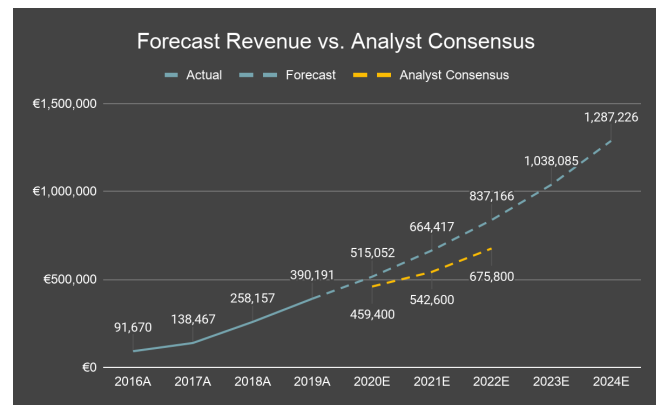
We take several major assumptions into consideration when forecasting for our models. We work under the assumption that there are no further mergers or acquisitions; M&As are an exogenous occurrence, and any M&A event that we could forecast would be arbitrary in nature. We also assume there are no further debt or equity issuance; with the recent IPO providing a substantial amount of funding and the increased cash flows due to COVID-19 conditions, we believe that the company has enough cash to fund operations and increasing R&D requirements.

We forecast our growth rates by using a mixture of different methods. Our main focus was given to the major items on the P&L statement, taking the trends of competitors and the global SaaS market into consideration. Line items that fluctuate through the years with no clear trend were forecast as a simple historic average. Finally, some insignificant items were omitted from forecasts entirely, to simplify our process (see Appendix 1 for Profit and Loss Statement).

Forecast Results

In our estimation, as TeamViewer settles into its new role as a publicly traded company, the characteristics of their major P&L items will fall in line to resemble that of competitors with closely comparable business models: Salesforce, ServiceNow, SAP, and Oracle. We consider TeamViewer to be entering the later section of the “growth” phase, along with Salesforce and ServiceNow; these companies reinvest, innovate, and grow at a fast pace. On the other hand, SAP and Oracle are well-established in the SaaS market and no longer aggressively seek market share, thus we consider them to be in their “mature” phase.

Our model for TeamViewer allows for moderate revenue growth compared to previous years; a company cannot continue to grow at 50% yearly for a prolonged period of time. Year-over-year revenue growth for the growth companies is around 20%, declining to single digits for mature companies (see Appendix 6 for Revenue Growth). Since we believe TeamViewer to be in its growth phase, we assigned them a revenue growth rate that approaches 20% over time. This still results in over €1 bn revenue in



2024, and continues TeamViewer's trend of increasing global SaaS market share. The forecast for Cost of Sales follows the same reasoning. We believe the company will keep an advantageous position in the mid-term and that competition will erode some of the Cost of Sales margin that the company currently enjoys. We expect the cost of sales to increase to more closely match the long-term industry average of 20-30% (see Appendix 7 for Cost of Sales).

Valuation

Absolute Valuation: DCF Shows Considerable Promise

We utilized a Discounted Cash Flow model to do our absolute valuation. Our Beta on the TecDAX was calculated as 0.75, WACC at 2.58%, and the Terminal Growth Rate used was 1% (see Appendix 10 for Beta and WACC calculations). Under these assumptions, we calculated the expected Free Cash Flows to Firm (FCFF)

for the next 5 years. From the FCFF projections we calculated TeamViewer's Enterprise Value (EV) and discounted it to its present value of €11.9 bn; Divided among the current outstanding shares, this gives us a value of €59.23 per share (see Appendix 4 for Absolute Valuation). However, we believe this figure to be slightly overvalued, as our FCFF figures were likely inflated due to simplified assumptions such as no new debt/equity issuance and no M&A activity. Furthermore, we were limited by a lack of transparency into relevant operating figures and relatively sparse historical data, due to the company's recent IPO; these limitations inhibited the reliability of our DCF. To counter these impediments, we also employed a multiples valuation to help paint a clearer picture of where TeamViewer stands in the market.

Enterprise Value	€11,909,725*
Outstanding Shares	201,070*
Price per Share	€59.23

**numbers in thousands except per share*

Relative Valuation: Compared to Peers, TeamViewer is Overhyped

In addition to the absolute valuation, we used data from Refinitiv and Yahoo!Finance to calculate a multiples valuation model. The peer group we used is a broad selection of competitors in the SaaS industry: Salesforce, Oracle, Microsoft, Alphabet, SAP SE, ServiceNow, and Cisco. We included mature and growth companies alike to account for both the risk TeamViewer poses as a younger tech company and also where its multiples could end up as it matures. The ratios we compared TeamViewer against are as follows: Firstly, EV/EBITDA, because we believe it offers clear comparisons between companies and isn't as easily manipulated like other popular ratios such as P/E. Secondly, we used EV/Sales because, as above, it is less easily manipulated and can better compare companies of different sizes by not factoring in the Cost of Sales that will vary between small and large companies. Lastly, we opted for Price/Book Value Per Share; though we recognize this is a somewhat flawed metric for a heavily intangibles-based company, it offers us a comparison between the market and accounting perspective (see Appendix 5 for Multiples Valuation).

Peer Group	Company Name	EV / EBITDA (TTM)	EV / Sales (TTM)	Price / Book Value Per Share (TTM)
Peer Group Average		51.90	9.71	14.00
TMV.DE	TeamViewer	40.70	23.03	44.44
Over/Undervaluation		-21.58%	137.11%	217.43%
Average	€43.94	110.99%		
Fair Value	€19.80	0.00%		

In terms of EV/EBITDA, the companies in their growth phase have quite high multiples (41-207), while the mature companies have lower multiples (12-23). TeamViewer's EV/EBITDA (40.7) is lower than the peer group average (51.9) resulting in an undervaluation of 21.6%. For EV/Sales, TeamViewer is overvalued by 137.1% at a multiple of 23 compared to the peer group average at 9.7. TeamViewer has the highest Price/Book Value Per Share (44.4) compared to the peer group average (14.0) resulting in an overvaluation of 217.4%. Overall, we find that the company is overvalued significantly based on multiple valuation, relative to the peer group. In our opinion, the market is very excited about TeamViewer's industry-leading revenue, margin, and customer growth prospects. In turn, it is willing to pay a multiples premium compared to the industry at large. While some of this optimism is duly warranted, we believe it will wane as time goes on and TeamViewer enters maturity.

For our final valuation, we combined the results from our Absolute Valuation and Relative Valuation at a 50/50 split. We acknowledge that it might be unusual to give such a high weighting to a Relative Valuation, but the limited historical data and lack of transparency into the company's operations make us err on the side of caution, not wanting to rely too heavily on a DCF valuation alone. Taking the Relative Valuation makes up for these limitations and allows for both the market and economic values to be adequately represented together in what we feel is a fair and accurate measure of TeamViewer's value.

	Price per Share	Weighting
Relative Valuation	€19.80	50%
Absolute Valuation	€59.23	50%
Total		
€39.51		

Investment Risks/Opportunities

STRENGTHS <i>Well-positioned globally</i> <i>Resistant to market fluctuations</i> <i>High profit margins</i>	WEAKNESSES <i>Relatively young in a market full of behemoths</i> <i>Opaque info on revenue/use by product</i> <i>Few hedges against currency risk</i>
OPPORTUNITIES <i>"New normal" of work from home</i> <i>Climate activism leading to lower need for business travel</i>	THREATS <i>Highly competitive market</i> <i>Hackers' interest in sensitive data</i>

The COVID-19 Impact: Every Cloud Has Its Silver Lining

The global pandemic has revealed untold risks in industries all across the world. However, some businesses have received a windfall from the situation; TeamViewer has so far been able to capitalize on the situation, responding to companies' needs as they arise. As we enter winter and a second/third global lockdown, we believe TeamViewer is poised to continue to do well through 2021. By 2022, however, we think the need for lockdowns will have ended, and many businesses will return to pre-pandemic operations; due to this, we believe the boost in growth will subside.

Currency Woes: Putting All Eggs into the Euro Basket

Operating worldwide in 180 countries with dozens of different currencies brings currency risk. TeamViewer converts revenue into Euros on the day it is generated at the applicable exchange rate; their view is that the Euro's exchange rate with other important currencies will remain steady. Because so much of the large percentage of business is done in USD and GBP, TeamViewer has taken out loans in those currencies to hedge against swings in the exchange rate between them and the Euro. However, this is the only action TeamViewer has taken to secure themselves against currency risk. Revenue streams from other currencies pose their own, albeit smaller, risk that remains unhedged.

Cybersecurity: Hackers Remain an Insidious Threat

Cybersecurity poses risk to companies born of the internet age, especially for those whose businesses are entirely dependent on secure data transfer. Just one incident can cause users to lose faith in a service and hurt a company financially as they pay out damages, as can be seen by Equifax, an American credit monitoring agency, who are still paying for their 2017 breach. TeamViewer is not unfamiliar with cyberattacks, having suffered two separate incidents in 2016. In one incident, some users' PayPal accounts were accessed by hackers; however, TeamViewer maintains this was an issue of clients reusing passwords rather than a security breach on their side. Regardless, the fact that it happened, and their handling of the situation, left a sour taste in victims' mouths. TeamViewer asserts that they now understand the threats cyberattacks pose and asserts they are doing everything they can to bolster cybersecurity, but in an ever-changing landscape like IT security, the risk always remains.

Takeover Opportunity: An Unlikely Future

Another potential risk to our assumptions and valuation is that TeamViewer is chosen as a takeover target. During the tech boom spurred on by the COVID-19 pandemic, it's a possibility an eager acquirer would want to take over the young TeamViewer. However, TeamViewer is not currently valued at an attractive discount to our estimated fair value and a 20-30% takeover premium might negate any benefit for an acquirer. Unless a potential buyer has incredible synergies to gain from acquiring TeamViewer, we believe the possibility to be quite low.

Environmental, Social, and Governance

Up to Code

As a German company, TeamViewer closely follows the German Corporate Governance Code (GCGC). A Supervisory Board made of six members were elected at the last Annual General Meeting following TeamViewer's change into a stock corporation, and have instituted diversity guidelines for future member composition, including at least two non-german nationals in the Supervisory Board and target figures for female representation in executive positions.

Socially Distancing Before It Was Cool

TeamViewer's entire business is centered on connecting people and devices across long distances. This connectivity leads to a reduced reliance on daily work in offices and travel for business meetings. The reduction of travel-related CO2 emissions due to TeamViewer services is impossible to calculate, but cannot be easily discounted. To account for CO2 emissions generated by their operations and 800 employees worldwide, TeamViewer participates in "Plant-for-the-Planet", a not-for-profit that plants trees in the Mexican rainforest. For the environmentally-minded investor, TeamViewer's contribution to CO2 reduction, more directly and indirectly, will make them more attractive.

Appendix

Appendix 1: Profit and Loss Statement

	PROFIT AND LOSS STATEMENT								
	Historical				Forecast				
	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2024E
Revenue	91,670	138,467	258,157	390,191	515,052	664,417	837,166	1,038,085	1,287,226
YoY Rev Growth		51.05%	86.44%	51.14%	32%	29%	26%	24%	24%
Cost of sales	(39,700)	(41,370)	(46,610)	(50,228)	(103,010)	(132,883)	(167,433)	(238,760)	(296,062)
% of Revenue	43.31%	29.88%	18.05%	12.87%	20.00%	20.00%	20.00%	23.00%	23.00%
Gross Profit	51,970	97,098	211,548	339,963	412,042	531,534	669,733	799,326	991,164
Other income	1,555	2,651	1,588	7,723	7,990	10,307	12,987	16,104	19,969
% of Revenue	1.70%	1.91%	0.62%	1.98%	1.55%	1.55%	1.55%	1.55%	1.55%
Research and development	(13,020)	(16,542)	(23,039)	(37,934)	(57,681)	(74,408)	(93,754)	(116,255)	(144,156)
% of Revenue	-14.20%	-11.95%	-8.92%	-9.72%	-11.20%	-11.20%	-11.20%	-11.20%	-11.20%
Sales	(21,621)	(22,421)	(30,458)	(52,731)	(83,812)	(108,118)	(136,229)	(168,923)	(209,465)
% of Revenue	-23.59%	-16.19%	-11.80%	-13.51%	-16.27%	-16.27%	-16.27%	-16.27%	-16.27%
Marketing	(10,443)	(13,020)	(17,974)	(29,571)	(45,500)	(58,695)	(73,955)	(91,704)	(113,713)
% of Revenue	-11.39%	-9.40%	-6.96%	-7.58%	-8.83%	-8.83%	-8.83%	-8.83%	-8.83%
General and administrative	(15,688)	(21,004)	(26,089)	(58,445)	(73,867)	(95,289)	(120,064)	(148,879)	(184,611)
% of Revenue	-17.11%	-15.17%	-10.11%	-14.98%	-14.34%	-14.34%	-14.34%	-14.34%	-14.34%
Other expenses	(26)	(568)	(166)	(468)	(802)	(1,035)	(1,303)	(1,616)	(2,004)
% of Revenue	-0.03%	-0.41%	-0.06%	-0.12%	-0.16%	-0.16%	-0.16%	-0.16%	-0.16%
Bad debt expenses	0	0	(8,280)	(15,489)	(25,032)	(32,292)	(40,688)	(58,021)	(71,946)
% of COGS	0.00%	0.00%	17.76%	30.84%	24.30%	24.30%	24.30%	24.30%	24.30%
Operating profit	(7,273)	26,194	107,130	153,048	133,337	172,005	216,726	230,030	285,238
Unrealized foreign exchange gains/(losses)	(11,638)	58,747	(20,791)	7,770	30,477	39,315	49,537	61,426	76,168
% of Revenue	-12.70%	42.43%	-8.05%	1.99%	5.92%	5.92%	5.92%	5.92%	5.92%
Realised foreign exchange gains/(losses)	(1,252)	(1,772)	(162)	(20,721)	(10,325)	(13,319)	(16,783)	(20,810)	(25,805)
% of Revenue	-1.37%	-1.28%	-0.06%	-5.31%	-2.00%	-2.00%	-2.00%	-2.00%	-2.00%
Finance income	26,766	7,094	12,311	38,936	63,183	81,506	102,697	127,344	157,907
% of Revenue	29.20%	5.12%	4.77%	9.98%	12.27%	12.27%	12.27%	12.27%	12.27%
Finance costs	(74,822)	(160,466)	(93,988)	(83,891)	(110,736)	(142,850)	(179,990)	(223,188)	(276,753)
% of Revenue	-81.62%	-115.89%	-36.41%	-21.50%	-21.50%	-21.50%	-21.50%	-21.50%	-21.50%
Profit before taxation	(68,219)	(70,203)	4,500	95,142	105,935	136,657	172,188	174,802	216,755
% of Revenue	-74.42%	-50.70%	1.74%	24.38%	-24.75%	-24.75%	-24.75%	-24.75%	-24.75%
Tax income/(expenses)	9,396	1,052	(16,912)	8,717	(30,509)	(39,357)	(49,590)	(50,343)	(62,425)

% of Revenue	10.25%	0.76%	-6.55%	2.23%	28.80%	28.80%	28.80%	28.80%	28.80%
Profit/(loss) for the year	(58,823)	(69,151)	(12,412)	103,859	75,426	97,300	122,598	124,459	154,329
Items that reclassified to P/L in subsequent periods			(10)	202	0	0	0	0	0
% of Revenue	0.00%	0.00%	0.00%	0.05%	0.01%	0.01%	0.01%	0.01%	0.01%
Hedge reserve, gross			(14)	14	0	0	0	0	0
% of Revenue	0.00%	0.00%	-0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Exchange differences on translation of foreign operations			4	188	0	0	0	0	0
% of Revenue	0.00%	0.00%	0.00%	0.05%	0.01%	0.01%	0.01%	0.01%	0.01%
Total comprehensive income for the year	(58,823)	(69,151)	(12,432)	104,263	75,426	97,300	122,598	124,459	154,329

Appendix 2: Balance Sheet: Assets

BALANCE SHEET									
	Historical				Forecast				
	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2024E
Non-current assets									
Goodwill	584,312	584,312	584,312	590,445	590,445	590,445	590,445	590,445	590,445
Intangible assets	290,501	270,505	252,563	235,831	219,998	205,228	191,450	178,597	166,606
YoY Growth Rate		-6.88%	-6.63%	-6.62%	-6.71%	-6.71%	-6.71%	-6.71%	-6.71%
Property, plant and equipment	2,782	2,919	2,239	26,480	34,954	45,090	56,814	70,449	87,357
% of Operating Revenue	3.03%	2.11%	0.87%	6.79%	6.79%	6.79%	6.79%	6.79%	6.79%
Financial assets	19,672	14,747	0	4,424	42,805	55,219	69,576	86,274	106,980
% of Revenue	21.46%	10.65%	0.00%	1.13%	8.31%	8.31%	8.31%	8.31%	8.31%
Other assets			745	1,740	946	1,220	1,537	1,906	2,364
% of Revenue	0.00%	0.00%	0.29%	0.45%	0.18%	0.18%	0.18%	0.18%	0.18%
Deferred tax assets	219	317	0	6,266	2,670	3,445	4,340	5,382	6,673
% of Operating Revenue	0.24%	0.23%	0.00%	1.61%	0.52%	0.52%	0.52%	0.52%	0.52%
Total non-current assets	897,486	872,800	839,859	865,186	891,818	900,647	914,162	933,053	960,425
Current assets									
Trade receivables	18,766	18,571	15,442	11,756	15,518	20,018	25,223	31,276	38,783
Days Sale Outstanding	73.70	48.28	21.53	10.85	10.85	10.85	10.85	10.85	10.85
Other assets	1,939	2,702	3,258	5,856	8,794	11,344	14,293	17,724	21,977
% of Operating Revenue	2.12%	1.95%	1.26%	1.50%	1.71%	1.71%	1.71%	1.71%	1.71%
Tax assets	1,982	1,869	0	4,972	6,163	7,950	10,017	12,421	15,402
% of Operating Revenue	2.16%	1.35%	0.00%	1.27%	1.20%	1.20%	1.20%	1.20%	1.20%
Financial assets	1,379	9,279	9,715	0	15,411	19,881	25,050	31,061	38,516
% of Operating Revenue	1.50%	6.70%	3.76%	0.00%	2.99%	2.99%	2.99%	2.99%	2.99%

Cash and cash equivalents	86,876	35,154	79,939	71,153	220,686	451,756	563,108	715,044	988,153
<i>From Cash Flow Statement</i>									
Total current assets	110,942	67,574	108,355	93,737	266,572	510,949	637,691	807,526	1,102,831
Total assets	1,008,428	940,374	948,214	958,923	1,158,390	1,411,596	1,551,853	1,740,579	2,063,256

Appendix 2: Balance Sheet: Liabilities and Owner's Equity

	Historical				Forecast				
Equity	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2024E
Issued capital	25	25	25	200,000	0	0	0	0	0
Capital reserve	114,512	114,512	116,312	320,661	320,661	320,661	320,661	320,661	320,661
(Accumulated losses)/retained earnings	(247,073)	(316,226)	(332,876)	(429,881)	(326,022)	(250,596)	(153,296)	(30,699)	93,760
Hedge reserves	0	0	(14)	0	0	0	0	0	0
Foreign currency translation reserve	0	0	4	1,081	0	0	0	0	0
Total equity attributable to owners of the parent	(132,536)	(201,689)	(216,549)	91,861	(5,361)	70,065	167,365	289,962	414,421
Non-current liabilities									
Provisions	24	24	143	235	205	264	333	413	512
% of Operating Revenue	0.03%	0.02%	0.06%	0.06%	0.04%	0.04%	0.04%	0.04%	0.04%
Financial liabilities	488,189	664,328	678,771	582,538	582,538	582,538	582,538	582,538	582,538
% of Operating Revenue	532.55%	479.77%	262.93%	149.30%	113.10%	87.68%	69.58%	56.12%	45.26%
Deferred revenue	173,593	148,660	47,225	2,572	3,395	4,380	5,518	6,843	8,485
% of Operating Revenue	189.37%	107.36%	18.29%	0.66%	0.66%	0.66%	0.66%	0.66%	0.66%
Other financial liabilities	1,325	731	2,928	0	0	0	0	0	0
% of Operating Revenue	1.45%	0.53%	1.13%	0.00%	0.78%	0.78%	0.78%	0.78%	0.78%
Deferred tax liabilities	7,544	6,766	18,614	308	26,274	33,894	42,706	52,956	65,665
% of Operating Revenue	8.23%	4.89%	7.21%	0.08%	5.10%	5.10%	5.10%	5.10%	5.10%
Total non-current liabilities	670,675	820,509	747,681	585,652	612,412	621,076	631,096	642,749	657,200
Current liabilities									
Provisions	1,581	1,491	1,205	3,284	5,292	6,827	8,602	10,666	13,226
% of Operating Revenue	1.72%	1.08%	0.47%	0.84%	1.03%	1.03%	1.03%	1.03%	1.03%
Financial liabilities	349,773	140,369	154,818	34,260	222,527	296,288	218,942	140,996	164,715
Trade payables	3,952	4,535	6,695	9,069	13,735	17,719	22,326	31,836	39,477
% of Operating Revenue	35.84	39.46	51.71	65.00	48.00	48.00	48.00	48.00	48.00
Deferred revenue	94,181	160,123	233,410	210,250	277,530	358,014	451,097	559,361	693,607
% of Operating Revenue	102.74%	115.64%	90.41%	53.88%	53.88%	53.88%	53.88%	53.88%	53.88%
Deferred and other liabilities	7,100	9,623	13,846	17,793	23,487	30,298	38,175	47,337	58,698
% of Operating Revenue	7.75%	6.95%	5.36%	4.56%	4.56%	4.56%	4.56%	4.56%	4.56%
Other financial liabilities	13,703	5,413	6,640	6,642	8,767	11,310	14,251	17,671	21,912

% of Operating Revenue	14.95%	3.91%	2.57%	1.70%	1.70%	1.70%	1.70%	1.70%	1.70%
Tax liabilities	0	0	466	114	0	0	0	0	0
% of Operating Revenue	0.00%	0.00%	0.18%	0.03%	0.05%	0.05%	0.05%	0.05%	0.05%
Total current liabilities	470,289	321,553	417,080	281,411	551,339	720,455	753,392	807,867	991,635
Total liabilities	1,140,964	1,142,062	1,164,761	867,063	1,163,751	1,341,531	1,384,488	1,450,617	1,648,835
Total equity and liabilities	1,008,428	940,373	948,212	958,924	1,158,390	1,411,596	1,551,853	1,740,579	2,063,256

Appendix 3: Cash Flow Statement: Cash from Operating Activities

	Historical				Forecast				
	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2024E
Cash flow from operating activities									
Profit before taxation	(68,219)	(70,203)	4,500	95,142	105,935	136,657	172,188	174,802	216,755
<i>From P&L Statement</i>									
Depreciation, amortisation and impairment of non-current assets	26,368	27,708	30,106	36,442	48,103	62,053	78,187	96,952	120,221
% of PP&E	947.81%	949.23%	1344.62 %	137.62%	137.62%	137.62%	137.62%	137.62%	137.62%
(Gain)/loss from the sale of property, plant and equipment	12	(2)	0	(5)	0	0	0	0	0
Increase/(decrease) in provisions	(498)	(295)	(221)	2,170	1,978	1,594	1,844	2,144	2,659
Non-operational foreign exchange (gains)/losses	12,206	(58,246)	20,208	10,869	(3,741)	(3,741)	(3,741)	(3,741)	(3,741)
Expenses for share-based compensation	0	0	1,800	36,830	0	0	0	0	0
Net financial result	48,057	153,372	81,667	44,955	47,553	61,344	77,293	95,844	118,846
<i>From P&L Statement</i>									
Change in deferred revenue	81,411	41,010	(28,097)	(67,814)	68,103	81,468	94,222	109,588	135,889
<i>From Balance Sheet</i>									
Changes in net working capital	1,729	857	3,601	2,917	14,122	15,295	17,689	24,726	26,508
<i>Change in Trade Payable</i>					4,666	3,983	4,607	9,511	7,641
<i>Change in Trade Receivable</i>					3,762	4,500	5,205	6,053	7,506
<i>Change in Deferred and Other Liabilities)</i>					5,694	6,811	7,877	9,162	11,361
Income taxes paid	(23,446)	683	(1,016)	(17,879)	(10,415)	(10,415)	(10,415)	(10,415)	(10,415)
Interest received/(paid)	0	(14)	0	(18)	0	0	0	0	0
Net cash from operating activities	78,043	97,610	112,556	143,610	271,640	344,256	427,268	489,901	606,722

Appendix 3: Cash Flow Statement: Cash from Investing Activities

	Historical				Forecast				
	2,016	2,017	2,018	2,019	2020E	2021E	2022E	2023E	2024E
Cash flows from investing activities									
Proceeds from loans to third parties	(897)	(7,943)	180	0	0	0	0	0	0
Capital expenditure for property, plant and equipment and intangible assets	(5,499)	(7,847)	(11,484)	(16,641)	(24,071)	(34,820)	(50,367)	(72,856)	(105,388)
CAPEX for PPE + Intangibles Growth		42.70%	46.35%	44.91%	44.65%	44.65%	44.65%	44.65%	44.65%
Proceeds from the sale of property, plant and equipment	5	2	0	0	0	0	0	0	0
Payments for the acquisition of non-current financial assets	0	0	0	(4,326)	0	0	0	0	0
Interest received	69	32	126	90	79	79	79	79	79
Net cash used in investing activities	(6,327)	(15,757)	(11,178)	(20,877)	(23,992)	(34,740)	(50,288)	(72,777)	(105,308)

Appendix 3: Cash Flow Statement: Cash from Financing Activities

	Historical				Forecast				
	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2024E
Cash flows from financing activities									
Repayments of borrowings	(3,914)	(4,430)	(5,016)	(696,373)	(55,783)	(36,087)	(221,428)	(221,428)	(185,341)
Proceeds from bank borrowings	0	184,002	0	610,318	0	0	0	0	0
Payments for the capital element of lease liabilities	0	0	0	(3,836)	0	0	0	0	0
Interest paid for borrowings and lease liabilities	(35,000)	(41,416)	(50,323)	(46,100)	(41,842)	(41,868)	(43,710)	(43,270)	(42,474)
Interest as Percentage of Financial Liabilities	-7.17%	-6.23%	-7.41%	-7.91%	-7.18%	-7.19%	-7.50%	-7.43%	-7.29%
Proceeds/(payments) from the settlement of derivatives	(618)	(600)	(610)	(131)	(490)	(490)	(490)	(490)	(490)
Proceeds/(payments) in equity	0	0	0	25	0	0	0	0	0
Net cash used in financing activities	(39,533)	(132,682)	(55,948)	(136,102)	(98,115)	(78,445)	(265,628)	(265,188)	(228,305)
Net change in cash and cash equivalents	32,183	(50,829)	45,430	(13,369)	149,533	231,070	111,352	151,936	273,109
Net foreign exchange rate difference	6	(893)	272	0	0	0	0	0	0
Net change from cash risk provisioning	0	0	(917)	815	0	0	0	0	0
Internal combinations and transfers			0	3,768	0	0	0	0	0
Cash and cash equivalents at beginning of period	54,987	86,876	35,154	79,939	71,153	220,686	451,756	563,108	715,044
From Balance Sheet									
Cash and cash equivalents at end of period	86,876	35,154	79,939	71,153	220,686	451,756	563,108	715,044	988,153

Appendix 4: Absolute Valuation from Free Cash Flow to Firm (FCFF) and Enterprise Value

	2019	2020E	2021E	2022E	2023	2024E
Period		1	2	3	4	5
NOPAT		€94,936	€122,468	€154,309	€163,782	€203,089
Change in NWC		€14,122	€15,295	€17,689	€24,726	€26,508
Depreciation		€48,103	€62,053	€78,187	€96,952	€120,221
Investments		-€24,071	-€34,820	-€50,367	-€72,856	-€105,388
FCFF		€104,846	€134,407	€164,441	€163,151	€191,414
Enterprise Value	€11,909,725	€11,993,245	€12,048,525	€12,074,646	€12,102,469	€12,102,469
Outstanding Shares	201,070					
Price per Share	€59.23					

Appendix 5: Multiples Valuation of TeamViewer's Peer Group

Peer Group	Company Name	EV / EBITDA (TTM)	EV / Sales (TTM)	Price / Book Value Per Share (TTM)
CRM	Salesforce	71.8	10.3	5.1
ORCL	Oracle	12.8	5.7	24.2
MSFT	Microsoft	22.6	11.0	13.6
GOOG	Alphabet	19.8	6.2	5.5
SAP	SAP SE	17.8	5.9	4.2
NOW	ServiceNow	207.3	25.4	40.4
CSCO	Cisco	11.3	3.6	4.9
Peer Group Average		51.9	9.7	14.0
TMV.DE	TeamViewer AG	40.7	23.0	44.4
Over/Undervaluation		-21.6%	137.1%	217.4%
Average	€43.94	111.0%		
Fair Value	€19.80	0%		

Appendix 6: Year-Over-Year (YoY) Revenue Growth for Comparable SaaS Companies

Revenue Growth Rate YoY%								
Company	Ticker	2015	2016	2017	2018	2019	Average Growth	Business Cycle
TeamViewer AG ADR	TMVWY	NA	NA	50.0%	87.0%	51.2%	62.7%	Growth
Salesforce.com Inc	CRM	NA	25.9%	24.9%	26.7%	28.7%	26.6%	Growth

ServiceNow Inc	NOW	NA	38.4%	39.0%	35.0%	32.6%	36.2%	Growth
SAP SE ADR	SAP	NA	6.1%	6.3%	5.3%	11.5%	7.3%	Mature
Oracle Corp	ORCL	NA	1.8%	5.6%	-0.8%	-1.1%	1.4%	Mature

Appendix 7: Cost of Sales as Percentage of Revenue for Similar SaaS Companies

Cost of Sales Percentage								
Company	Ticker	2015	2016	2017	2018	2019	Average	Business Cycle
TeamViewer AG ADR	TMVWY	NA	43.3%	29.9%	18.1%	12.9%	26.1%	Growth
Salesforce.com Inc	CRM	24.8%	26.6%	26.5%	26.0%	24.8%	25.7%	Growth
ServiceNow Inc	NOW	32.8%	28.7%	25.9%	23.9%	23.0%	26.9%	Growth
SAP SE ADR	SAP	31.9%	29.8%	30.1%	30.2%	30.3%	30.5%	Mature
Oracle Corp	ORCL	20.2%	19.8%	20.3%	20.2%	20.3%	20.2%	Mature

Appendix 8: Market Consensus

Market Consensus			
Price Target Consensus in EUR	Positive	Neutral	Negative
€54.27	10	1	0

Appendix 9: Worldwide IT Spending

Worldwide IT Spending Forecast (Millions of U.S. Dollars)						
	2019 Spending	2019 Growth (%)	2020 Spending	2020 Growth (%)	2021 Spending	2021 Growth (%)
Data Center Systems	214,911	1	208,292	-3.1	219,086	5.2
Enterprise Software	476,686	11.7	459,297	-3.6	492,440	7.2
Devices	711,525	-0.3	616,284	-13.4	640,726	4
IT Services	1,040,263	4.8	992,093	-4.6	1,032,912	4.1
Communications Services	1,372,938	-0.6	1,332,795	-2.9	1,369,652	2.8
Overall IT	3,816,322	2.4	3,608,761	-5.4	3,754,816	4

Appendix 10: Beta and WACC Calculation

TeamViewer Standard Deviation	0.03124513
TecDAX Standard Deviation	0.01776235
TeamViewer's Covariance	0.00023762
TecDAX Variance	0.00031550
Beta	0.75

Risk-free Rate	-0.62%
Beta	0.75
Market Risk Premium	7.70%
Cost of Equity	5.18%
Tax Rate	28%
Debt Ratio	0.542
Cost of Debt	0.54%
Debt	616,798
Equity	520,661
WACC	2.58%

Appendix 11: Regional Revenue and Aggregated Regional Revenue

Revenue by Region	Dec 2019	Dec 2018
USA	89,914	57,908
Germany	65,580	41,707
United Kingdom	19,130	14,790
France	20,952	12,553
Australia	11,744	9,608
Switzerland	12,011	8,969
Canada	11,745	7,697
Italy	12,658	7,058
Japan	8,693	4,717
Brazil	7,944	4,528
Rest of EMEA	89,421	66,127
Rest of APAC	27,130	15,143
Rest of AMERICAS	13,270	7,352
Total	390,192	258,157

Our Aggregated Revenue by Region	Dec 2019	% Share of Rev	Dec 2018	% Share of Rev
	2019	2019	2018	2018
EMEA	219,752	56.3%	151,204	58.6%
AMERICAS	122,873	31.5%	77,485	30.0%
APAC	47,567	12.2%	29,468	11.4%
Total	390,192		258,157	

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