

A Work Project, presented as part of the requirements for the Award of a Master Degree in Finance from NOVA – School of Business and Economics.

AT&T INC. – TOO LATE TO THE RACE  
FOR 5G?

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### Abstract

This report is an Equity Research report on AT&T Inc., the US communications company. It represents an attempt to determine the fair value of AT&T's stock based on an in-depth industry and competitor analysis and a detailed analysis of the company itself, including its financial health and strategy, to give a buy, hold or sell recommendation in the context of academic purposes.

The below part is section II out of II and focuses on the valuation of AT&T and on the analysis of potential synergies arising from the merger of AT&T's segment WarnerMedia with Discovery Inc.

**Keywords:** Equity Research, Valuation, Telecommunications

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This report is part of the report 'AT&T- A Communications Giant in an Exhausted Market' (annexed) and should be read as an integral part of it.

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### 3. Assumptions

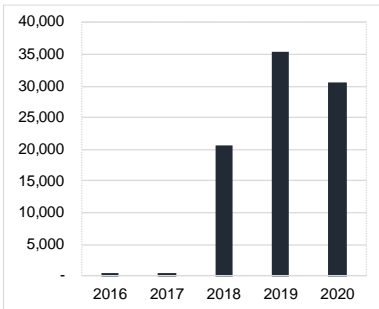
#### 3.3.3 WarnerMedia

WarnerMedia is the media and entertainment operation. The agreement to spin it off and combine it with Discovery is expected to close in mid-2022. AT&T shareholders will retain a 71% stake in the new company. Because the deal has yet to receive regulatory approval, we continue to consider it a core operation for AT&T. To be able to correctly account for future growth potential, we projected the forecasted financials for the combined WarnerMedia and Discovery to add 71% (due to AT&T's 71% share in the merged company) of the discounted value to AT&T's value. Since AT&T does not report its financials on segment level, we had to pursue an alternative approach. Instead, we projected WarnerMedia as if it would still be a part of AT&T. Simultaneously, a simplified valuation of Discovery and a standalone analysis of the potential synergies from the merger was completed (see section [4.2](#) and [4.3](#)). Then, 71% of both was added to AT&T's EV.

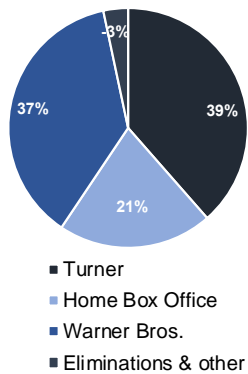
Core WarnerMedia revenue of \$30.4 billion last year (see figure 18: Total WarnerMedia revenue development) equals 17.7% of total revenue and 21.3% of total core revenue. WarnerMedia has four subsegments: Turner, HBO, Warner Bros., and Eliminations and Other (see figure 19: WarnerMedia revenue split 2020).

Turner primarily operates multichannel basic television networks and digital properties, the most famous of which is CNN, and sells advertising on its networks and digital properties. It also owns the rights to three of the four major American sports leagues (National Basketball Association, Major League Baseball, and the National Hockey League, with only the National Football League missing). Revenue fell -4.2% in 2020 to \$12.6 billion, mainly due to the cancellation of many sporting events and a serious delay of the start of the NBA season. This in turn hurt subscription and advertising revenue that make up 60.6% and 31.4% of the subsegment's overall revenue each, respectively. AT&T does not provide subscriber data for Turner, but subscription revenue of \$7.6 billion in FY20 represented a -2.0% decrease. This is significant when compared to the 83.9% growth in subscriber revenue seen between FY18 and FY19. Had there been more sporting events or subscriber-exclusive content that Turner could air, subscriber revenue would have presumably risen more.

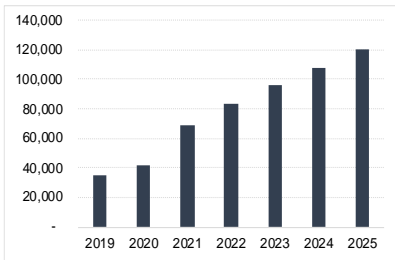
As most sporting events were allowed to happen this year, as well as the rollout of delayed events, we expect Turner's revenue to rebound and continue upwards. Sporting events will not only give Turner the opportunity to advertise to viewers,



**Figure 18: Total WarnerMedia revenue development (\$m)**  
Source: Company information



**Figure 19: WarnerMedia revenue split 2020**  
Source: Company information



**Figure 20: HBO subscriber forecast (in k)**

Source: Analyst estimates

closed a 7-year media rights deal with the National Hockey League that started as of the 2021-2022 season. Adding this to the fact they hold the rights to the NBA through 2025 and Major League Baseball through 2028, many American sports fans will only be able to follow their favorite teams by subscribing to Turner. Due to the lengthiness of the contracts Turner has with these leagues, we expect above average long-term growth.

HBO consists of premium pay television and HBO Max domestically and premium pay, basic tier television internationally. As of 3Q21, HBO has 69.4 million subscribers in total worldwide, a 12.5 million jump YoY. Within the United States, all subscribers are domestic. These jumps are a direct result of the pandemic, and the streaming platform has outperformed in the last year to the point that AT&T raised its guidance for total subscribers to up to 73 million by 4Q22. Furthermore, AT&T hopes to reach up to 150 million subscribers by the end of 2025 (see figure 20: HBO subscriber forecast) and predicts that this would translate to revenues of about \$15.0 billion, more than doubling the \$6.8 billion made in FY20.

This will largely be a result of HBO's expansion internationally. Currently, HBO is available in the United States and 39 territories across Latin America and the Caribbean. However, in October 2021, HBO launched in the Nordics, Spain, and Andorra, and next year they plan to launch in fourteen more countries in Europe, including Portugal, the Czech Republic, and Poland. Although European subscriber data is not available yet due to the recent launch, content such as Harry Potter, Game of Thrones, and The Big Bang Theory should draw consumers' attention.

It is noteworthy that AT&T's projections for its subscriber base even excludes countries such as the United Kingdom, Germany, Italy, and France due to licensing agreements that will not expire until 2025. Instead of maintaining a streaming platform in these countries, HBO sells the rights to its content to local companies. In the case that HBO itself enters these markets after 2025, subscription numbers should be bolstered substantially. A second factor driving near-term revenue growth will be increased production activity as the pandemic is contained. This will alleviate artificially reduced revenues, as productions are no longer on hiatus because of Covid-19 protocols.

Warner Bros. primarily handles the production, distribution, and licensing of television programming and feature films. After most theaters were forced to close during the pandemic, Warner Bros. revenue fell -15.4% in 2020 to \$12.2 billion. We expect the subsegment to recuperate though since it is so heavily supported by the fast-growing HBO. Warner Bros.' entire 2021 movie line-up was put on HBO Max at the same time as the films entered theatres. Even though streaming is free

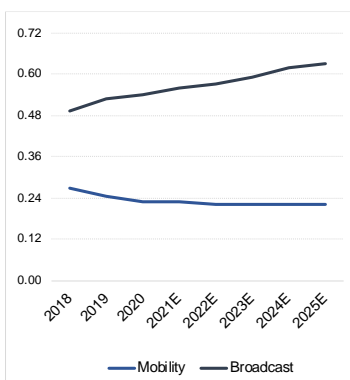
to all HBO Max subscribers, this did not prevent movies distributed by Warner Bros. like *Godzilla vs. Kong*, *Dune*, *Space Jam: A New Legacy*, and *The Conjuring: The Devil Made Me Do It* from being among the highest earning films of 2021. These four films all appear among the top 16, proving Warner Bros. is adapting to the rising trend of stay-at-home entertainment. Nevertheless, we acknowledge the decline in theater attendance, so we projected long-term growth of 1.0% going forward, which is lower than the long-term GDP growth rate.

Eliminations and Other includes the Xandr advertising business and removes transactions between the Turner, HBO, and Warner Bros. businesses, including internal sales of content to the HBO Max platform. Because this segment is typically less than 1% of revenue and therefore not a material caption, we decided to forecast it as an average of the previous five years, especially considering the difficulty in predicting internal transactions and the fact that the Xandr portion of revenue is never explicitly broken out, meaning it makes up an unknown percentage of the segment.

### 4.4 Costs

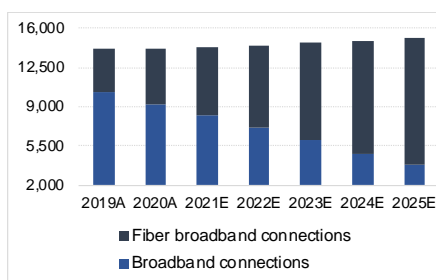
AT&T does not report its percentage of fixed versus variable costs, and the split presumably varies across segments. Instead, costs are broken down by subsegment and split into either operations and support (O&S) costs or depreciation and amortization (D&A) costs. As AT&T does report the number of subscribers per subsegment, we calculated the historical O&S and D&A costs per subscriber. We then used the forecasted subscriber counts for each subsegment from the ‘Revenues’ section to predict O&S and D&A costs on a per subscriber basis going forward.

Within Communications, the marginal cost for each new subscriber is relatively low, as AT&T must maintain its infrastructure to serve existing customers regardless of the subscribers it gains. This combined with the fact it is the wireless market leader means that AT&T benefits from economies of scale, reflected in O&S costs per subscriber falling from \$0.32 in 2017 to \$0.23 in 2020. Given that AT&T implemented a 3-year, \$6 billion cost-cutting plan in 2020, we expect this decreasing trend to continue, as it met its \$2 billion in savings goal in FY20. However, these initiatives will likely be offset by increased roaming costs due to elevated international travel as the world recovers from the pandemic. As a result, we forecasted both O&S costs and D&A costs in the Mobility subsegment to fall \$0.01 during the explicit forecasting period through 2025 and by another \$0.01 afterwards (see figure 21: *Operations and support costs per subscriber Mobility vs Broadband*).



**Figure 21: Operations and support costs per subscriber Mobility vs Broadband (in \$)**

Source: Analyst estimates



**Figure 22: AT&T Broadband vs Fiber subscriber development (in k)**

Source: Analyst estimates

On the other hand, we predicted Broadband costs would rise substantially due to Broadband growth is being completely driven by new fiber broadband additions (see figure 22: AT&T Broadband vs Fiber subscriber development) and is consistently losing legacy cable broadband customers, O&S costs rose from \$0.49 in 2018 to \$0.54 in 2020 and D&A costs rose from \$0.18 to \$0.21. Given that AT&T wants to double its fiber broadband subscribers by 2025, we forecasted that both O&S costs would rise 17% to \$0.63, given they rose 13% as fiber broadband subscribers grew 180% between 2017 and 2020.

Within WarnerMedia, industrywide content spend has reached a record high of \$220 billion in 2020<sup>1</sup>, and Streamonomics estimates that budgets for content spend will continuously rise, especially in North America where competition is tightening. Since we are not provided with any subscriber data for Warner Bros. and productions should ramp up post-pandemic, we reflect these themes in higher cost margins. In Turner, costs fell during the pandemic due to the postponement of major sporting events. But because it owns the broadcasting rights to three of the biggest American sports leagues, we expect a post-pandemic pick up. Since we also are not provided with any subscriber data for Turner., this once again shows up as a higher cost margin. For HBO, costs increased in 2020 primarily due to \$1.8 billion in content investments. The expense driver in the next years will be higher marketing costs given the platform is competing against more established players and entering new markets across the globe.

Lastly, in Latin America, the Mexico subsegment is the only unprofitable subsegment of AT&T with a cost-to-revenue ratio of more than 100%. Because of unpredictable currency fluctuations and the Mexican peso being a risk-on currency hat is unusually weak at the moment, we forecasted this trend to continue going forward despite expected subdued subscriber growth.

### 4.5 Capital expenditures

Most of AT&T’s capital expenditures are within the Communications segment (\$14.2 billion of the total \$15.7 billion in capital expenditures in FY20). The capital is mainly spent on networks, including product development and related support systems, and is influenced by demand for services and products, capacity needs, and network maintenance and enhancements. We expect hefty capital spend on network upgrades and expansion in the next two years, as AT&T wants to strengthen its foothold in the 5G business in which competition for additional

<sup>1</sup> ‘Content spend hit record high of \$220 billion in 2020,’ *Televsual*, 2021.

coverage is extremely high. This will likely be financed by a dividend cut and potentially by the proceeds of a successful spin off of WarnerMedia.

In 2021, AT&T announced it would spend \$24 billion to expand 5G and fiber broadband network capacity starting in 2022. We believe that this is not enough to keep up with Verizon and T-Mobile (described in the 'AT&T versus Verizon and T-Mobile' section) and estimate gross capital investment to hover closer to \$26 billion in response to Verizon spending over \$50 billion on its networks in FY21, nearly double that of AT&T. We think that in the upcoming years, AT&T will raise its capital expenditures even more, assisted by lower debt levels following WarnerMedia's divestiture. We further assume constant D&A due to high investments in the last five years and longer lives (in years) of those assets. AT&T also already conducted \$18.9 billion of asset impairments in 2020.

## 4. Valuation

In this chapter, three valuation approaches are presented to calculate AT&T's fair value: a discounted cash flow (DCF) analysis, comparable company analysis (trading comparables), and precedent transactions analysis (transaction comparables). Additionally, a simplified DCF valuation was conducted for Discovery, aiming to understand whether the price AT&T agreed to pay and whether the current market valuation is fair. An in-depth analysis of potential merger synergies was also conducted and added to the fair value of AT&T obtained from the DCF.

### 4.1 Cost of Capital

First, to derive a fundamental share price for AT&T via the DCF, the company's free cash flows (FCFs) were forecasted until 2032 based on the above described assumptions on revenues and costs. The FCFs were then discounted using the weighted average cost of capital (WACC). Since AT&T primarily operates in the US, the 10Y US Treasury Yield, which yielded 1.48% as of 10 December 2021, was used as a proxy for the risk-free rate. For the market-risk premium, estimated figures range from 4% to more than 8% depending on one's outlook. We believe the S&P500's average annualized expected return in the next ten years will be at least 6% or higher and therefore assume an equity risk premium of 6.14%.<sup>2</sup>

Finally, with only beta left, several approaches were conducted to gain confidence in AT&T's expected future beta. Still, despite extensive back testing, this variable

Summary 2016-2021	
Beta according to Regression	
<b>AT&amp;T Inc. levered Beta 2016-2021</b>	<b>0.630</b>
Upper Bound	0.898
Lower Bound	0.363
AT&T Inc. unlevered Beta	0.368
Median levered Beta of Peers	0.630
Median unlevered Beta of Peers	0.284
<b>Median relevered Beta of Peers</b>	<b>0.468</b>

**Table 8: Summary of Beta regression**

Source: Analyst evaluation

<sup>2</sup> The equity risk premium of 6.14% was estimated by BM&A Advisory & Support.

Relevered Beta Development of AT&T and Peers					
Period	AT&T	Verizon	obile US lar	Corp	ologies
2016	0.41	0.19	0.28	1.00	0.09
2017	1.29	2.08	-0.05	-1.54	-0.38
2018	0.51	0.31	0.54	-0.29	0.39
2019	0.67	0.45	0.56	0.73	0.58
2020	0.77	0.53	0.54	0.63	0.61
2021	0.39	0.47	0.40	-0.05	-0.48
2016-End of 2017	0.41	0.36	0.09	0.69	-0.02
2016-End of 2018	0.49	0.31	0.35	0.12	0.15
2016-End of 2019	0.59	0.37	0.45	0.42	0.37
2016-End of 2020	0.67	0.46	0.51	0.53	0.50
2016-End of 2021	0.63	0.43	0.47	0.48	0.42
2017-End of 2018	0.59	0.38	0.46	-0.49	0.19
2017-End of 2019	0.65	0.42	0.53	0.27	0.44
2017-End of 2020	0.71	0.49	0.54	0.49	0.54
2017-End of 2021	0.67	0.46	0.50	0.43	0.45
2018-End of 2019	0.64	0.38	0.55	0.34	0.49
2018-End of 2020	0.70	0.47	0.56	0.51	0.56
2018-End of 2021	0.66	0.45	0.51	0.45	0.46
2019-End of 2020	0.73	0.51	0.55	0.67	0.60
2019-End of 2021	0.68	0.49	0.51	0.59	0.49
2020-End of 2021	0.71	0.51	0.49	0.53	0.46
Whole period	0.63	0.43	0.47	0.48	0.42
Min	0.39	0.19	-0.05	-1.54	-0.48
Max	1.29	2.08	0.56	1.00	0.61
Average	0.65	0.50	0.45	0.32	0.33
Median	0.65	0.45	0.51	0.48	0.44
Standard Deviation	0.18	0.36	0.16	0.53	0.30

**Table 9: Rolling Beta analysis of AT&T and Peers (relevered)**

Source: Analyst evaluation

remains uncertain, as future beta prediction is impossible. Nevertheless, the monthly returns of AT&T and its peer group consisting of Verizon, T-Mobile US, Lumen Technologies, US Cellular Corp were regressed against the monthly returns of the S&P 500 (in USD, as all companies are in the US) over five years starting at the end of November of the previous year. Additionally, AT&T's daily and weekly returns were regressed against the S&P 500's returns, and a rolling beta analysis was conducted. AT&T's beta yielded 0.63 between 2016 to 2021. Given the telecommunications industry has been historically rather non-cyclical, as its services are required independent of the business cycle, and the beta estimation is based on the past five years, this beta figure is in line with expectations and in the middle range of the peers' past betas. Unlevering their betas yielded a median of 0.28. Relevering this according to AT&T's capital structure resulted in a lower beta of 0.47 for AT&T (see table 8: Summary of Beta regression).

Following a rolling beta analysis, outliers of 1.29 in 2017 and 0.39 in 2021 were observed. In 2017, significantly higher and even negative betas were also observed in AT&T's peers, suggesting stronger market volatility during that period. In 2021, AT&T's beta was analyzed based on daily data, which yielded a much more normalized figure, suggesting the previous result was skewed due to fewer data points. Finally, a historic beta analysis (based on a rolling beta calculation and beta regressions over a 4- and 5-year period), weekly, and daily data) suggests that a beta below 0.6 might be unrealistic. It would underestimate volatility of AT&T's share, and a figure in the lower 0.60s seems more appropriate (see table 9: Rolling Beta analysis (relevered)).

Considering all of this, the chosen levered beta between 2016 to 2021 of 0.63<sup>3</sup> was unlevered and relevered with a target D/E ratio of 79% (vs 92% as of now) to adjust for our future expectation of a lower debt level. The relevered beta yielded 0.60, and this was used to compute the cost of equity, which yielded 5.14%.

Cost of debt was derived following an analysis of AT&T's current debt portfolio and taking into consideration our future expectations. Long-term debt with a maturity of over 20 years accounts for the largest share of AT&T's debt, so a long-term bond with a maturity of approximately 22 years was used. Based on its yield, default rate and loan recovery rate, a cost of debt of 2.27% was computed (see table 10: AT&T Cost of debt and WACC computation).

Cost of debt	
Bond	T 4.65 06/01/44 Corp
Maturity	2044
Coupon	4.65%
Rating	BBB
1y default prob.	0.03%
Loan Recovery	50.9%
<b>Cost of debt</b>	<b>2.27%</b>

Source: Bloomberg

WACC	
Cost of Equity	5.14%
Unlevered Cost of Capita	3.87%
Cost of Debt	2.27%
<b>WACC</b>	<b>3.64%</b>

Effective Tax Rate	23%
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**Table 10: AT&T Cost of debt and WACC computation**

Source: Analyst estimates

<sup>3</sup> Levered beta of 0.63 was derived by A. Damodaran from New York University.

Based on the expected average tax rate of 23% and a target E/EV-ratio of 79%, a WACC of 3.64% was derived.

## 4.2 Discovery Valuation

Again, AT&T does not publish financial statements at a segment level, so a detailed financial overview of WarnerMedia is not available. To get an estimation of the merged company's value, we valued AT&T including WarnerMedia, assuming the company will continue to operate as it is now. Discovery's company value was then estimated through several approaches with the results being compared to each other. First, the current market enterprise value (EV) was computed as of the announcement date of the merger and as of today. Secondly, a deeper analysis of Discovery and its strategic outlook was conducted in a simplified DCF valuation. This was not done to give a recommendation on whether Discovery might be a good stock pick, but to simply get another indication of the company's fair value in the context of the merger. The comparison will allow for an indication on AT&T's and Discovery's future expectations of the merged company and the expected synergies.

Future assumptions for the key items impacting the intrinsic valuation are as follows (considered independent of the planned merger with WarnerMedia): Discovery has two reporting segments, US Networks, which includes mainly television networks and digital content services in the US, and International Networks, which includes television networks and digital content services internationally in 220 countries. Both segments' revenues are mainly driven by advertising and distribution revenues and are therefore largely dependent on a growing subscriber base. Discovery has invested heavily in recent years in its so called 'Next Generation' networks, including Discovery+, a streaming service that launched in January 2021. This resulted in double-digit growth in both distribution and advertising revenues. Ongoing investments in extended content creation, a new streaming service, and further distribution channels which allow Discovery to capture subscriber growth, should continue to be reflected in strong advertising revenue growth for both the US and the International segment in 2022 and 2023. From 2024 and 2025, those effects will evaporate and with competition in the entertainment industry increasing, a more conservative growth rate was assumed. For the extended forecasting period, we assume the long-term growth rate of 1.8% (see [4.4 Intrinsic Valuation section](#)) for both segments.

Beta	
Peer Median Relevered Beta	1.32

Cost of debt	
Bond	DISCA 4.95 05/15/42 Corp
Maturity	2042
Coupon	4.95%
Rating	BBB-
1y default risk	0.88%
Loan Recovery	50.8%
<b>Cost of debt</b>	<b>2.00%</b>

WACC	
Debt	2.00%
Equity	9.59%
D/EV	46%
E/EV	54%
<b>WACC</b>	<b>5.89%</b>

**Table 11: Beta, Cost of Debt and WACC of Discovery Inc.**

Source: Analyst estimates

Regarding costs, the expansion strategy is reflected in the higher content spend and investments into Discovery+'s distribution network. This results in a slightly lower gross margin. Additionally, rising marketing expenses for Discovery+ will drive SG&A expenses higher.

PP&E purchases have grown recently, driving Discovery's capital expenditures. Discovery has made significant investments in broadcast equipment and software, aiming to build its 'Next generation' platforms. As suggested by Streamonomics<sup>4</sup>, platform and software spend in the media industry will continue to rise to keep up with competition and to take advantage of momentum in the industry. We expect investments into PP&E to grow by 10% next year, 7% in 2023 and 5% in 2024 and 2025. Long-term, we assume a growth rate of 1.8% (see [4.4 Intrinsic Valuation](#)) and constant depreciation.

The cost of capital is computed analog to AT&T and results in a WACC of 5.89% for Discovery (see table 11: Beta, Cost of Debt and WACC of Discovery Inc.). Discounting the free cash flows until 2032 along with the terminal value, an EV of \$43.5 billion (see table 12: Enterprise Value of Discovery Inc.) and an equity value of \$29.1 billion (after deducting net debt) is calculated, equivalent to a share price of \$41.92 as of December 2022. Discovery currently trades at \$23.29 (10 December 2021), which represents an EV (including net debt) of \$26.3 billion, meaning the stock trades 56% below our approximation of its fair value. We believe Discovery's actual value is somewhere in between. Its market value was significantly harmed following the collapse of Archegos Capital Management in March 2021, which had performed large block trades. As a result, shares plunged 45% in the last week of March 2021 and following the announced merger, there were no strong motivators for investors to buy the stock. Investors who believe in the merged company's growth potential might prefer to purchase AT&T stocks. Thus, we do not think the company will be able to realize the suggested upside potential and assume a median EV of \$34.9 billion (of which 71% is added to AT&T's valuation).

### 4.3 Synergy Potential

The planned merger of WarnerMedia and Discovery appears to be a smart move for both companies, as it unites two strong, yet smaller individually, brands in the crowded, competition-intense media landscape. After the merger, they will unite the HBO Max and Discovery+ streaming platforms, which include popular TV channels like CNN, TNT, Food Network Discovery Channel, Eurosport and TLC,

Implied Enterprise Value and Implied Share Price	
Present value of forecasted free cash flows	19,321
Present value of terminal value	24,156
Implied enterprise value	43,477

Net debt	14,413
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<b>Implied equity value</b>	<b>29,064</b>
Non-controlling interest (Fair Value) as of end 2022	(124)

<b>Implied share price (in \$)</b>	<b>41.92</b>
Current share price (as of 10/12/2021 in \$)	23.29
Implied upside potential	55.6%

EV DCF	43,477
EV market	26,306
Median	34,892
<b>Company value attributable to AT&amp;T</b>	<b>24,773</b>

**Table 12: Enterprise Value if Discovery Inc. (in \$m if not indicated differently)**

Source: Analyst estimates

	TV shows	Movies	Sum
Amazon PrimeVideo	2,400	4,900	7,300
Netflix	3,600	3,700	7,300
Disney+	727	983	1,710
Apple TV+	54	18	72
HBO Max	1,500	2,200	3,700
Discovery+	5,600	0	5,600
<b>HBO Max &amp; Discovery</b>	<b>7,100</b>	<b>2,200</b>	<b>9,300</b>
Average	2,314	1,967	4,280

**Table 13: Content offering of largest streaming services in the US (no. of movies and TV shows)**

Source: Statista

<sup>4</sup> 'An Industry Transformed: Four Emerging Trends in Film and TV,' *Visual Capitalist*, 2021.

across geographic borders. This is possible because they have a similar, but not overlapping, content offering, with 7,100 tv shows and 2,200 movies<sup>5</sup> in total. The combined company will thus become one of the largest content providers globally. For comparison, Amazon Prime offers 2,400 TV shows and 4,900 movies and Netflix offers 3,600 TV shows and 3,700 movies, illustrating how they are lagging in terms of total content (see table 13: *Content offering of largest streaming services in the US*).

We believe this will put the new company into a favorable position in an industry where competition is increasing rapidly. Content spend across the largest US media and entertainment companies is expected to grow at a CAGR of 10.35% until 2025<sup>6</sup> (see table 14: *Content spend of largest streaming companies in the US*), while pricing for streaming services is getting more and more competitive. A study by Limelight Networks found out that the pricing of online streaming services is the main reason for subscription cancellation. The merged company will not only profit from its extensive content, but also from scale which could enable a more competitive pricing.

Looking at revenue synergies, it makes sense to consider whether the combined offering has the potential to attract subscriber growth. As of now, it has not been disclosed if the companies plan to combine their streaming service platforms or if they will remain individual. According to Discovery's CEO (and the merged companies' soon-to-be CEO) David Zaslav, not even half of Discovery's subscribers are also customers of HBO Max, suggesting subscriber growth potential. We believe revenue synergies can arise from bundled offerings and cross-selling, a popular business strategy especially in the digital era. Consumers' willingness to pay for several subscriptions is low but bundling it with other services gives more leverage to increase pricing. Disney has successfully done that back in March 2021 when it increased prices by \$1 but offered content bundles with Hulu and ESPN+.

Looking at expenses, synergies could potentially result from distribution, marketing, and SG&A savings. Discovery already has a large international distribution network, as it is available in more than 25 countries. It reached this level by forming partnerships to extend its global footprint (e.g. it partnered with Starzplay, one of the fastest growing streaming service in the Middle East and Northern African region (MENA). This might help HBO in its international

\$m	2020	2025E	CAGR
Disney	19	25	5.64%
NBCUniversal	14	19	6.30%
ViacomCBS	11	17	9.10%
Netflix	11	19	11.55%
Amazon Prime V	8	19	18.89%
Apple TV+	3	9	24.57%
<b>Total</b>	<b>66</b>	<b>108</b>	<b>10.35%</b>

**Table 14: Content spend of largest streaming companies in the US**

Source: Statista

<sup>5</sup>Content spending of selected traditional media and streaming companies worldwide in 2020 and 2022,' Statista, 2021.

<sup>6</sup>'Subscription video-on-demand market in the United States'. Statista, 2021

expansion plans without increasing expenses too much, since the infrastructure is already in place. Moreover, after the merger, both streaming services can profit from shared distribution agreements with relevant platforms like Amazon Fire TV, Android TV, and Apple TV, enabling each other to reach more subscribers.

Regarding marketing synergies, both streaming platforms will be able to promote their services via advertisements on each other's platforms. Discovery's costs in 2021 were mainly driven by marketing expenses for the promotion of the Discovery+ platform that launched in January 2021. The platform bundles all of Discovery's channels together plus additional exclusive content. Discovery's SG&A as of 3Q21 increased 54% YoY, driven by higher marketing and content production expenses to support the launch. HBO Max already launched and is fairly successful in the US. It will have to invest less heavily into new content but could profit strongly from advertisement on Discovery channels.

Considering SG&A expenses, both companies can share corporate divisions as well as production facilities. Looking at previous mergers in the industry, such as Viacom and CBS in 2019, supports this. Synergies from that deal resulted from the sale of real assets (CBS sold its headquarters) and layoffs, as both firms could share assets and eliminate overlapping business functions. This type of cost synergies will likely take longer to be fully realized. However, they might be the most sustainable ones and can potentially last long-term.

Still, quantifying potential synergies is tough, as transparency from both companies regarding their cost structure is low. Plus, there is not much published besides the SEC filing of the merger announcement that mentioned '\$3 billion in expected cost synergies annually.' In order to verify this estimation, we looked at the acquisition of Time Warner by AT&T in 2018 and examined whether the estimated potential synergies when the merger closed (which were expected to be approximately \$2.5 billion three years post-closing) could be realized in the following years. To do this, we checked historic Time Warner reporting for revenue and expense figures before the acquisition. Based on those figures, a historic growth rate for revenues as well as expenses was computed (from 2012 to 2017 but excluding 2014 due to being an outlier). Based on the average historic growth rate of Time Warner, we estimated hypothetical figures for revenue and expenses for 2018 and 2019 (2020 was excluded due to influence from the pandemic) assuming that the company would have not been acquired by AT&T. Those hypothetical figures were compared to the actual revenues and expenses of WarnerMedia (taken from AT&T's reporting).

While this analysis is only a very rudimentary attempt to find a proxy for the actually-realized synergies, it suggests that AT&T was able to realize close to \$700

million of synergies in 2018 in only half a year after the acquisition (which closed on the 15 of June) and approximately \$1 billion in in the first full year, which equals expected synergies of 27% in 2018 and 40% in 2019 being achieved. We assumed the same percentages of estimated synergies (\$3 billion) for the WarnerMedia and Discovery synergies. After the full \$3 billion could be realized in 2025, or three years after the expected closure of the deal, we expect them to decline from 2026 onwards as competition rises, cost pressure continues to increase, and the new company's 'edge' regarding content fades away.

Based on these calculations, we believe total synergies for WarnerMedia and Discovery will be approximately \$1.2 billion in 2023, \$2.5 billion in 2024, and the full \$3 billion in 2025. Afterwards, synergies will likely decrease, and only overhead and marketing synergies will remain. Discounting those annual synergies results in a compound synergy potential of \$11.9 billion (*see table 15: Synergy estimation of WarnerMedia and Discovery merger*) of which 71% was added to AT&T's intrinsic value (including WarnerMedia) from the DCF.

in \$m	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
<b>Estimated annual synergy</b>	822	1,214	2,500.0	3,000	1,500	1,000	750	750	750	750	750
<i>Discount factor AT&amp;T</i>	1.00	0.96	0.93	0.90	0.87	0.84	0.81	0.78	0.75	0.72	0.70
Discounted synergies	822	1,172	2,327	2,695	1,300	836	605	584	563	544	525
<b>Compound synergies</b>	<b>11,974</b>										

**Table 15: Synergy estimation of WarnerMedia and Discovery merger (\$m)**

Source: Analyst estimates

While this suggests that the merger will create value for AT&T, it may also be considered in the following way: the spin-off of WarnerMedia was a necessary step for AT&T to refocus on its core telecom business and commit entirely to defending its market-leading position there. Likewise, it can be considered a necessary step for Discovery too, as survival in the highly competitive streaming industry will be a challenge for smaller players in the next years. "Additional consolidation in the filmed entertainment and TV industries will be largely driven by streaming services providers' need for larger content catalogues to satisfy consumers' insatiable demand for hit content", says Mike Chapman<sup>7</sup>, an entertainment & media sector expert at Kearney. Thus, we believe the merger of WarnerMedia and Discovery and potential synergies arising from it have a subordinate role in terms of AT&T's future value creation and we rather see it as a necessary step to prevent future value destruction.

**Implied Enterprise Value and Implied Share Price**

Present value of forecasted free cash flows	136,691
Present value of terminal value	269,096
<b>Implied enterprise value</b>	<b>405,788</b>

Net debt	202,563
Non-operating assets (Fair Value) as of end 2022	69,240
<b>Non-operating liabilities</b>	<b>100,411</b>

<b>71% of Discovery value</b>	<b>24,773</b>
<b>71% of compound merger synergies</b>	<b>8,501</b>

<b>Implied equity value</b>	<b>205,328</b>
Non-controlling interest as of end 2022	17,567

<b>Implied share price as of December 2022 (in \$)</b>	<b>26.09</b>
Share price as of 10/12/2021 (in \$)	22.84
<b>Implied upside/downside</b>	<b>14.2%</b>

<b>Return for shareholder incl. dividend</b>	<b>18.7%</b>
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**Table 16: Enterprise Value and target share price of AT&T (in \$m if not stated differently)**

Source: Analyst estimates

<sup>7</sup> "The Streaming Wars Will End in Treaties. They Won't Be Pretty". *Observer*, 2021

## 4.4 Intrinsic Valuation

The unlevered operating FCFs from 2022 to 2032, as well as the terminal value, were discounted using the WACC. The perpetual long-term growth rate of 1.8% (as mentioned in the Discovery Valuation section) is based on historic nominal US GDP growth, which was 3.5% between 2005 and 2020<sup>8</sup>. Historic US inflation for the same period was 1.48%<sup>9</sup>. However, the telecom industry is very mature. As already mentioned in the 'Revenues' section, the market is quite exhausted, and growth is mainly achieved by users switching providers, not by the market itself growing. Hence, as of 2032, we expect AT&T to grow by a slightly higher rate than historic average US inflation of 1.8%.

Finally, the EV as a sum of the discounted cash flows (\$137 billion) and terminal value (\$385 billion) was reduced by net debt as of 2022E and adjusted for the non-operating business (i.e. less non-operating liabilities/plus non-operating assets) to derive the equity value (see table 16: Enterprise Value and target share price of AT&T). Lastly, the equity value was adjusted for non-controlling interest and 71% corresponding the fair value of Discovery (\$24.7 billion) and expected synergies (\$8.5 billion) were added, equaling our estimation of the current fair value of AT&T assuming the merger happens (base case) of \$26.09.

## 4.5 Relative valuation

To achieve a higher confidence of the previously computed fundamental share price, further valuations were conducted based on a peer comparison and past transactions. To assess AT&T's share price range, its company value was compared to that of its competitors by taking into consideration both EV and equity multiples. To achieve a representative comparison, the peer group was created based on operational focus and capital structures. This resulted in the prior mentioned peer group of Verizon, T-Mobile US, Lumen Technologies, US Cellular Corp, Rogers Communications, Telus Corp and American Tower Corp.

Those peers were compared based on their P/E, EV/EBITDA, and EV/Revenue multiples for 2020 (historic), 2021 (current) and 2022E (forward-looking). For the Communications industry, P/E and EV/EBITDA multiples are considered the most relevant, since Communications companies have a capital-intensive balance sheet and high depreciation. Using EBITDA, a performance measure before D&A, interest, and tax, results in a less biased outcome. Share price ranges were derived

**Multiples Communications (in \$)**

	2020		
	1st Quartile	Median	3rd Quartile
P/E	-	-	-
EV/EBITDA	17.26	47.45	59.93
EV/Revenue	23.79	54.57	65.65

	2021E		
	1st Quartile	Median	3rd Quartile
P/E	12.01	22.74	59.81
EV/EBITDA	16.42	37.36	48.96
EV/Revenue	22.00	43.52	58.24

	2022E		
	1st Quartile	Median	3rd Quartile
P/E	12.00	20.08	44.58
EV/EBITDA	11.94	27.49	44.08
EV/Revenue	19.19	27.94	43.61

**Past Transactions Communications (in \$)**

	2022E		
	1st Quartile	Median	3rd Quartile
EV/Revenues	12.33	28.01	56.17
EV/EBITDA	21.40	36.73	54.88
EV/EBIT	8.01	23.58	54.62

**Table 17: Share price calculation of AT&T based on trading multiples (in \$)**

Source: Analyst estimates

DCF Share Price (in \$)	26.09
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Multiples	
Average Communications multiples share price	27.88
Average E&M multiples share price 2022E	78.87

Past transactions	
Average Communications past transactions sh	34.92
Average E&M past transactions share price	66.74

12-month share price target	26.09
<b>Current Share Price</b>	22.84

Upside/Downside	14.2%
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**Table 18: Summary of share price calculation of AT&T based on trading and transaction multiples (in \$)**

Source: Analyst estimates

<sup>8</sup> According to the Federal Reserve Bank of St. Louis.

<sup>9</sup> According to the US Bureau of Labor Statistics.

based on 1st quartile, median and 3rd quartile multiples. 2020 P/E multiples can be excluded due to AT&T's negative net income.

Overall, the implied share price range for AT&T is in line (*see table 17: Share price calculation of AT&T based on trading multiples*) with the fair value from the DCF. The average forward-looking share price (average of 1<sup>st</sup> quartile, median and 3<sup>rd</sup> quartile for P/E, EV/EBITDA, and EV/Revenue) yields \$27.88 ('Average Communications multiples share price').

Lastly, to complement our view of AT&T's market value, a list of past industry transactions in the last 20 years was analyzed. However, due to the size of our target company and the specific operational portfolio, only six past transactions were considered relevant, including the acquisition of Sprint by T-Mobile in 2018. The transactions were compared via EV/Revenue, EV/EBITDA, and EV/EBIT multiples. However, the latter yielded a share price range that seems to be far below a realistic share value of AT&T because of a biased EBIT due to high depreciation. The average share price (average of 1st quartile, median and 3rd quartile for P/E and EV/EBITDA) yields \$34.92 (*see table 18: Summary of share price calculation of AT&T based on trading and transaction multiples*), which is slightly higher than the fair value from the DCF valuation. However, this can be explained by the acquisition premium. Hence, the average past transaction price supports a fair value of slightly below \$30 and the target share price from the DCF.

For the sake of completeness and to get a holistic view of AT&T's share price, a multiples valuation was also conducted based on a media peer group. Both the trading and transaction multiples derived from the peer group imply significantly higher share prices. For example, AT&T's predicted share price in 2022E yields \$78.87 when using multiples from media companies. This can be explained by the fast development of the media industry, with new rising stars like Netflix, which post strong growth thanks to innovative business models. This is often reflected in an overvaluation of such stocks, and was hence not taken into further consideration for AT&T's valuation.

## 4.6 Scenario Analysis

As mentioned in the 'Revenues' section, we built out three scenarios that examine how AT&T would fare depending on the success of the return to its telecommunications core. In both the upside and downside case, we assume that the variance will come from AT&T's core Mobility and Broadband subsegments and WarnerMedia. This is because Mobility and Broadband will receive most of the \$24 billion in capital expenditures per year, and both subsegments have already been highlighted as the company's focus going forward. The remaining

deviation will come from WarnerMedia, as the company's potential as a standalone media and entertainment giant is highly variable and depends on whether it receives regulatory approval to merger with Discovery.

In the upside case, we assume that AT&T will benefit from the 5G upgrade cycle until the end of 2022, as well as a recapture of market share of fiber broadband consumers from its competitors. Additionally, we assume that Turner will gain more subscribers due to its exclusive rights to three of the four major North American sports leagues. HBO will be able to expand into every country as expected, which will also lift Warner Bros. due to their interconnected relationship.

In the upside case (see table 19: AT&T target share price calculation - upside scenario), the recommendation is a strong buy, as the shareholder could expect a 100.2% return (excl. dividends). This higher return can be explained by AT&T's largest segment, Communications, benefitting from longer-lasting consumer tailwinds allowing it to claw back significant market share from Verizon and T-Mobile, as well as a successful expansion of its highly coveted, high-ARPU fiber broadband network. WarnerMedia, the second-largest segment, also gains from the increased interest in its major sporting leagues, as well as a fast-growing HBO that is supposed to launch in over sixty new territories in the coming years. The upside case, however, does not seem very probable because it assumes sustained outsized growth in Mobility, but the subsegment operates in an extremely, saturated, mature industry. Additionally, with the large amount of streaming platforms available, HBO's ability to differentiate itself as a new entrant into so many countries will be stiffly tested.

In the downside case (see table 20: AT&T target share price calculation - downside scenario), we assume that AT&T's telecommunications core will be in line with the base case, as the outperformance that is already factored into the model has already occurred in 2021. In this case, we wanted to examine what would happen if the WarnerMedia spin off does not go well. With AT&T's pivot back into the telecom market dependent on a successful spin off, this new venture will influence its future stock price. In this case, the implied share price is \$10.46, or an implied -49.7% loss for the shareholder.

Because AT&T's revenues are in the billions and are concentrated into three revenue streams, slight changes in percentage growth greatly affect the implied share price. For this reason, the upside and downside case are subject to the accuracy of our projections, and there is a lot of room of variance from our final numbers.

**Implied Enterprise Value and Implied Share Price**

Present value of forecasted free cash flows	159,872
Present value of terminal value	387,969
Implied enterprise value	547,841

Net debt	203,294
Non-operating assets (Fair Value) as of end 2022	69,240
Non-operating liabilities	100,411

71% of Discovery value	24,773
71% of compound merger synergies	8,501

Implied equity value	346,650
Non-controlling interest as of end 202	17,567

Implied share price as of December 2022 (in \$)	45.73
Share price as of 10/12/2021 (in \$)	22.84
Implied upside/downside	100.2%

Return for shareholder incl. dividend	104.7%
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**Table 19: AT&T target share price calculation - upside scenario (in \$m if not stated differently)**

Source: Analyst estimates

**Implied Enterprise Value and Implied Share Price**

Present value of forecasted free cash flows	126,587
Present value of terminal value	199,689
Implied enterprise value	326,276

Net debt	202,245
Non-operating assets (Fair Value) as of end 2022	69,240
Non-operating liabilities	100,411

71% of Discovery value	-
71% of compound merger synergies	-

Implied equity value	92,860
Non-controlling interest as of end 202	17,567

Implied share price as of December 2022 (in \$)	10.46
Share price as of 10/12/2021 (in \$)	22.84
Implied upside/downside	-54.2%

Return for shareholder incl. dividend	-49.7%
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**Table 20: AT&T target share price calculation - downside scenario (in \$m if not stated differently)**

Source: Analyst estimates

## 5. Risk Analysis

The following company specific risks have been identified, but the following list is non-exhaustive and further investment and market risks need to be considered.

The Covid-19 pandemic is not over yet and continues to threaten economic stability and AT&T's operations. While recurrent strict lockdowns are rather unlikely given governments' ambitions to raise vaccination rates and to contain the virus, an unforeseen variant that causes a surge in Covid-19 cases combined with less-effective-than-predicted vaccines could put pressure on AT&T's operating result. As social distancing measure remains, movie and TV content production may see higher expenses from safety measures on set. Additionally, safety measures in retail stores, as well as within field operations, may mean customers cannot be served to their fullest satisfaction. This not only drives costs, but it may also result in higher service terminations and revenue slumps.

Another key risk is the US government potentially blocking the WarnerMedia and Discovery merger. This might lead to a sharp drop in the share price because of a negative market reaction, but it would also negatively impact AT&T's reputation. Moreover, the impact on the current debt level, which would not be reduced as predicted, could significantly harm AT&T's ability to deploy the necessary amount of capital to acquire further network capacity and to keep up with technological advancements, which is crucial in defending its market share.

Another major risk arises from AT&T potentially missing out on technological developments, which can result in a strong loss of market share. Even though HBO is a key strategic component for WarnerMedia's success, it faces strong competition. Offering the most up-to-date services and winning production and broadcasting rights for in-demand content will be crucial to attract and retain subscribers. Meanwhile, the communications industry is evolving, and AT&T has to keep up with the intersection of content and distribution channels despite separating WarnerMedia from its core business. Finally, with more and more networks being adapted for 5G, new trends like edge computing<sup>10</sup> offer opportunities for telcos to leverage core capabilities and to tap into new growth

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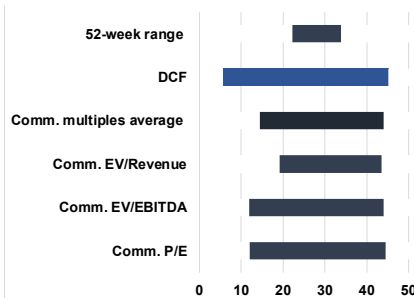
<sup>10</sup> Edge computing is a distribution technology that enables decentralized data processing, meaning data is not necessarily sent and processed on servers in data centers but within the network, which enables higher speed and saves bandwidth. (Source: Infineon Technologies AG).

areas. Recognizing and betting on the right innovations and technological developments will be crucial for AT&T to defend its competitive positioning.

## 6. Recommendation

Based on the 12-month price target of \$26.09, we give a “Buy” recommendation to AT&T Inc as of 17 December 2021. Given the current share price of \$22.84 (as of 10 December 2021) and an expected dividend in FY22 of \$1.02, this represents an upside potential of 18.7% for investors.

This recommendation is based on a mixed view on AT&T. The spin-off of WarnerMedia can be considered a beneficial move as it enables AT&T to focus on its core business and improves its capability to invest in its telecom business. As already seen in 2021. The positive outlook is clouded, as competitors were able to take market share on costly adventure for its shareholders. Investors that bought AT&T shares five years ago lost a total of 36.49% in value (or \$15.52 per share) as of 1st of December 2021 (before dividends). Long term, AT&T might be able to tap into new Communications subsegments, but for now we do not see a concrete growth case in either the telecom industry or in the WarnerMedia and Discovery merger that might suggest future value potential for AT&T.



**Figure 23: Football field - overview of target share price ranges (In \$)**

Source: Analyst estimates

On the other hand, AT&T is still the market leader in the US telecom market with large network capabilities and valuable assets. Based on the target share price, it offers a dividend yield of 3.1% (as of 2022, taking into account an expected dividend cut in 2022) in a low interest rate environment, providing a reliable investment opportunity for value investors.

Most value stocks like AT&T have lost significant market value since Covid-19. Between the 15 March 2020, when the pandemic hit globally, and the 1 December 2021, AT&T's share lost 35.5%. Extensive monetary policy was used to combat the pandemic, so investors largely preferred growth stocks (especially big technology names like Tesla and Apple) in hopes of participating in their rally in the economic upcycle. Additionally, following long periods of lockdowns in which people were forced to shift their lives online using new tech and entertainment applications, these companies did exceptionally well. As the Fed started to speed up tapering and the probability of interest rate hikes increases, which hurts long-term earnings expectations of growth companies, momentum investing might become less popular and 2022 might be the year investors return to value stocks. Based on our valuations, which suggest a fair value slightly below \$30 (see figure 23: Football field - overview of target share price ranges), we believe that AT&T is currently significant undervalued due to the economic environment and consider it

likely that the share price will recover to its fair value over a period of 12 months. This means that right now is a currently cheap opportunity for investors to buy into AT&T. Hence, we give a buy recommendation for AT&T until the share price recovered to its fair value of approximately \$26.09.

## 7. Final Remarks

This report and the underlying valuation model assume a continued operation including WarnerMedia and do not reflect a potentially lower debt level post-merger. Assuming AT&T would continue to operate with WarnerMedia, it is assumed that it would still have to invest heavily into additional network capacity to remain competitive in the communications industry, which is reflected in higher capex and increasing PPE, and financed by additional debt which would strongly burden the balance sheet and most likely result in a downgrade of its debt rating. Goodwill was also forecasted as if WarnerMedia will continue to be part of AT&T. It was particularly driven high following the Time Warner acquisition in 2018 due to the high amounts of intangible assets in the entertainment & media industry such as subscriber bases and advertising customer bases, as well as marketing related intangible values like brand names, TV and radio station names and broadcasting rights. Hence, after the spin-off it will most likely be at a significantly lower level than what we predict in the model. However, since we are not assuming any particular M&A activity in the future, goodwill is not expected to have a huge impact on valuation. Additionally, given that AT&T has to divest two failed media deals, it can be assumed that it will be more conservative in the future, so that we forecasted at a constant level.

This report does not include an ESG analysis. This is not because AT&T is not engaged regarding ESG factors. It has committed to net zero emissions and monitors its ESG performance closely. This engagement was not considered in the valuation as we estimate its impact as neither positive nor negative. AT&T's commitment to ESG is in line with those of its competitors and is currently not leading to a competitive advantage.



Balance Sheet Part II

Non-core business														
Cash and cash equivalents	2,528	9,163	6,875	6,875	6,875	6,875	6,875	6,875	6,875	6,875	6,875	6,875	6,875	6,875
Other current assets	17,704	18,364	20,231	18,766	18,766	18,766	18,766	18,766	18,766	18,766	18,766	18,766	18,766	18,766
<b>Total current non-core assets</b>	<b>20,232</b>	<b>27,527</b>	<b>27,106</b>	<b>25,641</b>	<b>25,641</b>	<b>25,641</b>	<b>25,641</b>	<b>25,641</b>	<b>25,641</b>	<b>25,641</b>	<b>25,641</b>	<b>25,641</b>	<b>25,641</b>	<b>25,641</b>
Other intangible assets, net	26,269	20,798	15,386	20,818	18,092	15,386	15,386	15,386	15,386	15,386	18,102	18,099	17,420	17,014
Investments in and advances to equity affiliates	6,245	3,695	1,780	1,780	1,780	1,780	1,780	1,780	1,780	1,780	1,780	1,780	1,780	1,780
Other assets	24,809	22,754	23,617	23,727	23,727	23,727	23,727	23,727	23,727	23,727	23,727	23,727	23,727	23,727
<b>Total non-current non-core assets</b>	<b>57,323</b>	<b>47,247</b>	<b>40,783</b>	<b>46,324</b>	<b>43,599</b>	<b>40,893</b>	<b>40,893</b>	<b>40,893</b>	<b>40,893</b>	<b>40,893</b>	<b>43,609</b>	<b>43,605</b>	<b>42,927</b>	<b>42,249</b>
<b>Total non-core assets</b>	<b>77,555</b>	<b>74,774</b>	<b>67,889</b>	<b>71,966</b>	<b>69,240</b>	<b>66,534</b>	<b>66,534</b>	<b>66,534</b>	<b>66,534</b>	<b>66,534</b>	<b>69,250</b>	<b>69,247</b>	<b>68,569</b>	<b>67,890</b>
Accrued taxes	1,179	1,212	1,019	-	-	-	-	-	-	-	-	-	-	-
<b>Total current non-core liabilities</b>	<b>1,179</b>	<b>1,212</b>	<b>1,019</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Deferred income taxes	57,859	59,502	60,472	56,234	56,234	56,234	56,234	56,234	56,234	56,234	56,234	56,234	56,234	56,234
Postemployment benefit obligation	19,218	18,788	18,276	18,276	18,276	18,276	18,276	18,276	18,276	18,276	18,276	18,276	18,276	18,276
Other noncurrent liabilities	30,233	29,421	28,358	25,901	25,901	25,901	25,901	25,901	25,901	25,901	25,901	25,901	25,901	25,901
<b>Total non-current non-core liabilities</b>	<b>107,310</b>	<b>107,711</b>	<b>107,106</b>	<b>100,411</b>	<b>100,411</b>	<b>100,411</b>	<b>100,411</b>	<b>100,411</b>	<b>100,411</b>	<b>100,411</b>	<b>100,411</b>	<b>100,411</b>	<b>100,411</b>	<b>100,411</b>
<b>Total non-core liabilities</b>	<b>108,489</b>	<b>108,923</b>	<b>108,125</b>	<b>100,411</b>	<b>100,411</b>	<b>100,411</b>	<b>100,411</b>	<b>100,411</b>	<b>100,411</b>	<b>100,411</b>	<b>100,411</b>	<b>100,411</b>	<b>100,411</b>	<b>100,411</b>
<b>Financing activities</b>														
Debt maturing within one year	10,255	11,838	3,470	22,819	10,656	12,156	12,829	13,881	15,056	16,064	17,181	18,634	19,980	21,480
<i>as % of Total long-term debt</i>	6.2%	7.8%	2.3%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%
Dividends payable	3,854	3,781	3,741	3,491	3,491	3,491	3,491	3,491	3,491	3,491	3,491	3,491	3,491	3,491
<b>Total current financing liabilities</b>	<b>14,109</b>	<b>15,619</b>	<b>7,211</b>	<b>26,309</b>	<b>14,147</b>	<b>15,646</b>	<b>16,320</b>	<b>17,372</b>	<b>18,546</b>	<b>19,555</b>	<b>20,672</b>	<b>22,125</b>	<b>23,471</b>	<b>24,970</b>
Total long-term debt	166,250	151,309	153,775	171,196	195,292	206,113	223,011	241,881	258,087	276,035	299,378	320,994	345,091	372,214
<i>Increase (decrease in long-term debt)</i>	40,279	(14,941)	2,466	17,421	24,096	10,822	16,897	18,870	16,206	17,948	21,344	21,616	24,096	30,306
Operating lease liabilities	-	21,804	22,202	-	-	-	-	-	-	-	-	-	-	-
<b>Total non-current financing liabilities</b>	<b>166,250</b>	<b>173,113</b>	<b>175,977</b>	<b>171,196</b>	<b>195,292</b>	<b>206,113</b>	<b>223,011</b>	<b>241,881</b>	<b>258,087</b>	<b>276,035</b>	<b>299,378</b>	<b>320,994</b>	<b>345,091</b>	<b>372,214</b>
<b>Total financing liabilities</b>	<b>180,359</b>	<b>188,732</b>	<b>183,188</b>	<b>197,505</b>	<b>209,439</b>	<b>221,760</b>	<b>239,331</b>	<b>259,252</b>	<b>276,633</b>	<b>295,590</b>	<b>320,050</b>	<b>343,119</b>	<b>368,561</b>	<b>429,179</b>
<b>Stockholders' equity</b>														
<b>Stockholders' equity</b>	<b>184,089</b>	<b>184,221</b>	<b>161,673</b>	<b>163,555</b>	<b>165,139</b>	<b>164,149</b>	<b>161,879</b>	<b>157,401</b>	<b>155,025</b>	<b>150,667</b>	<b>143,771</b>	<b>133,821</b>	<b>121,659</b>	<b>105,808</b>
Preferred stock	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common stock	7,621	7,621	7,621	7,621	7,621	7,621	7,621	7,621	7,621	7,621	7,621	7,621	7,621	7,621
Additional paid-in capital	125,525	126,279	130,175	130,175	130,175	130,175	130,175	130,175	130,175	130,175	130,175	130,175	130,175	130,175
Retained earnings	58,753	57,936	37,457	39,339	40,923	39,933	37,663	33,185	30,809	26,451	19,555	9,605	(2,557)	(18,408)
Treasury stock	(12,059)	(13,085)	(17,910)	(17,910)	(17,910)	(17,910)	(17,910)	(17,910)	(17,910)	(17,910)	(17,910)	(17,910)	(17,910)	(17,910)
Accumulated other comprehensive income	4,249	5,470	4,330	4,330	4,330	4,330	4,330	4,330	4,330	4,330	4,330	4,330	4,330	4,330
Non-controlling interest	9,795	17,713	17,567	17,567	17,567	17,567	17,567	17,567	17,567	17,567	17,567	17,567	17,567	17,567
<b>Total equity</b>	<b>\$ 193,884</b>	<b>\$ 201,934</b>	<b>\$ 179,240</b>	<b>\$ 181,122</b>	<b>\$ 182,706</b>	<b>\$ 181,716</b>	<b>\$ 179,446</b>	<b>\$ 174,968</b>	<b>\$ 172,592</b>	<b>\$ 168,234</b>	<b>\$ 161,338</b>	<b>\$ 151,388</b>	<b>\$ 139,226</b>	<b>\$ 123,375</b>

Statement of Cash Flows

in \$m	Cash Flow Statement   Reformulated														
	2018A	2019A	2020A	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Core operating income	\$ 36,715	\$ 39,946	\$ 36,397	\$ 34,414	\$ 36,095	\$ 33,316	\$ 32,236	\$ 30,198	\$ 33,869	\$ 32,116	\$ 29,714	\$ 26,902	\$ 25,118	\$ 21,528	\$ 17,491
Notional taxes	(7,710)	(8,389)	(7,643)	(7,227)	(7,580)	(6,996)	(6,770)	(6,341)	(7,112)	(6,744)	(6,240)	(5,649)	(5,257)	(4,521)	(3,673)
Adjusted taxes	303	385	(1,565)	(695)	(729)	(673)	(651)	(610)	(684)	(649)	(601)	(544)	(508)	(435)	(353)
<b>NOPLAT</b>	<b>29,308</b>	<b>31,943</b>	<b>27,189</b>	<b>26,491</b>	<b>27,786</b>	<b>25,647</b>	<b>24,815</b>	<b>23,246</b>	<b>26,072</b>	<b>24,722</b>	<b>22,873</b>	<b>20,709</b>	<b>19,335</b>	<b>16,572</b>	<b>13,465</b>
Depreciation and Amortization	16,415	16,959	17,410	17,513	18,284	19,018	18,661	19,350	18,572	18,828	19,400	20,043	19,310	20,021	20,798
<b>Gross free cash flow</b>	<b>45,723</b>	<b>48,902</b>	<b>44,599</b>	<b>44,005</b>	<b>46,070</b>	<b>44,664</b>	<b>43,477</b>	<b>42,596</b>	<b>44,644</b>	<b>43,551</b>	<b>42,273</b>	<b>40,751</b>	<b>38,645</b>	<b>36,593</b>	<b>34,263</b>
Net capital expenditures	(22,666)	(15,614)	(14,597)	(25,500)	(27,530)	(27,561)	(27,592)	(27,624)	(27,656)	(27,689)	(27,723)	(27,757)	(27,793)	(27,828)	(27,865)
Cash and cash equivalents	300	291	(102)	117	69	53	51	66	40	41	42	43	44	44	45
Accounts receivable	9,950	(3,836)	(2,421)	(3,056)	399	307	293	378	233	237	242	246	251	255	260
Prepaid expenses	678	(416)	191	(480)	31	24	23	30	18	19	19	19	20	20	20
Accounts payable and accrued liabilities	8,714	2,772	3,076	(7,769)	959	738	704	908	560	570	581	592	603	614	626
Advanced billings and customer deposits	1,735	176	52	(1,498)	20	185	215	200	4	160	179	199	218	238	258
Change in net working capital	(479)	6,909	5,460	(5,848)	480	539	552	635	272	433	458	482	507	532	558
Change in all other operating assets	(79,380)	(27,892)	13,878	9,426	(7,476)	(6,033)	(6,923)	(7,805)	(6,193)	(6,172)	(6,984)	(5,890)	(5,982)	(5,904)	(5,758)
Change in all other operating liabilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Operating free cash flow</b>	<b>(56,801)</b>	<b>12,305</b>	<b>49,340</b>	<b>22,082</b>	<b>11,544</b>	<b>11,609</b>	<b>9,514</b>	<b>7,802</b>	<b>11,067</b>	<b>10,123</b>	<b>8,024</b>	<b>7,587</b>	<b>5,378</b>	<b>3,393</b>	<b>1,198</b>
Non-operating income	(3,885)	(13,056)	(31,328)	(13,574)	(14,921)	(14,921)	(14,921)	(14,921)	(14,921)	(14,921)	(14,921)	(14,921)	(14,921)	(14,921)	(14,921)
Non-operating taxes	816	2,742	6,579	2,851	3,133	3,133	3,133	3,133	3,133	3,133	3,133	3,133	3,133	3,133	3,133
Other comprehensive income	(2,142)	1,212	(1,199)	-	-	-	-	-	-	-	-	-	-	-	-
Total comprehensive income (loss) attributable to non-controlling interest	(551)	(1,063)	(1,296)	-	-	-	-	-	-	-	-	-	-	-	-
Change in all non-operating assets	(36,802)	9,416	4,597	(4,077)	2,726	2,706	-	-	-	-	(2,716)	3	678	407	271
Change in all non-operating liabilities	12,498	434	(798)	(7,714)	-	-	-	-	-	-	-	-	-	-	-
<b>Non-operating free cash flow</b>	<b>(30,066)</b>	<b>(315)</b>	<b>(23,445)</b>	<b>(22,514)</b>	<b>(9,062)</b>	<b>(9,081)</b>	<b>(11,787)</b>	<b>(11,787)</b>	<b>(11,787)</b>	<b>(11,787)</b>	<b>(14,503)</b>	<b>(11,784)</b>	<b>(11,109)</b>	<b>(11,380)</b>	<b>(11,516)</b>
<b>Unlevered free cash flow</b>	<b>(86,868)</b>	<b>11,989</b>	<b>25,895</b>	<b>(432)</b>	<b>2,482</b>	<b>2,528</b>	<b>(2,273)</b>	<b>(3,985)</b>	<b>(720)</b>	<b>(1,664)</b>	<b>(6,479)</b>	<b>(4,197)</b>	<b>(5,732)</b>	<b>(7,988)</b>	<b>(10,318)</b>
Tax shield	1,671	1,769	1,664	1,735	1,875	1,991	2,110	2,280	2,472	2,640	2,823	3,060	3,283	3,529	3,805
<b>Levered free cash flow</b>	<b>(85,197)</b>	<b>13,758</b>	<b>27,559</b>	<b>1,303</b>	<b>4,358</b>	<b>4,519</b>	<b>(1,164)</b>	<b>(1,706)</b>	<b>1,752</b>	<b>976</b>	<b>(3,655)</b>	<b>(1,138)</b>	<b>(2,449)</b>	<b>(4,459)</b>	<b>(6,513)</b>
Financial result before taxes	(7,957)	(8,422)	(7,925)	(8,260)	(8,930)	(9,480)	(10,047)	(10,855)	(11,772)	(12,572)	(13,445)	(14,571)	(15,633)	(16,804)	(18,121)
Change in net financial debt	58,537	1,738	(3,256)	14,317	11,933	12,321	17,571	19,922	17,381	18,957	24,461	23,069	25,442	28,623	31,995
Change in total equity	34,617	(7,074)	(16,378)	(7,360)	(7,360)	(7,361)	(7,360)	(7,361)	(7,361)						

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<b>Buy</b>	Expected total return (including expected capital gains and expected dividend yield) of more than 10% over a 12-month period.
<b>Hold</b>	Expected total return (including expected capital gains and expected dividend yield) between 0% and 10% over a 12-month period.
<b>Sell</b>	Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.

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