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EQUITY RESEARCH REPORT - NETFLIX

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ABSTRACT

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This thesis seeks to provide a detailed analysis of Netflix, Inc. (NASDAQ: NFLX) and a recommendation on whether to buy, hold or sell its equity. For this purpose, a discounted cash flow model was built, which reflects information obtained from an in-depth research of the company’s business, streaming video on demand industry and rapidly growing competition known as “Streaming Wars”. Since this paper was written during the COVID-19 crisis, it also studies the impact of the pandemic on the company and its share price.

Keywords: Content Investment, Streaming Wars, Streaming Video on Demand, COVID-19
Netflix: Beyond the COVID-19 Era

Is the Current Stock Price Long-Lasting?

- As of 2019, Netflix’s Revenue surged from $6.7 billion in 2015 to $20.15 billion in 2019, exhibiting a CAGR of 31.31%. Revenue growth is expected to grow at CAGR 10.76% until 2024, after which it will eventually slow down as the market saturates, decreasing to a CAGR 5.82% until 2030 and converging to a long-term nominal growth of 4.21%.
- Based on the discounted cash flow model, the Netflix price target for the FY20 is valued at $402.85. Comparing to the closing price of $454,01 as of 18th May 2020, it can be concluded that the stock is currently overvalued. Expected total return is negative 11.27% and thus, the final recommendation is to sell.
- The main reason behind the current Netflix stock price overvaluation is the impact of COVID-19. The company’s membership growth accelerated due to home confinement, adding 8 million net paying subscribers in Q1 2020. We believe that this surge is only temporary, and it will decelerate over the rest of 2020, when the global pandemic restrictions will be lifted.

Company Description

Netflix is an entertainment-streaming and video-rental company, which offers an online on demand streaming subscription and DVDs by mail service. In addition to licensing the content from various studios, the company is also increasingly involved in the production of original programming.

Recommendation: SELL

Price Target FY20: $402.85

Price (as of 22-May-20): $454,01

Netflix and S&P500 One Year Historical Prices (USD)

<table>
<thead>
<tr>
<th>(Values in € millions)</th>
<th>2019</th>
<th>2020E</th>
<th>2021F</th>
</tr>
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<tbody>
<tr>
<td>Revenues</td>
<td>20,156</td>
<td>25,480</td>
<td>29,262</td>
</tr>
<tr>
<td>EBITDA</td>
<td>2,604</td>
<td>4,066</td>
<td>3,389</td>
</tr>
<tr>
<td>Net Profit</td>
<td>1,862</td>
<td>2,665</td>
<td>2,353</td>
</tr>
<tr>
<td>Paid Memberships growth</td>
<td>20%</td>
<td>24%</td>
<td>15%</td>
</tr>
<tr>
<td>ROIC</td>
<td>0.19</td>
<td>0.20</td>
<td>0.14</td>
</tr>
</tbody>
</table>

Source: Yahoo Finance

THIS REPORT WAS PREPARED EXCLUSIVELY FOR ACADEMIC PURPOSES BY DOMENICO CASTRONOVO, A MASTER IN MANAGEMENT STUDENT OF THE NOVA SCHOOL OF BUSINESS AND ECONOMICS. THE REPORT WAS SUPERVISED BY A NOVA SBE FACULTY MEMBER, ACTING IN A MERE ACADEMIC CAPACITY, WHO REVIEWED THE VALUATION METHODOLOGY AND THE FINANCIAL MODEL. (PLEASE REFER TO THE DISCLOSURES AND DISCLAIMERS AT END OF THE DOCUMENT)
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Company Overview

Company Description

Netflix is an American entertainment-streaming and video-rental company, which offers an online on demand streaming subscription and DVDs by mail service. The company was founded to provide online DVD rentals in 1997 by Mark Randolph and Reed Hastings, who is also the current Chief Executive Officer. In 2007, Netflix pioneered in the internet delivery of TV shows and movies with the launch of its streaming media service. It expanded internationally in 2010 with the streaming service available in Canada, followed by Latin America and the Caribbean and more than 130 other countries in 2016. Netflix also entered the content-production industry in 2013, debuting its first original series “House of Cards”. It has been increasingly involved in the film production henceforth, launching its production hubs in Albuquerque, New York City, Madrid and Surrey in 2019. (Netflix, 2019) (Figure 1) Nowadays, Netflix is the world’s leading streaming entertainment service with over 183 million paid subscribers in over 190 countries. (Netflix, 2020)

Business Segments and Business Model

The company operates through three segments: domestic streaming, international streaming and domestic DVD. It offers its streaming services both domestically and internationally, while the domestic members can also receive DVDs delivered to their homes. Since the domestic DVD segment continues to decline over a decade and it only accounted for 1.47% of the total Netflix revenues and 1.28% of the total subscribers as of 31st December 2019, this equity research paper mainly focuses on the domestic and international streaming segments. (Netflix, 2019) (Figure 2)

For the streaming service, Netflix uses a subscription business model offering to its customers three subscription plans – basic, standard and premium. The tiers differ in the number of simultaneous viewings and the streaming definition. (Figure 3) The plans are generally the same worldwide with some exceptions such as a lower-cost, mobile-only plan in India and Malaysia launched in 2019. (Singh, 2019) The company has miscellaneous price strategies for its subscription varying across different countries. The monthly prices range from a $8.99 to $15.99 in the United States and from a US dollar equivalent of $3 to $22 internationally. (Netflix, 2019)
Industry Overview

Media and Entertainment Industry

The media and entertainment industry has been subject to significant digital transformation in recent years driven by the rapid evolution of technology and changing consumer behaviors, especially among younger generations. Year over year, digital revenues account for a larger share of the media and entertainment industry, forecast to represent over 60% of the total revenues in 2022. (PWC, 2019) (Figure 4) Increasing affordability and accessibility of internet access will continue to drive this growth, with mobile access taking an increasing share of the total revenues. (PWC, 2019)

Despite altered consumer behaviors reshaping the industry, the global media and entertainment revenue is expected to increase at the pace that is close to historical trends. It is projected to reach $2.6 trillion by 2023, indicating a CAGR of 4.3% in the period between 2018 and 2023. (PWC, 2019) (Figure 5) Virtual reality, over-the-top video and internet advertising segments will have the highest annual growth during the forecast period. (PWC, 2019)

Over-the-Top Video

Over-the-Top (OTT) Video refers to services and content offered directly to viewers via the internet rather than a cable, broadcast or satellite provider. The global OTT Video market size was valued at $75 billion in 2017 and it is projected to reach $160 billion by 2024, growing at a CAGR of 11.4% in the period between 2017 and 2024. (Statista, 2019) (Figure 6) Expansion in the variety of contents, rising demand of live streaming channels, development of new technologies, growing demand in emerging markets and increased consumption in mature markets, particularly of video-streaming services, are the factors that contribute to the significant growth of the OTT Video market. (Allied Analytics, 2019)

The United States still dominates the OTT Video market since it is equipped with high broadband access as well as number of services. (Allied Analytics, 2019) In 2019, it accounted for 34.3% of the total global OTT Video market revenues. (Statista, 2020) However, Asia-Pacific is expected to grow at the highest rate as telecommunication providers offer OTT services with their data plans. (Allied Analytics, 2019) The region is projected to overtake North America as the world’s biggest region in terms of OTT video revenues in 2021. (PWC, 2019) (Figure 7)
Streaming Video on Demand

Video-On-Demand (VOD), one of the OTT subsets, is a video media distribution system that enables users to access video entertainment of their choice in real time. It has multiple business models differing in monetization - transactional, advertising and subscription video-on-demand (SVOD), the latter generating revenues from subscriptions like Netflix.

The global SVOD market is expected to reach $27.6 billion revenues and 1.2 billion users in 2020. Thereafter, it is projected to grow at CAGR of 4.1% by 2024, resulting in $32.5 billion global revenues and 1.4 billion subscribers. (Figure 8) This represents a user penetration increase of 1.9 percentage points to 18.1% by 2024. As the penetration varies significantly around the globe, the industry is expected to grow at different rates across the regions. (Statista, 2020)

In global comparison, most revenue is generated in North America (UCAN) with the user penetration rate of 39.2% in the US and 20.1% in Canada in 2020. The region’s high revenue, which is projected to amount $13.1 billion in 2020, is also driven by the high average revenue per user (ARPU). The industry’s ARPU in the US and Canada is estimated to $98.19 and $51.6 in 2020, respectively. By 2024, the ARPU is projected to increase on average by CAGR 1.05% and UCAN user base by CAGR 1.28% to 144.6 million subscribers. (Statista, 2020) (Figure 9)

In terms of SVOD users, EMEA market is expected to remain the largest with 408.1 million projected users in 2024. This depicts a CAGR of 5.45% in the period between 2020 and 2024. (Figure 10) However, this growth will be partially offset by the steady weighted average revenue per user, which is forecast to increase only by 0.40% in nominal terms. This is mainly due to the fact that African users will increase by 59.3 million in the projected period while having the lowest ARPU in the region of $11.5 in 2024. (Statista, 2020)

LATAM is the smallest SVOD region in terms of users. The region will experience a CAGR of 3.85% by 2024, reaching 134.8 million subscribers. The weighted average revenue per user is projected to increase from $11.8 in 2020 to $12.96 in 2024. (Figure 11) With the least users and the lowest ARPU in 2024, LATAM will generate the least revenues among the regions. (Statista, 2020)

Ultimately, the fastest growing SVOD market will be APAC, indicating a CAGR of 5.89% to 261.2 million users in 2024. The weighted average revenue per user is currently estimated to $15.47 in 2020 and is forecasted to increase to $15.81 in 2024, implying nominal CAGR of 0.54%. The low nominal ARPU growth is a consequence of the significant projected increase of the South Asia users, where ARPU is forecasted to be only $6.64. (Statista, 2020) (Figure 12)
Cord Cutting Trend

Cord Cutting is a growing trend that refers to the practice of cancelling or forgoing a paid cable TV subscription in favor of an internet-based TV service such as Netflix. Traditional cable prices are a leading cause of cord cutting, with the average monthly cost of expanded basic cable services in the United States of $73.08 in 2018. *(Federal Communications Commission, 2018)* The growth of this trend could partially be inflicted by TV providers themselves, as many are prioritizing profit over revenues. *(eMarketer, 2019)* Other reasons for leaving the pay TV include low perceived value, negative experiences with bundles and hidden fees. *(Fitzgerald, 2019)* It is forecast that nearly 25% of US households will cut the cord by 2022. *(eMarketer, 2019) (Figure 13)*

Although cord cutting has been a US-centric trend, decreasing pay TV subscriptions in the UK and Germany among other countries confirms that it is spreading from the US to the Western European markets. *(Hunter, 2019)* In Q3 2019, 660.000 households dropped traditional TV in this region. *(Larsen, 2020)* However, traditional pay TV is still expanding in less mature markets with lower penetration rate such as Russia, which offsets the number of pay TV leavers. *(Hunter, 2019)* Similarly is happening in the APAC region, where the pay tv accounts are decreasing in developed countries and increasing in the emerging markets. *(Global Data, 2019) (Figure 14)* Meanwhile pay TV subscriber base in Latin America remains remarkably stable. *(Pensario, 2019)*

**Competition Overview**

The competition in video streaming on demand market is rapidly growing, which has become known as “Streaming Wars”. Although the industry has a relatively high barrier to entry, established content providers are entering the market with increased ease as technology advances. By mid-2020, four of the most valuable companies on the S&P500 Index will have launched streaming services in less than a year. In November 2019, Disney and Apple introduced their own streaming services, meanwhile AT&T’s HBO Max and Comcast’s Peacock are planned to launch in May 2020 and July 2020, respectively. *(Shaw, 2019)*

**Streaming Wars Overview**

**HBO Max**

HBO Max will launch with over 10,000 hours of premium content and it intends to invest additional $4 billion over the next three years. Its monthly subscription will be priced at $14.99, which places it among the most expensive streaming video on demand services. However, the company plans to add a less pricey option
with ads within the first year of its debut and it will eventually also incorporate live interactive and special event programming. Since it has the same price as HBO Now, the current 10 million subscribers will be immediately offered the new streaming service at no additional charge. Furthermore, AT&T customers on premium video, mobile and broadband service will also be offered bundles that include HBO Max. The company is therefore expecting 50 million domestic subscribers and altogether between 75 and 90 million subscribers by 2025. It also projects the annual incremental revenue, from subscriptions, content and ads to hit $5 billion that year. (WarnerMedia, 2019)

**Disney+**

Disney+ monthly subscription fee is priced at $6.99, about half the cost of Netflix. Although the streaming service was only recently launched, it has already surpassed 50 million subscribers in early April 2020 – up more than 22 million subscribers since it released the respective figure in Q1 2020 earnings. The significant increase in new subscribers is perhaps an assorted consequence of Disney+ international expansion and the Covid-19 lockdowns. Besides, about 6 million of total users come via the Verizon deal, which includes Disney+ for free with certain wireless plans and helps with marketing the service. (The Walt Disney Company, 2020) It is unclear what will be the Disney+ ultimate subscriber base, what will be its long term customer retention rate and whether the company’s initial five-year outlook to reach between 60 million to 90 million global subscribers is in fact too conservative. According to Reelgood, the comparative usage rate for Disney+ has significantly decreased in comparison to Netflix week-over-week since November 2019. (Reelgood, 2019) (Figure 15)

**Apple TV+**

Apple TV+ is the cheapest among its competition with the monthly subscription fee of $4.99, including family sharing. It currently offers only 16 original titles and its overall budget for the content has been increased to $6 billion, which is well below the annual investment of its rival Netflix. (Nicolau, Bradshaw, 2019) This perhaps will not be enough to steal subscribers from the streaming giant, who spend on average 2 hours a day on the service. (Clark, 2019) However, Ampere Analysis estimates that the Apple streaming services had 33.6 million customers as of the end of 2019, only 2 months after its launch. The vast majority is however getting the service under a one-year-free offer from Apple, if one buys an iPhone, iPad, Mac, or AppleTV. (Spangler, 2020)

**Hulu**
Hulu offers a range of subscriptions plans to its subscribers – from ad supported option priced at $5.99 per month to the $60.99 monthly streaming live-TV package, which includes over 50 channels on top of the regular on-demand library. (Hulu, 2020) (Figure 16) Since the streaming service is fully controlled and majority owned by Disney, the company offers the bundle of Hulu (ad-supported plan), Disney+ and ESPN+ at the monthly fee of $13, which saves a customer $5 on the streaming trio. (Hulu, 2020) Hulu has operated in the United States almost exclusively since 2007. As of end of 2019, the streaming service had 30.4 million subscribers, but only 3.2 million also paid for Hulu’s live TV channel bundle. (Littleton, 2020) The company expects Hulu to grow to between 40 million and 60 million subscribers by 2024. (Reuters, 2020)

**Amazon Prime Video**

Amazon Prime Video is a video streaming service available for all Amazon Prime members at no additional costs and has therefore officially over 150 million subscribers. (Del Rey, 2020) However, only 11% of Amazon Prime subscribers in the US stated Prime Video as a reason for their Amazon Prime subscription in 2018. (Statista, 2018) (Figure 17) Amazon Prime membership costs $12.99 per month or $119 per year and it comes with a lot of benefits such as a free two-day shipping. The subscription fee that only includes Amazon Prime Video is priced at $8.99. (Amazon, 2020) The majority of Amazon Prime customers come from the domestic market - there were an estimated 112 million US Amazon Prime subscribers in 2019. (Statista, 2020) Amazon reportedly spent $6.5 billion on original content in 2019 and offers over 17,000 titles compared to the approximately 5000 titles available on Netflix. (Haithman, 2020) However, its library consists of significantly less originals than Netflix and none of those shows have earned the popularity and critical acclaim bestowed on multiple Netflix series. (Rotten Tomatoes, 2020) The Prime catalogue can be extended even further by signing up to additional channels such as MGM or the Discovery channel, but only at the additional costs.

**Peacock**

Peacock will offer free and premium subscription tiers when it launches nationally. The free tier will make money solely from advertising and will include about 7,500 hours of programming. In comparison, the paid options will consist of over 15,000 hours of live and on-demand content and will be priced at $4.99 per month including ads, while no advertising tier will monthly cost $9.99. Comcast’s NBCUniversal estimates its streaming service will generate average revenue per user per month of $6 to $7, which is less than what the company currently generates from cable networks. This explains why the company plans to offer...
Peacock Premium for no additional charge to cable subscribers – it does not want Peacock to be a replacement, but rather a supplemental product. NBCUniversal expects to reach between 30 and 35 million Peacock subscribers by 2024. (Sherman, 2020)

**Overview**

For the clearer overview of all participants in Streaming Wars, I have included a comparison table with the most important dimensions such as monthly prices, number of (original) titles, live TV and ad-supported plan. *(Figure 18)* Assuming that the companies’ targets of subscribers are accurate, HBO Max is expected to have 50 million domestic and 25-40 international subscribers, while Disney+ will reach 20-30 million domestic and 40-60 million international users in 2024. Hulu and Peacock, which have no current plans to expand internationally, are expected to reach 40-60 million and 30-35 million subscribers, respectively.

Moreover, the number of Apple TV+ users will be mainly driven by its one-year-free offer and the projected sales of iPhone, which represented 80% of the total Apple’s devices sales in 2019. *(Apple, 2019)* Thus, it is forecasted to reach approximately 30 million subscribers in the domestic market and 68 million internationally by 2024. Lastly, Amazon Prime Video is projected to increase at the CAGR of 8.1% in the period between 2020 and 2024, which is the projected growth of the eCommerce industry. *(Statista, 2020)* This results in the 165 million domestic users and 50 million international subscribers. *(Figure 19)*

**Impact of Streaming Wars on Netflix**

Netflix appears not to be significantly impacted by the introduction of new streaming video on demand services. In the domestic market, its subscriber’s growth indeed decreased in 2019, but this is rather a consequence of the company’s high market penetration than Streaming Wars. Besides, the following figures suggest that Netflix is resistant to new competition.

Fundamentally, an average consumer in Netflix domestic market holds almost 4 video subscriptions, spending 50% more sessions in entertainment apps in 2019 than in 2017. *(App Annie, 2020)* According to Kantar, 56% of the new video on demand subscription in 2019 were second- or third-time customers. Only 30% were first-time subscribers of whom 31% chose Netflix as their first streaming experience. Netflix also came first regarding customer advocacy, a key for retention and growth. *(Kantar, 2020)* In fact, the company has the highest US customer retention rate in the streaming video on demand industry with two-thirds of the users still being subscribed 12 months after first signing up. *(Second
It has also the highest share of subscribers who also subscribe to other services, indicating that Netflix users see other services as a complement rather as a replacement. (Statista, 2020) (Figure 21)

Taking as a benchmark the SVOD ARPU in the United States, we estimate that the SVOD users in Netflix international markets will have on average 1 video subscription in 2024. The EMEA region, which has the highest average income and the highest penetration of streaming services, is expected to have also the highest number of subscriptions per user of 1.2. Despite the lower number of subscriptions per user in comparison to the United States, Streaming Wars will most likely not significantly impact Netflix in its international market. This is mainly due to the fact that the global SVOD industry is still rapidly growing and it is not as highly penetrated and saturated. Besides, the majority of subscribers of the Streaming Wars participants are projected to be domestic rather than international.

Company Analysis and Forecasting

Stock Performance

NFLX is the symbol under which Netflix trades its stocks. NFLX is traded in the NASDAQ Stock Market, the second biggest market stock exchange of the world. As of December 31, 2019, There were approximately 590 stockholders of record of Netflix’s common stock (Netflix 2019). Netflix launched its IPO in May 2002 with the emission of 5.5 million shares of common stock with a unit price of $15. Netflix’s experienced a downtrend until October 2002, hitting a low of $4.85. On February 12 2004, Netflix was trading at a price of $71.96, date in which the company decided to run a two-for-one stock split, closing at $37.30 per share. At that time, an investment of $990 (owning 66 shares) at the IPO time would have been worth approximately five thousands U.S. dollars (397% ROI – owning 132 shares). In 2015, after good quarterly results, Netflix stock decided for a further seven-for-one stock split, which the same day after the split the stock closed at $98.13 per share. During this event, the same investment of $990 at the IPO would have been worth $90.672.12 (9,058% ROI – owning 924 shares). As of 24 April 2020, with no further stock splits, the same investment made in 2002 would result in a total value of $392,690.8 (39,565.73% ROI – owning 924 shares). In the past years, Netflix has been outperforming both the market and direct competitors. (Investopedia, 2020) Netflix current PE ratio amounts to 86.01, which compared to Disney PE of 17.03 and Comcast PE 13.13, it shows a
significantly higher expectation of the market toward Netflix. (Yahoo Finance, 2020)

**COVID-19 Effect**

The COVID-19 is having a clear and direct impact on the media and entertainment industry since obligatory home confinements are radically altering consumer behaviors. Despite the sharp decline in overall consumer spending, some of the media and entertainment segments have experienced a surge in demand. (Leatherby, Gelles, 2020) (Figure 22) In OECD countries, the internet traffic has increased 60% during the pandemic, which has been partially also driven by the increased streaming. (OECD, 2020) According to Conviva, time spent streaming has grown 30% in the Americas (26% in the United States) and 20% globally. (Conviva, 2020)

Netflix net added a record 15.8 million paying subscribers in Q1 2020, of which 8 million directly imputable to the pandemic. In addition, it has experienced significant increase in viewing. (Netflix, 2020) Consistently with the company’s expectations and Statista, we believe that this surge is only temporary and that the COVID-19 has only helped the industry to accelerate the shift to streaming video, which has already been happening prior the pandemic at a slower pace. Almost 95% of Netflix subscribers who recently signed up to the streaming service will keep their subscription even beyond the COVID-19 era. (Morning Consult, 2020) However, we expect the growth of new memberships to decelerate to the pre-pandemic levels once the government measurements will be loosened. As the home confinement ends, we also expect the viewing to decline to the pre-pandemic levels. In fact, similar viewing patterns of Netflix were already observed during the Snowpocalypse in New York in 2016 and Hurricane Harvey in Huston in 2017. (The Economist, 2020) (Figure 23)

Another direct effect of the COVID-19 on the media and entertainment industry is the shutdown of film production, which has significantly disrupted the release schedule of Netflix originals. However, the company benefits from a large pipeline of content that was either complete and ready for launch or in post-production when production stopped. Netflix is also acquiring licenses in order to continue to be able to provide a variety of new titles throughout 2020 and 2021. (Netflix, 2020) Moreover, we expect that all the shifted investments since the beginning of 2020 will manifest during Q3 and Q4 of 2020.

For the analysis purposes, the total amount of lockdown subscribers were distributed to the regions using as weights the number of Netflix’s users of every region. 3.5 million (44% of the total) were added to the UCAN region, 2.3 million
(29% of the total) were added to the EMEA region, 1.5 million (19% of the total) were added to LATAM region and 670 thousand (8% of the total) were added to the APAC region. (Figure 24) However, it is assumed that the covid-19 subscribers boost is not long lasting and will not manifest further during the year. Furthermore, It is expected a base yearly retention rate of 95%, meaning that after one year 5% of the merely lockdown subscribers will drop the service. This growth anomaly is caused merely by an external short term factor, for which the effect is assumed to disappear as soon as the situation will return to the normal state. However, due to the high uncertainty of the Covid-19 lockdown effect, a sensitivity analysis was run to catch a range of retention rate scenarios (at from 50% till 99%).

Revenue Forecast

Netflix classifies its business regions in UCAN, EMEA, LATAM and APAC. Due to consistency and data availability, the same regional division is applied in the following analysis. Moreover, a prior paragraph is dedicated to determine the effect of Covid-19 to the region’s users.

UCAN

UCAN is the company’s largest market, contributing $10.05 billion or 50.6% of total revenues in 2019. As the Netflix penetration rate is estimated to over 50%, UCAN region is considered a mature market with less growth potential. To forecast the number of Netflix domestic subscribers and the corresponding ARPU, projected SVOD users, projected SVOD ARPU and expected number of cord-cutting households variables were used as independent variables to perform single and multiple regression models.

The projected SVOD users and the expected number of cord-cutting households in North America were used as the two independent variables in a multiple regression model to predict the number of Netflix subscribers in UCAN in the period between 2020 and 2024. For 2020, COVID-19 is expected to increase the Netflix annual user growth to 1.5%, reaching 74 million paying subscribers and a market penetration rate of 57%. The new subscriber base gained because of pandemic is assumed to have a compound retention rate of 95%. Beyond that, the domestic subscribers are projected to increase at a CAGR of 8.6% until 2024 and decelerate to a CAGR of 3.5% until 2030. Afterwards, the Netflix user growth is forecasted to be driven only by the region’s population growth of 0.53%. (Worldmeter, 2020) Moreover, it is important to remark that the regression lacks an adequate sample size, impacting negatively on the statistical significance of
the model. However, as it can set a coherent growth pattern, we proceeded using the regression results in the analysis. (Figure 25)

The projected SVOD ARPU in North America was used as the independent variable to perform a single regression model in order to predict Netflix real ARPU in UCAN until 2024. It is expected that Netflix ARPU will follow the industry price trends at a coefficient of 0.19. All the predicted ARPU values were adjusted by the future inflation rate of the region of 1.9%. (IMF, 2020) Netflix monthly ARPU is forecasted to reach the value of $13.86 by 2024. Afterwards, it is predicted to steadily grow under the sole contribute of the future expected inflation rate. The important remark for the single regression is the high R-squared (0.99) and low P-Value (< 0.05), conferring the model’s significance and high goodness of fit. (Figure 26)

In conclusion, Netflix revenue in the UCAN region is expected to increase to $16.3 billion in 2024, representing a CAGR of 10.2%. Thereafter, due to the Streaming War cessation, revenue growth is forecasted to have a spike of 12.2%, after which it is forecasted to slowly decrease and converge to a perpetual annual growth of 2.4% in 2030, a year in which the UCAN revenues will amount $22.2 billion. (Figure 27)

**EMEA**

Consisting of Europe, Middle East and Africa, EMEA represents the second largest Netflix market, generating the revenue of $5.5 billion in 2019. Owing to high differences among the sub-regions, the weighted average of the inflation rate and the population growth was used in the analysis with weights being sub-regions’ revenues and users, respectively. The projected SVOD users and the projected SVOD ARPU in EMEA were used as independent variables to predict number of Netflix subscribers and the respective ARPU in this region.

The Netflix subscriber base growth in EMEA is forecasted to have a spike in 2020 and afterwards stabilize at CAGR of 15.1% until 2024, reaching 100 million subscribers. The 2020 subscriber spike is a consequence of the COVID-19 effect and it is expected that the new subscriber base gained because of pandemic will have a compound retention rate of 95%. Beyond 2024, the Netflix subscriber growth is projected to decrease year-over-year, dropping to the region’s population growth of 1.45% in 2030. (Worldmeter, 2020) This decrease will be mainly a result of the saturation of European and Middle East market as well as the reduction in growth of internet penetration in Africa. (Figure 28) It is important to remark that the regression model results in a low P-Value (< 0.05), meaning that the model is statistically significant. Moreover, the model has a high R
squared (1), suggesting that it explains 72% of the number of Netflix subscribers variation. (Figure 29)

Netflix nominal ARPU in EMEA region is projected to remain stationary until 2024, at CAGR of -2.2%, changing accordingly to the SVOD industry with a coefficient of -2.3 and inflation adjusted by 3.5%. (IMF, 2020) After 2030, we expect that Netflix ARPU will grow only at the future expected inflation, reaching the nominal price of $12.41 in 2030. It is important to remark that the respective single regression did not result in a low P-Value (< 0.05), meaning that the model is not statistically significant. However, since it gives us a credible forecast and a high R squared (0.72), we decided to use the results for the forecasting purposes. (Figure 30)

In conclusion, Netflix revenue in EMEA region is projected to increase to $11.9 billion in 2024, CAGR of 16.5. Thereafter, due to the Streaming War cessation, revenue growth is forecasted to have a spike of 13.9%, after which it is forecasted to slowly decrease and converge to a perpetual annual growth of 5% in 2030, year in which the regions revenues will amount $19.1 billion. (Figure 31)

LATAM

LATAM is the third largest market of Netflix, contributing $2.8 billion or 14% of total revenues in 2019. With the penetration rate of 17% in 2019, the LATAM market has a good potential for the company’s expansion. To project the number of Netflix subscribers and the respective ARPU in LATAM, the forecasted region’s SVOD users and the forecasted SVOD ARPU were used as independent variables in the regression model. (Statista, 2020)

The Netflix subscriber base growth in LATAM is expected to have a spike in 2020, reaching 35.7 million subscribers and penetration rate of 27%. The 2020 subscriber spike is a consequence of the COVID-19 effect and it is expected that the new subscriber base gained because of pandemic will have a compound retention rate of 95%. In the period between 2021 and 2024, the number of subscribers is expected to grow at CAGR 8.5% to 53 million. Beyond that, the Netflix subscriber growth in LATAM is projected to decrease year-over-year, dropping to the region’s long-term population growth of 0.56% in 2030. (Worldometer, 2020) It is important to remark that the regression model used to set the forecast base for the years 2020 to 2024 resulted in a low P-Value (equal to the 5% threshold), making the model statistically significant. (Figure 32)

Netflix Nominal ARPU is projected to change correspondingly to the SVOD industry with the regression coefficient of 0.24 until 2024 and long-term inflation adjusted by 7.1%. The ARPU is estimated to increase to $9.11 in 2024 and
thereafter stabilize with the corresponding annual growth of the future expected yearly inflation rate (IMF, 2020). Like for the other regions, the ARPU forecast in LATAM was based on a single regression model, which in this case did not show an adequate P-Value. However, the results show a high R-squared (0.84), which is adequate to use the results for the forecasting purposes. (Figure 33)

In conclusion, Netflix revenue in LATAM region is projected to increase to $5.7 billion in 2024, representing a CAGR of 15.4%. Thereafter, due to the Streaming War cessation, revenue growth is forecasted to have a spike of 12.2%, after which it is forecasted to slowly decrease and converge to a perpetual annual growth of 8% in 2030, year in which the region’s revenue will amount $9.8 billion. (Figure 34)

APAC

APAC is the company’s smallest market, contributing $1.4 billion or 7.3% of total revenues in 2019. With the penetration rate of only 7% in 2019, it is also the least penetrated region. To forecast the number of Netflix subscribers and the respective ARPU in APAC, the projected region’s SVOD users and the projected SVOD ARPU were used as independent variables in the regression model.

The Netflix subscriber base growth in APAC is expected to have a spike in 2020, reaching almost 17 million subscribers and penetration rate of 9%. As in other regions, the 2020 subscriber spike is expected that the new subscriber base gained because of pandemic will have a compound retention rate of 95%.

Beyond that, the number of paying users is expected to increase at CAGR 15.8% until 2024 and at CAGR 3.7% in the period between 2024 and 2030. Thereafter, as the market becomes saturated and Netflix’s investment in content growth drops, the subscriber growth rate is expected to decline and converge to the APAC population growth of 0.49%. (Worldometer, 2020) It is important to remark that the regression model used to obtain the correlation coefficient exhibited a high R-squared (0.99) and a low P-Value (< 0.05), meaning that the model is statistically significant and manifests high goodness of fit. (Figure 35)

The Netflix nominal ARPU in APAC is projected to change correspondingly to the SVOD industry in the respective region with the regression coefficient of 0.49 until 2024 and long-term inflation adjusted by 3.3%. (IMF, 2020) In the period between 2020 to 2024, the ARPU is forecasted to increase at CAGR of 0.0%, amounting $9.5 in 2024. Thereafter, the Netflix ARPU is projected to converge to the future expected annual inflation rate of the region. It is important to remark that the respective single regression did not result in a low P-Value (< 0.05), meaning that the model is not statistically significant. However, since it gives us a
credible forecast and a high R squared (0.83), we decided to use the results for the forecasting purposes. (Figure 36)

In conclusion, Netflix revenue in APAC region is expected to increase to $3.4 billion in 2024, representing a CAGR of 18.4%. Thereafter, due to the Streaming War cessation, revenue growth is forecasted to have a spike of 13.8%, after which it is forecasted to slowly decrease and converge to a perpetual annual growth of 3.8% in 2030, year in which the region’s revenue will amount $5.1 billion. (Figure 37)

**Content Strategy**

Netflix builds its library with licensing and producing the content. It licenses 2nd run titles as well as Netflix originals, which are licensed exclusively to the company. Beginning in 2016, Netflix also self-produces original content, owning the underlying intellectual property of the titles. *(Netflix, 2020)*

The company had $11 billion of content assets in 2016, comprised from 87% ($9.5 Billion) of licensed and 13% ($1.4 billion) of produced assets. As of 31st December 2019, this ratio was much different. (Figure 38) The company has been proportionally reducing its licensing while increasing its production expenditure, resulting in 60% licensed ($14 billion) and 40% ($9.8 billion) of produced assets. (Figure 39) The launch of its production hubs in Albuquerque, New York City, Madrid and Surrey in 2019 suggests that Netflix will continue with the content strategy where the company owns the intellectual property for most titles.

This content strategy has several advantages as well as disadvantages. Producing content makes Netflix integrate its business vertically, giving the company more control on what and when to show content. Moreover, the vertical integration allows Netflix to save some costs due to the economies of scales and the economies of scope such as reducing a studio middle-man cost. However, the production requires cash expenditure upfront, prior to completion and release of titles on the Netflix streaming service, which deteriorates the free cash flow performance in the short term. *(Netflix, 2020)*

The increasing content production also significantly impacts on the company’s short-term and long-term return on invested capital (ROIC) as well as growth. The model suggests that increasing licensed content and decreasing proportionally produced content, while keeping the total content assets the same, impacts positively on the average ROIC, but negatively on the average long-term growth. This effect is mainly due to the decrease of the reinvestment rate caused...
by the reduced working capital, which was consequentially caused by the nature of licensed content.

For better understanding, a scenario analysis was performed with increasing and decreasing the average long term licensed versus produced content ratio. In the basic scenario, the average total content assets is composed by 47% of licensed content and 53% of produced content. If we increase the long term licensed content to 70% (produced content 30%), while keeping the total content constant, the average ROIC in the years between 2021 and 2030 would increase by 2.07% and the average long-term growth would drop by 1.85%. (Figure 40) According to our model, this scenario shows a exhibits a share price of $256.25, 36% lower than the basic scenario. The opposite effect is obtained by increasing produced content to an average long term (licensed content 30%), while keeping the total content constant. In this scenario, average ROIC would drop by 1.26%, average long term growth would increase by 0.89% and share price would reach the value of $469.91, 17% higher than the basic scenario. (Figure 41)

**Investment in Streaming Content Forecast**

Netflix has been significantly increasing its investment in streaming content over the past several years, spending $14.6 billion on content in 2019 alone. This represents a compound annual growth rate of 33% since 2015 and it makes Netflix the leader in the content investment. The company plans to further increase its expenditure to $17 billion in 2020 and as the competition intensifies the trend will likely keep moving upwards. (Spangler, 2020) Owing to the Covid-19 circumstances, the content production has been shut down and Netflix unexpectedly resulted in the positive free cash flow in Q1 2020. However, we assume that the delayed content investment expenditure will still take place over the course of 2020 when the governements’ restrictions will be loosened.

The investment in streaming content is expected to change accordingly to the total Netflix revenues, which reflects the size of the company and its leverage potential. To obtain the respective coefficient, a single regression model was constructed using the total company’s revenue as the independent variable. The model resulted in a coefficient of 0.79, a high R-squared (0.99) and a low P-Value (< 0.05), which suggests that the regression is statistically significant and exhibits a high goodness of fit.

The investment expenditure is projected to increase at a nominal compound annual growth rate of 12% in the period between 2020 and 2024 as the result of the Streaming Wars. In the period between 2024 and 2030, it is assumed that the
competition will abate, allowing the streaming giant to decrease the average CAGR of content cash investment to 0%. Beyond that, in compliance with long term world economy, investment in streaming content will stabilize with a long-term growth of 2.59%. (Figure 42 and 43)

**Assets and Liabilities**

The majority of Netflix’s assets and liabilities consists of content assets and content liabilities. In 2019, the total content assets amounted $24.5 billion or 82% of the total assets, while the total content liabilities amounted $7.7 billion or 29% of the total liabilities. The total cost of produced and available licensed titles are recorded as content assets, while the respective total unpaid cost of titles is recorded as a content liability. *(Netflix, 2020)* As a result of the increasing investment in produced content, the company’s ratio of content liabilities over content assets has been decreasing year-over-year, from 59% in 2016 to 32% in 2019.

The growth of licensed content assets is assumed to remain at the same level as in 2019 of 4%, whereas the produced content assets are forecasted to change correspondingly to the investment in streaming content with a regression coefficient of 1.08. Thus, the content assets are projected to grow at CAGR 10.44% in the period between 2020 and 2024, reaching $43.1 billion. Beyond that, the growth is expected to decelerate and converge to the long-term growth rate of 3.8%, reaching $48.4 billion in 2030. It is important to remark that the regression used to predict produced content until 2024 resulted in a low P-value (< 0.05) and high R-squared (0.98), making the model statistically significant and good fitting. *(Figure 44)*

As the content liabilities are directly linked to the licensed content assets, a single regression model was preformed using licensed content assets as the independent variable for the forecasting purposes. Although the regression resulted in a high P-Value (> 0.05), suggesting it is not statistically significant, we proceeded with the analysis as the model indicates a high goodness of fit (R-squared = 0.76) and it is coherent with our expectations. In conclusion, content liabilities are expected to grow at CAGR of 2.45% in the years 2020 to 2024, thereafter, decrease at CAGR of 2.68% in the years between 2024 and 2030. *(Figure 45)*

**Cost of Revenues**

The amortization of Netflix content assets composes on average 77% of the total cost of revenues. The content is amortized on an accelerated basis over the shorter of the title’s window of availability or estimated period of use or 10 years.
However, over 90% of a licensed or produced streaming content asset is expected to be amortized within four years after its month of first availability. (Netflix, 2020)

A valid way to forecast the amortization is to link it with the investment in streaming content, which represents the difference between the cost recognition and real cash expense. A moving average of the ratio amortization(t)/investment in streaming content (t-1) was used for the forecasting purposes. Thus, the amortization is projected to grow at CAGR of 16.49% in the years between 2020 and 2024 and at CAGR of 0.84% afterwards.

The remaining part of the cost of revenues such as payroll and related personnel expenses associated with the acquisition, licensing and production of streaming content is forecasted to change accordingly to the total revenue. Over the past years, it has been approximately 14% of the total revenues and have been forecasted correspondingly with a moving average. In conclusion, the total cost of revenues is expected to reach $26.1 billion in 2024, $29.9 in 2030 and grow steadily at CAGR of 3.7% thereafter. (Figure 46)

**Marketing, Technology and G&A Forecast**

The marketing expenses are predicted to change accordingly to the content assets. For this purpose, a coefficient of 0.12 was obtained using the total content assets as the independent variable in the regression model. The marketing expenses are thus expected to reach $5.0 billion by 2024 and grow at CAGR 2.06% until 2030, amounting $5.6 billion. (Figure 47)

The technology and G&A expenses are forecasted to increase as a percentage of the total revenue. They are expected to steadily grow at CAGR 10% until 2024 and 7% until 2030, reaching the value of $4.6 billion and $2.4 billion, respectively. (Figure 48 and 49)

**Operating Deferred Taxes**

The company’s operating deferred tax assets are mainly composed by the stock-based compensation and Federal and California tax R&D credits. Since a stock-based compensation is not necessarily recurring and depends arbitrarily on the board’s decisions, I considered Federal and California tax R&D credits as the main driver of the operating deferred taxes. For forecasting purposes, a single regression analysis was performed with the Technology and Development expenses as the independent variable. The regression results in a coefficient of 0.49, P-value lower than 5% and remarkable goodness of fit (R-squared 0.97).
Operating deferred taxes are expected to steadily grow at CAGR 9.06% until 2030, reaching the value of $2.1 billion.

Capital Structure

Netflix has been mainly financing its content investment with a long-term debt, which grew at CAGR of 64% since 2016 to $14.7 billion in 2019. This also resulted in a higher Net Debt to Market Capitalization ratio, which increased from 3.9% in 2016 to 7.4% in 2019. In April 2020, the company announced to raise additional $1 billion through junk bonds to fund operations and potential acquisitions. *(Marketplace, 2020)*

However, Netflix is not expected to experience a financial distress or insolvency. As of 2019, Netflix exhibited interest coverage ratio, quick ratio and current ratio resulted to be in line with the competition. Netflix’s coverage ratio resulted 3.8x (The Walt Disney CO, 5.7x – Comcast Corp 4.5x), quick ratio amounted 0.7x (The Walt Disney CO, 0.89x – Comcast Corp 0.87x) and current ratio 0.9 (The Walt Disney CO, 0.94x – Comcast Corp 0.87x). However, it is important to remark that Netflix’s current ratio deteriorated from a 1.5 in 2018 to a 0.9 in 2019, but this trend change is mainly due to a new accounting method, in accordance with ASU 2019-2, which translated all the current content assets into the non-current content assets. *(Gurufocus, 2020)*

Profitability

As Netflix heavily invests in capital to sustain its business model, we consider the return on invested capital (ROIC) as the most meaningful profitability measure. In the period between 2017 and 2019, the company’s ROIC averaged 19.08%. In 2020, Netflix is expected to reach ROIC of 19.79% due to the COVID-19 effect. However, the company’s ROIC is predicted to decrease to an average of 11% in the period between 2021 and 2024. This will be mainly a result of the Netflix significant investment into content as the competition intensifies. Beyond that, due to the Netflix investment growth slowdown while retaining of the subscriber base Netflix gained in the previous years, Netflix's ROIC is expected to increase reaching the value of 30.4% in 2030. In order to create value, ROIC needs to be above WACC. Over the years, Netflix ROIC is projected to be higher than WACC, excluding in year 2024, the expected peak of the streaming wars. *(Figure 51)*

Intrinsic Valuation

Free Cash Flow
Over the past 6 years, Netflix annual free cash flow has been negative, reaching a record negative $31 billion in 2019. The free cash flow is forecasted to remain negative until 2024, when the company will presumably reduce the growth of its aggressive investment in streaming content. Free Cash Flow is predicted to be on average negative $933 million per year in the period between 2020 and 2024 and it is thereafter expected to grow at CAGR 18% until 2030. Beyond that, the free cash flow will increase at the global nominal GDP growth of 4.14%. (IMF, 2020) (Figure 52)

**ROIC, Reinvestment Rate and Growth**

Netflix’s Reinvestment rate is forecasted on average 135% in the years between 2020 and 2024 and it is thereafter estimated to drop converging to the value of 13.6% in 2030. The described pattern is a consequence of Netflix’s substantial reduction of investment in streaming content after the streaming war. Netflix’s nominal perpetual growth rate is expected to be 4.14%, which was derived from its direct relation with the company’s ROIC and reinvestment rate.

**Weighted Average Cost of Capital (WACC)**

The cost of equity of 7.21% was computed using the Capital Asset Pricing Model. To obtain the beta, the weekly returns of Netflix and S&P500 in the period between 10/04/2017 and 02/Mar/2020 were used in a single regression model. The regression resulted in a coefficient of 1.37, a confidence interval of [-0.09; +0.09] and a P-Value (3.8*10^-10), suggesting that the model is statistically significant. If the beta coefficient was calculated with the returns as of today, the value would be 0.91. However, the rolling beta indicated that in the last 5 weeks the correlation of Netflix’s returns against the correspondent S&P500 returns dropped drastically due to the Covid-19 disruption. (Figure 53) Since we believe that the current crisis is a short-term anomaly, we considered the returns of the last 5 weeks as outliers and we omitted them from the beta computation. The remaining input for the CAPM model, risk free rate and market risk premium, amount 0.71% and 5.39%, respectively. For the risk-free rate, the interest rate of 10 year T-bill as of 18th May 2020 was used, while the market risk premium was obtained from the analysis made by Damodaran on the implied equity risk premium as of 1st May 2020. (Damodaran online, 2020) (Figure 54)

Cost of debt (rd) of 2.56% was computed from the average cost of debt of the three recently issued Netflix’s bonds with a maturity date ranging between 15th May 2029 and 15th June 2030. The calculations were derived from the yield to maturity of the correspondent bonds, probability of default and loss given default. (Figure 55)
WACC of 7.21% was computed based on the above cost of equity, cost of debt and target debt to equity ratio of 5.16%, which is the current (as of Q1 2020) Netflix’s debt to equity ratio and it is assumed to remain stable in the long term.

**Relative Valuation**

To perform a relative valuation, we chose as Netflix peers the companies with similar business models, sizes and technology advancements - Disney, Amazon, Comcast Corp and Charter Communication. The corresponding market capitalizations, revenues, profit margins, operating margins, returns on assets and returns on equity were compared to Netflix analogous values. However, the comparison indicates that Netflix has no perfect peers since none of the companies operates solely in the SVOD market. Due to the lack of specific data of their SVOD segments, the following results of the relative valuation are merely indicative.

EV/EBITDA, Price/Sales and Price/Earnings multiples were collected, and the median was computed as it allows to discard the effect of outliers. The results of the relative valuation suggest a high variance of the hypothetical Netflix’s share price depending on the multiple used. The EV/EBITDA multiple returns a Netflix share price of $309.55, Price/Sales multiple a price of $115.53 and Price/Earnings multiple a price of $16.05. (Figure 56 and 57)

**Scenario Analysis**

**Covid-19 scenarios**

The current pandemic the whole world is facing is currently the most discussed topic since Covid-19 is disrupting almost all markets in a negative way. Most of the media and entertainment industry has not faced detrimental consequences and Netflix is one of them. Due to the lockdown, the streaming giant has experienced subscriber growth, which has been quantified at 8 million of net addition during the crisis period (Netflix 2020 Q1). Since the variability of the lockdown benefits is intrinsically very high, it is necessary to construct a scenario analysis to visualize the different outcomes that the pandemic may have on Netflix’s share price. (Figure 58)

In the original model, the yearly retention rate of the “lockdown subscribers” is set as 95%, meaning that after one year 5% of them will not renovate the subscription.

In the optimistic scenario, it is assumed that the retention rate of the “lockdown subscribers” is 99%. The optimistic scenario would improve Netflix’s share price
by 3.06%, reaching the value of $415. Furthermore, average ROIC for the years between 2021 and 2030 would improve by reach the value of 0.44%.

In the pessimistic scenario, it is assumed that the retention rate of the “lockdown subscrib
ers” is set as 50%. The pessimistic scenario would decrease Netflix’s share price by 5.26%, reaching the value of $381.65. Furthermore, average ROIC in the years between 2021 and 2030 would reach the value of 17.33%, 1.3% more than the basic scenario.

Sensitivity Analysis

To fully picture the variance Netflix’s stock price may have, a sensitivity analysis was made using 2 variables: Weighted Average Cost of Capital and Growth. In the model, WACC ranges between 6% and 8.0% while growth ranges between 2% and 4%. In the worst case, where WACC is the highest (8%) and growth is the lowest (2%), the share price is predicted to drop to a low $261.53. In the best case, where WACC is the lowest (6%) and growth is the highest (4%), the share price is predicted to reach a high of $1,335.13. The sensitivity analysis shows the intrinsic high variability provided by WACC and Growth. (Figure 59)

Final Recommendation

Taking into account the valuation model presented, we recommend to short sell Netflix (NFLX). As of December 2020, our valuation model predicts a value of $205.21 billion for Netflix’s market capitalization. Taking into account the 452 million outstanding share, we conclude that Netflix’s share price amounts to $402.85, 11% lower compared to Netflix share price as of 20/05/2020 ($454.01). (Figure 60)

Although we have a positive outlook on Netflix’s business model and its future growth despite the increasing competition, Netflix’s stock price is currently over-valued according to our model. This is a consequence of the Covid-19 situation, which significantly impacted Netflix’s subscribers growth and investors’ expectations, as well as the performance of the SVoD industry. However, this effect is expected to be short-term rather than long term.
## Financial Statements

### Income Statement

<table>
<thead>
<tr>
<th>Year</th>
<th>Deferred Revenue</th>
<th>Total Debt</th>
<th>Non Operating</th>
<th>Interest Expense</th>
<th>Non Core Business</th>
<th>Operating Income</th>
<th>Debit and Writeoffs</th>
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### Balance Sheet

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<tr>
<th>Year</th>
<th>Cash and Equivalents</th>
<th>Property, Plant, and Equipment</th>
<th>Accounts Payable</th>
<th>Deferred Revenue</th>
<th>Total Core Assets</th>
<th>Other Current Liabilities</th>
<th>Total Core Liabilities</th>
<th>Total Common Share Equity</th>
<th>Short Term Debt</th>
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### Notes to the Financial Statements

- **Deferred Revenue** is calculated as a percentage of Total Core Assets and Total Core Liabilities.
- **Accounts Payable** is determined by...
# Cash Flow Statement

**Operating**

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</tbody>
</table>
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Report Recommendations

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Buy</strong></td>
<td>Expected total return (including expected capital gains and expected dividend yield) of more than 10% over a 12-month period.</td>
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<tr>
<td><strong>Hold</strong></td>
<td>Expected total return (including expected capital gains and expected dividend yield) between 0% and 10% over a 12-month period.</td>
</tr>
<tr>
<td><strong>Sell</strong></td>
<td>Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.</td>
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