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Abstract

In this report, we elaborate an equity valuation of Netflix. The company is facing a very challenging scenario, with new competition threatening its worldwide leading position. Furthermore, this increasing competition is promoting a content war, which is increasing tremendously the cost of streaming content. As a response to this trend, Netflix shifted its strategy to original content production. Through the analysis conducted in this report, Netflix will suffer the impact of the new competition, while being compensated by its international expansion. Our target price is \$326.86.

Keywords

Netflix, Competition, Internationalization, Content

NETFLIX

MEDIA ENTERTAINMENT SERVICES

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COMPANY REPORT

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The War for the Streaming Crown

From a local distributor to a global producer

- SVoD is the most promising sector in the Entertainment Industry. With a 40% revenues' CAGR in the last 3 years, the "streaming war" is becoming fiercer with the treat of new powerful competitors.
- In the US, Netflix is expected to add 3 million net paid subscribers in 2019, which is half of what had been registered in 2018. Therefore, Netflix's US penetration rate is reaching its peak.
- The International Streaming Segment is emerging as Netflix's main driver of revenues (54% of Netflix's revenues in first three quarters of 2019), as a result of the internationalization strategy of the Los Gatos Company.
- As a result of the recent "content war", Netflix has invested \$13 billion in content, in 2018. The company is expected to invest more in the following years, in order to face its competition.
- The possibility of extending the lower-priced plans tested in selected countries and the possible adoption of an anti-password sharing system can bring added value to the company.
- Based on the DCF model, and the possible scenarios, our target price is 326.86€, that represents 1% return when compared with the year-end price

Company description

Founded by Reed Hasting and Marc Randolph in 1997, Netflix is the leader of the SVoD industry. Its service allows users to watch unlimited movies and TV shows without ads and for a low-priced fee. Netflix operates in more than 190 countries, reaching more than 160 million subscribers.

Recommendation: **HOLD**

Price Target FY20: **326.86 €**

Price (as of 31-dez-19) **\$323.57**

Reuters: NFLX.OQ, Bloomberg: NFLX US

52-week range (\$) 252.28-385.99

Market Cap (\$m) 141804.970

Outstanding Shares (m) 438.251

Source: Bloomberg



Source: Bloomberg

(Values in \$ millions)	2018	2019E	2020F
Revenues	15794	20128	23441
Revenues Growth	35%	27%	16%
Paid Subscribers	142	168	188
Paid Subscribers Growth	25%	18%	12%
Operating Income	1226	3012	4329
Operating Margin	10%	15%	18%
ROIC	22%	20%	22%
EPS	\$2.77	\$4.58	\$7.00

Source: Company Data; Analysts' Estimates

THIS REPORT WAS PREPARED EXCLUSIVELY FOR ACADEMIC PURPOSES BY ANDRÉ MOURA AND FREDERICO PONTES, MASTER IN FINANCE STUDENTS 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

In 1997, Marc Randolph and Reed Hastings founded Netflix, a DVD rental American company. Two years after, Netflix changed its business model by implementing an online subscription service through its website. In other words, by paying a low monthly fee, subscribers were able to rent as much titles as they wanted, via Internet, and then receive them at home, via mail. After the success of this methodology, supported by subscribers' choice predictions and the increase of DVD player sales, Netflix initiated an initial public offering on May 23, 2002, selling 5.5 million shares of common stock at \$15.00 per share¹. In 2003, with a subscription increase of 73.5%, Netflix has registered for the first time a positive net income (\$6.512 million).



Exhibit 1: Netflix World's Availability
 Source: Netflix Center

2010	2011	2012	2013
Canada	Latin America Central America Caribbean	United Kingdom Ireland Denmark Finland Norway Sweden	Netherlands
2014	2015	2016	
Austria Belgium France Germany Luxembourg Switzerland India	Australia New Zealand Japan Italy Portugal Spain	Worldwide except for: Crimea Syria Mainland China North Korea	

Exhibit 2: Netflix International Expansion Evolution
 Source: Company Data

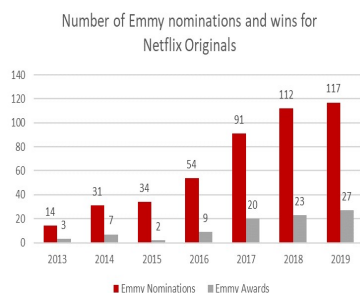


Exhibit 3: Emmy nominations and wins for Netflix
 Source: Academy of Television Arts & Science; Statista

In 2007, Netflix introduced the limited streaming service (one hour of streaming per dollar spent per month), in which subscribers, were able to choose an available title in the website and stream it directly through the internet. 2010 represents an important year for the company, since it is the year in which the unlimited only streaming plan, as we know it today, was launched in the US and then expanded internationally to Canada². Then, Netflix's streaming plan was launched in Latin America (2011), UK, Ireland and Scandinavia (2012) and in the Netherlands (2013). Until 2013, Netflix content was exclusively composed by licensed second-run movies and TV series. Nonetheless, in the same year, with the release of *House of Cards*, Netflix started licensing (produced by others) and producing original content that has been recognized with multiple awards during last years. In 2014, Netflix's expansion continued with its launch in some Western European countries and in India. The last time Netflix expanded outside borders was in 2016, by becoming available worldwide excluding Mainland China and regions subject to U.S. sanctions.

Nowadays, with a market capitalization of \$141.804 billion, Netflix is the world's leading subscription video on demand service, including in its library more than 1000 original titles across a wide variety of languages and genres and registering more than 160 million paid memberships, in more than 190 countries.

Business Model and Segments

¹ Source: "If You Had Purchased \$100 of Netflix in 2009 (NFLX)" Investopedia, June 2019

² Source: "How Netflix Expanded to 190 Countries in 7 Years" Harvard Business Review, October 2018

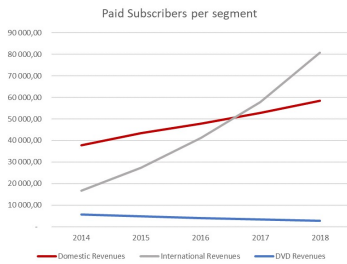


Exhibit 4: Netflix Segments' Paid Subscribers per year
 Source: Company Data

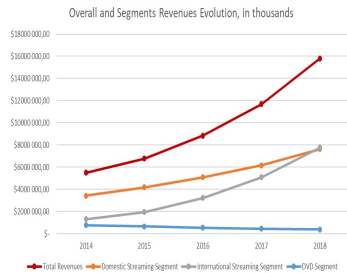


Exhibit 5: Netflix Overall and Segments Revenues, per year
 Source: Company Data

Netflix Streaming Plans			
Features	Basic	Standard	Premium
Monthly price	\$8,99	\$12,99	\$15,99
HD available	No	Yes	Yes
Ultra HD available	No	No	Yes
Simultaneous screens	1	2	4

Exhibit 6: Netflix Streaming Plans, US prices as of November 2019
 Source: Netflix Website

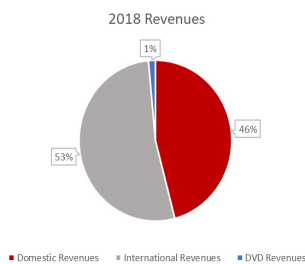


Exhibit 7: Netflix 2018 Segments' Weights, by Revenues
 Source: Company Data

The unlimited streaming plan (globally) and the online DVD rent service (nationally) are the two services that Netflix provides to its customers, resulting in three business segments: the Domestic Streaming Segment, the International Streaming Segment and the Domestic DVD Segment. The three business segments' revenues are based on the monthly subscriptions fees that its clients pay. While the first two are the major service of the company, with more than \$14.4 billion in revenues, and more than 139 million paid subscribers in 2018, the DVD Segment has become a secondary service of the company, with 2.7 million paid subscribers, but it is still profitable (\$212 million of contribution profit in 2018)³.

Regarding both streaming segments, customers can choose between three different streaming plans: the basic, the standard and the premium (the standard one is the most sold of them). The (ultra) HD availability, the price and the number of screens on which members can watch Netflix at the same time are the main differences between the three mentioned possible packages (Exhibit 7). Regardless of the chosen package, by paying the respective fee, each member can watch and download content unlimitedly in any internet connected device (mobile phone, tablet, TV, etc)⁴.

In 2018, the Domestic Streaming Segment represented more than \$7 billion in revenues and 58 million paid subscribers. During the first three quarters of 2019, Netflix recorded a net increase of 2.134 million domestic streaming paid subscribers, which is below the previous year result (4.147 million net adds). This result indicates that this segment's growth is slowing down, which we can confirm by comparing its CAGR between 2014 and 2018 (11.60%) with the CAGR of the three quarters of 2019 (4.89%).

The International Streaming Segment achieved almost \$7.8 billion in revenues and 17 million paid subscriptions in 2018. This segment has become the main focus of Netflix, because it represents 52.6% of total revenues and there is positive growth perspective, since world population is increasing, broadband communication is being improved in developing countries and Netflix market penetration is still in a growing stage in most countries (international segment's penetration rate has increased from 11.1% in 2017, to 14.7% in 2018).

Considering the DVD rental service, by paying a monthly fee, clients can rent, via internet, a film or TV series and, in the next business day, the disc arrives at their homes, via mail. Each member can choose between the standard plan and the premium plan. The only difference between these two packages is the number of

³ Source: Netflix 2018 Annual Report

⁴ Source: Netflix Website

Netflix DVD Plans		
Features	Standard	Premium
Monthly price	\$7,99	\$11,99
Discs per time	1	2

Exhibit 8: Netflix DVD Plans, US Prices, as of November 2019
 Source: Company Data

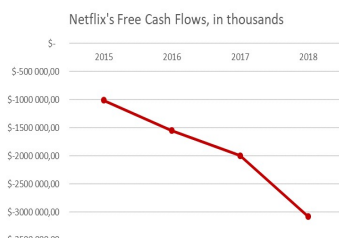


Exhibit 9: Netflix's Free Cash Flows, 2015-2018
 Source: Company Data



Exhibit 10: Netflix Long-term debt per Year
 Source: Company Data

Debt to Equity Ratio			
Comparables	2016	2017	2018
The Walt Disney (DIS US)	0,12	0,16	0,13
CBS (CBS US)	0,34	0,43	0,62
Discovery Inc. (DISCA US)	0,48	1,18	0,97
Viacom Inc. (VIAB US)	0,87	0,81	0,86
Vivendi (VIV FP)	0,17	0,16	0,16
Comcast (CMCSA US)	0,37	0,34	0,72
Netflix(NFLX US Equity)	0,06	0,08	0,09

Exhibit 11: Competitors vs Netflix D/E Ratio, 2016-2018
 Source: Bloomberg

Ratios	2014	2015	2016	2017	2018
Net Debt-to-Equity	-0,01	0,01	0,04	0,04	0,06
Current Ratio	3,23	3,41	2,09	2,60	2,52
Cash Ratio	2,04	2,44	1,54	2,18	2,11
Debt-to-Assets	0,13	0,23	0,25	0,34	0,40
Debt Coverage Ratio	0,45	0,13	0,11	0,13	0,15
Interest Coverage Ratio	8,02	2,30	2,53	3,52	3,82

Exhibit 12: Netflix capital structure, liquidity and coverage ratios, 2016-2018
 Source: Bloomberg

discs that the client can rent out-at-a-time. This segment has been decreasing its ability to generate revenues, due to the continuous reduction of the number of paid subscribers. From 2014 to 2018, the segment has almost lost 3 million paid subscribers, resulting in a loss of approximately \$400 million. Despite the loss of materiality of this smallest segment (1% of 2019 Netflix forecasted revenues), Netflix will still count on it while it is still profitable⁵.

Capital Structure

Although Netflix forecasts an improvement of the FCF on year over year basis from 2020 on (as operating margin and profits grow), the company consistently records negative FCF year after year (accounting \$-3million in 2018) and it anticipates negative FCF “for many years”⁶. Due to this fact, to a low 0.06 net-debt-to-market-capitalization ratio, to tax benefits and to the current low interest rates, the company prefers to fund its aggressive production content strategy (which requires high upfront costs) with debt rather than with equity.

From 2014 to December 2019, Netflix has increased its long-term debt in more than \$11 billion in long-term debt, resulting in a debt to market capitalization ratio of 0.08. In addition, the entry of new competitors into the market constitute a risk to Netflix's debt repayment. Nevertheless, Netflix market capitalization has been increasing during last years, reaching \$116.7 billion in 2018, up from \$20.5 billion in 2014. Because of that, the increase of the long-term debt has not changed Netflix's capital structure that much, with its D/E ratio increasing only from 6% to 9% from 2016 to 2018. By comparing it with competitors' capital structure ratios, Netflix's ratio is actually the lowest, regardless of the recent debt issuances⁷.

Furthermore, regarding the cash and the current liquidity ratios, one can verify that they have increased, respectively, from 1,54 to 2,11 and from 2.09 to 2.52, from 2016 to 2018. This means that in the short-run Netflix is more prepared to cover its own obligations. Concerning the long-term obligations, since the coverage ratios based on free cash flows are inconclusive because FCF are negatives, operating-income-based coverage ratios based on operating income are used. From 2014 to 2016, with the start of the original content production (requires high financial leverage), the long-term debt increased 280%, leading to a decrease of the interest coverage ratio and of the debt coverage ratio from 8.02 to 2.53 and from 0.45 to 0.11, respectively. From 2016 to 2018, the debt coverage ratio has increased from 0.11 to 0.15, while the interest coverage ratio increased from 2.53 to 3.82. Contrarily to what happened from 2014 to 2016, the

⁵ Source: Netflix 2018 Annual Report

⁶ Source: Netflix Investors Website

⁷ Source: Competitors Annual Reports

ability to generate enough operating income to cover the interest expenses and the debt has been increasing from 2016 on, which is a positive signal for the future of the company.

Stock Performance

Netflix stock does not include preferred stock and the holder of each common share is entitled to a vote per share on all matters to be voted. In its history, Netflix has issued a 2-for-1 stock split (in 2004) and a 7-for-1 stock split (in 2015) and it has never paid dividends and has no reported intention to do it⁸. From 2014 to the end of 2017, the stock price followed a continuous upward movement. From 2018 on, the stock price per share has become much more volatile: it reached its highest value of \$423.26 on June 2018, but it also hit the \$231.23 at the end of the same year. In 2019, stock price has been following the same behaviour. The most important variation occurred in July with a drop of almost \$60 (-13%) in five days, after Netflix failing its second quarter forecasting. Another drop (from \$280.26 to \$254.59, in two days) happened in September, when Reed Hastings admitted he was expecting tough competition from November on⁹. Netflix closed the year with 438.251 million shares outstanding, traded at \$323.57.

	2015	2016	2017	2018
EPS	0,29	0,43	1,29	2,78
P/E	409,68	287,27	151,82	93,35

Exhibit 13: EPS and P/E Ratio
Source: Company Data

Company	Trailing P/E	Forward P/E Ratio
Walt Disney	24,80	24,24
CBS	5,27	7,68
Discovery Inc.	9,66	7,31
Viacom Inc.	6,00	6,33
Vivendi	65,92	
Comcast	18,30	14,71
Netflix	114,34	53,35

Exhibit 14: Comparables' EPS and P/E Ratio
Source: Bloomberg Data



Exhibit 15: Cumulative Returns Netflix vs S&P 500, 09/2016-09/2019
Source: Bloomberg Data

In the last four years, Netflix's EPS have been growing due to a higher number of paid subscribers (and consequent higher revenues) and to a better cost efficiency (operating margin growth). The P/E ratio has been decreasing from 2015 on, however, it is still higher than its comparables' P/E ratio. This goes in accordance with the context that Netflix is currently facing because it shows that Netflix's investors believe that the company has more potential to grow than its comparables (especially due to the international expansion) but the P/E ratio reduction reveals investors' uncertainty regarding Netflix's performance within a challenging market with the new competitors.

When comparing Netflix with the S&P 500 Index, regarding their cumulative returns, it is visible that Netflix outperformed the market in the last 3 years. This can be explained by the difference between the growth of Netflix and the average growth of the 500 large companies listed on stock exchanges in the United States. Netflix has been growing at a higher level than the average of those companies (which are more stable, at a higher maturity stage), attracting more investors that improve the stock performance.

The Sector

⁸ Source: Bloomberg

⁹ Source: Annie Palmer "Netflix shares fall after analyst predicts slowdown in mobile app downloads and CEO admits 'tough competition' from Apple, Disney coming" CNBC, Sept.2019

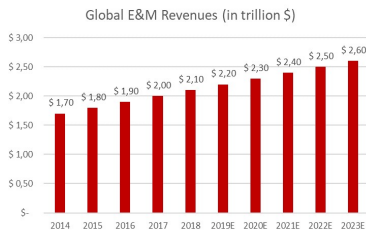


Exhibit 16: Global Entertainment and Media Revenues (in trillion \$)
Source: Global Entertainment and Media Outlook, 2019-2023, PwC

The Media and Entertainment Sector

The Entertainment and Media Industry, which includes any kind of service that offers customers a way of spending their free time, has increased its revenues from \$1.7 trillion in 2014 to \$2.1 trillion, in 2018. A significant part of these revenues came from digital consumption, as this industry continues under a constant revolution, due to the continuous improvement of technology. For instance, in 2014, 40.7% of the industry revenues came from digital services, while in 2018, that percentage has reached the 53.1%¹⁰. This evidence shows how the entertainment consumer habits are changing, with the digital services replacing the traditional ones. This trend will continue since it is estimated that, in 2023, 61.6% of the sector revenues will come from digital services (increase of 8.5 p.p from 2018). The 2023 entertainment revenues are expected to be valued in \$2.6 trillion, which represents a CAGR of 4.3% between 2019-2023.

VoD Market Segments

2018 VoD Revenues per type of service

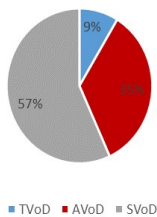


Exhibit 17: VoD Revenues by Type of Service, 2018
Source: Digital TV Research

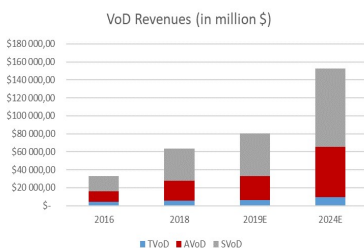


Exhibit 18: Evolution of VoD revenues by type of service
Source: Digital TV Research

The Video on Demand (VoD), also known as Over-the-Top Video (OTC), includes services that distribute premium video content (on demand) over the Internet. It comprises three types of services: the Transactional Video on Demand (TVoD), the Advertising Video on Demand (AVoD) and the Subscription Video on Demand (SVoD). Overall, the VoD Market revenues have grown from \$33.1 billion (in 2016) to \$63.4 billion (in 2018), registering a CAGR of 38%. In the future, it is expected to continue growing by achieving \$152.8 billion in 2024 (21% CAGR from 2016-2024).

The TVoD is a Pay-per-View service that does not charge for signing up, but only who pays specifically for a piece of premium video content will be allowed to access it. In 2018, the TVoD market segment has generated \$5.5 billion in revenues, growing at a 15% CAGR from 2016 (\$4.1 billion in 2016). In the future, it is expected to keep expanding its revenues (at a 11% CAGR from 2016-2024), reaching \$9.4 billion in revenues. iTunes, Google Play, YouTube and Amazon Video are the main platforms of this segment.

The AVoD is a service in which users log in and stream video content, in exchange for spending time watching advertisement. In 2018, AVoD has generated \$21.8 billion in revenues, growing at a 36% CAGR from 2016 (\$11.8 billion in 2016). In 2024, AVoD's revenues are expected to reach the \$56.3 billion, by growing at a 22% CAGR from 2016. Hulu, YouTube, Tubi and Pluto TV are the principal players in this market.

¹⁰ PwC Global Entertainment and Media Outlook

2024 Forecasted VoD Revenues Weights

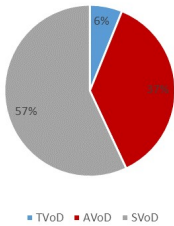


Exhibit 19: 2024 Forecasted VoD Revenues Weight
Source: Digital TV Research

Finally, SVoD is a type of service that gives the customer the right to watch content for unlimited time in a month, in exchange for a monthly fee. Netflix operates precisely in this market, which is growing in terms of revenues and users because people appreciate the fact that they can choose what to watch at any moment, without ads. SVoD revenues have climbed from \$17.2 billion in 2016 to \$36.0 billion in 2018¹¹. In the future, SVoD will continue to be the main VoD's source of revenues with \$152.8 billion in 2024 (22% CAGR from 2016). Netflix major competition includes Disney+, Amazon Prime Video, Hulu, Apple TV+ and HBO (Max).

The Cord-Cutting Phenomenon

One reason for the worldwide popularity of the Subscription Video on Demand services is the current cord-cutting that we are observing. Cord-Cutting refers to the practice of cancelling a pay television subscription or landline phone connection in favour of an alternative Internet-based or wireless service.

Customers pay a lower monthly fee for SVoD platforms than for the traditional linear and cable TV. In addition, in the latter case, users are bombarded with advertising and cannot watch specific content at any given moment. Therefore, it is very appealing to consumers to choose these new services which are revolutionizing the entertainment sector.

In fact, by observing the penetration rate of Pay TV in the last years, a clear down trend is observable in more developed countries while the opposite is perceived in developing countries. For instance, in the US, the penetration rate of pay TV was 86%, in 2010, decreasing to approximately 81% in 2018 (Euromonitor Passport), which is in line with what was mentioned before. On the other hand, during 2010, Africa and Middle East regions have registered a TV penetration rate of 32% while, in 2018, a penetration rate of 38% of households has been registered. The quality of broadband connection is one important factor that explains this difference between the penetration rate of TV in developed countries and in the developing ones, since SVoD services are completely dependent on the broadband connection. For instance, not only have global broadband homes increased in number (from 732 million in 2014 to 1072 million in 2018) but increased in penetration rate (growing from 36% in 2014 to 50% in 2018)¹². Another important reason for that is the natural delay of the arrival of new forms of technology at developing countries. Finally, the rising usage of technological gadgets, such as smartphones and tablets, boosts the dissemination of SVoD services (they provide an easy access to content).

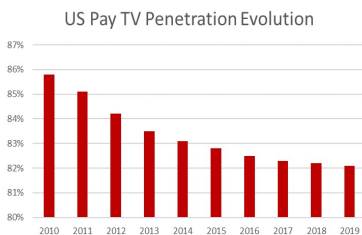


Exhibit 20: US Pay TV Penetration Rate, 2010-2019
Source: Passport – Euromonitor International

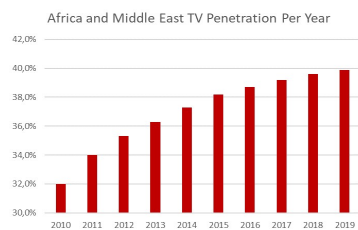


Exhibit 21: Africa and Middle East Pay TV Penetration Rate, 2010-2019
Source: Passport – Euromonitor International

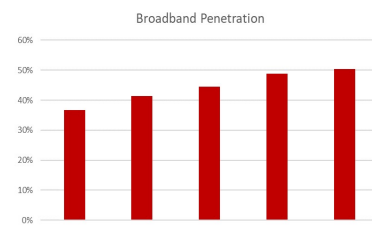
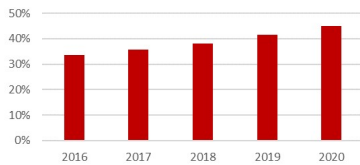
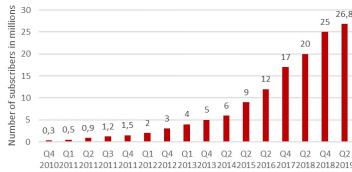


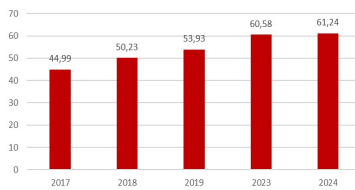
Exhibit 22: Global Broadband Penetration, 2014-2018
Source: Passport – Euromonitor International

¹¹ Source: Digital TV Research OTT and Video Forecasts

¹² Source: Passport Euromonitor International

Global Smartphone Penetration as
 percentage of population

Exhibit 23: Global Smartphone Penetration Rate, 2016 - 2020
 Source: Statista

 Number of Hulu's paying subscribers in the US,
 from Q4 2010 to Q2 2019

Exhibit 24: Number of Hulu's paying subscribers in the US, Q4 2010 – Q2 2019
 Source: Statista

 Number of Amazon Video subscribers in the
 United States from 2017 to 2024

Exhibit 25: Number of Amazon Video subscribers in the US from 2017 to 2024
 Source: Statista

Besides having a penetration rate of 38% among world population, smartphones have a relevant progression margin, reaching an estimated penetration rate of 45% in 2020¹³.

Entertainment Industry: Main Players

▪ Before the so-called “Streaming Wars”

Until November 2019, Netflix has been the market leader while facing Hulu, Amazon Prime Video and local content providers as main competitors.

Hulu, which is fully controlled and majority-owned by Walt Disney (67% owned) and partially owned by Comcast (33%), is a joint venture that provides a subscription video on demand service to its 28 million subscribers, only in the United States. Hulu competitive advantages are the price (Hulu basic ad-supported plan costs \$5.99 to customers) and the inclusion of a product called “Hulu + Live TV”, which couples the live TV offerings with Hulu’s existing library of TV series and films.

Regarding Amazon Prime Video, it is the second most popular SVoD service of the world, with more than 75 million subscribers worldwide (50.23 million in USA) and 100 million expected subscriptions in 2020 (resulting in \$1.7 billion in revenues)¹⁴. It offers films and television shows for purchase or rent and a subscription-based service (like Netflix) that includes a selection of Amazon Studios original and licenced content. Being available worldwide, having low monthly fees (€2,99 during the first six months and €5.99 per month from then on, in some European Countries) and providing access (for an additional monthly fee) to Amazon Channels, which are optional add-ons that provide on-demand or live streaming access to other suppliers’ content (including HBO and NBA League Pass in the United States) are all competitive advantages of this platform¹⁵.

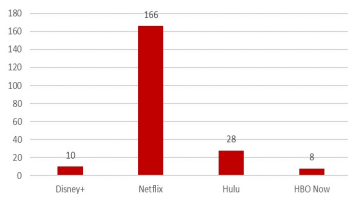
Netflix also has been competing with some local providers. In some countries, like Germany, France, India and Japan, these local competitors have high penetration rates because they are integrated in the country culture, by offering personalized content, adapted prices and marketing campaigns which customers identify with.

▪ Fierce Competition in SVoD Sector

¹³ Source: Statista

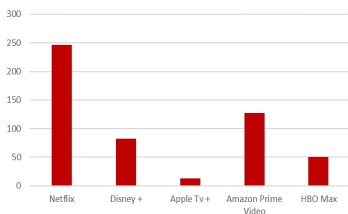
¹⁴ Source: Market Realist

¹⁵ Source: Amazon Prime Video Official Website

Number of subscriptions per service, in millions,
 as of November 2019

Exhibit 26: Number of subscriptions by service, as of November 2019 (including free trials)

Source: Statista

Paid Subscribers by player, in 2024 (in millions)


Exhibit 27: Forecasted number of paid subscribers by service, in 2024

Source: Digital TV Research

Company	International	Content Budget
Netflix	YES	\$13 billion
Disney+	YES	\$2.5 billion
Apple TV+	YES	\$6 billion
HBO Max	YES	\$2.5 billion
Hulu	NO	\$2.5 billion
Amazon Prime Video	YES	\$6 billion
CBS All Access	YES	unknown

Exhibit 28: Players comparison, as of 2019.

"It's a whole new world starting in November.", those were the words of CEO Reed Hastings, in an interview to *Variety*, when describing the entry of more deep-pocketed players like Apple and Disney into the SVoD market.

From the new services released or to be released, the biggest threat to Netflix is Disney+. It was released on November 12, 2019 in the United States, Canada, Australia, New Zealand and Netherlands¹⁶. The digital platform is available in Western Europe, UK and Latin America in March 2020 and in Eastern Europe, Asia and Pacific in September 2021. At the end of the first day, it has already counted with 10 million subscribers and it is expected to reach 82 million subscribers by 2024¹⁷. Its main competitive advantage is the variety and quantity of content with which Disney+ started its business. Disney released a library of more than 7500 episodes and 500 films including Marvel content, Disney live action films, Disney animation movies and series, Disney Channel movies and shows, Pixar movies, Star Wars movies and series, National Geographic content, Disney + Originals and licensed content (for instance, *The Simpsons*)¹⁸. The brand and the dimension of The Walt Disney Company are another competitive advantage of Disney+, since, as a parent company, The Walt Disney Company can leverage Disney+ business. Finally, the potential bundles that Disney can create, by joining movies and TV series, sports, and news can be advantageous for the company¹⁹.

As mentioned before, Apple entered in the streaming wars with Apple TV+, a SVoD platform launched on the 1st of November in more than 100 countries²⁰. Apple's dimension and brand is a competitive advantage in this market (just like The Walt Disney Company) since Apple can leverage Apple TV+. It has already started taking advantage of the parent company by bundling products (by buying an Apple device, the customer gets one-year free trial of Apple TV+)²¹.

HBO Max is another HBO service, which is owned by Warner Media Entertainment (the entertainment division of AT&T), that will be launched in 2020. AT&T is expecting HBO Max to reach the 50 million subscribers by 2025²². Current subscribers of HBO Now and HBO GO will have the option to create an HBO Max account, for free. HBO Max will offer to its subscribers HBO content (*Game of Thrones* and *Chernobyl*, for example), content from Warner Media Entertainment (*Friends* and CNN and Cartoon Network content) and new HBO original movies and shows.

¹⁶ Source: Todd Spangler and Leo Barracough: "Disney Plus: First Global Markets Get Launch Dates, Pricing" *Variety*, August 2019

¹⁷ Source: Digital TV Research 2019

¹⁸ Source: Haleigh Foutch. "Every Movie and TV Show Confirmed to Stream on Disney+ So Far" *Collider.com*, December 2019

¹⁹ Source: Disney + Official Website

²⁰ Source: Apple Official Website

²¹ Source: Apple Official Website

²² Source: "HBO Max predicted to exceed 50 million subs by 2025" *Digital TV Europe*, November 2019

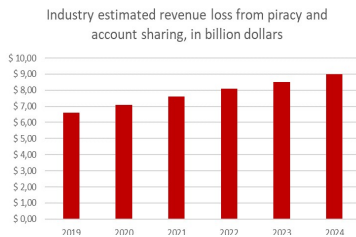


Exhibit 29: Industry estimated revenue loss due from piracy and password sharing
 Source: Bloomberg Report

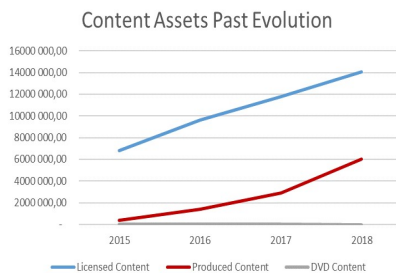


Exhibit 30: Netflix's Content Assets, 2015-2018
 Source: Company Data

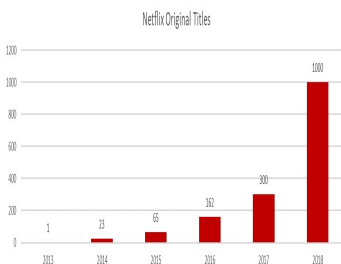


Exhibit 31: Number of Netflix Original Titles per Year
 Source: Statista

Another important aspect of this industry is the existence of piracy. These illegal channels of streaming are very appealing to people with low income. In fact, according to Statista, in 2018, there were 17.38 billion visits to media piracy websites in the US, which is a concern for SVoD service suppliers.

Netflix within the Industry

With the release of new services such as Disney+, Apple TV+, HBO Max, Peacock, YouTube Premium, NBCUniversal, CBS All Access, the competition became much more intense. This increasing competition leads to the growth of the content costs, since the larger demand for licensed content (content produced by others) pushes the prices up. For instance, Netflix paid \$30 million Warner Media per year to stream *Friends* in its platform from 2015 to the end of 2018. Nonetheless, in order to extend the availability of this series for one more year, Netflix has reached an agreement to pay Warner Media \$100 million²³. This shows how prices are increasing due to platforms' higher demand for content. Netflix's response to this upward trend in licensed content prices is to start investing more in the production Netflix Originals. Moreover, some previous content producers, like Disney, have created subscription-based platforms, passing from Netflix suppliers to Netflix competitors. Netflix has already felt this impact, by losing some content which rights belong to other companies. For example, popular TV series *Friends* and *The Office* are going to be pulled from the platform in 2020 and 2021, respectively, and Marvel movies are also progressively leaving Netflix²⁴.

However, Netflix has been preparing itself for this scenario since 2013, with the creation of original content. In the end of 2018, Netflix accounted for 1000 original titles, with 700 produced in that year. As stated before, nowadays, outsourcing content is more expensive than in the past due to the increasing demand, which is something that enhances Netflix to become independent of other studios. Moreover, when paying for licensed content, Netflix must pay its suppliers costs plus a profit margin, while for produced content it only pays the production costs. To be more precise, Netflix's Chief Content Officer, Ted Sarandos, stated in the 5th Annual MoffettNathanson Media & Communications Summit that the price charged for licensed content, produced by other studios, include a "30% to 50% markup". In order to better understand the difference between each type of content, a comparison between two licensed series (*The Office* and *Friends*) and two produced Netflix Originals (*The Witcher* and *Stranger Things*) has been made. Considering that Netflix paid \$100 million for *Friends* to be streamed for

²³ Source: Edmund Lee. "Netflix Will Keep 'Friends' Through Next Year in a \$100 Million Agreement" New York Times, December 2018

²⁴ Source: Daniel B. Kline "Actually, losing 'Friends' and 'The Office' won't hurt Netflix" USA Today, July 2019

TV Series	Total cost	Avg. episode cost	Avg episode cost / year
Stranger Things	\$ 50,96	\$ 7,41	\$ 0,37
The Witcher	\$ 80,00	\$ 10,00	\$ 0,50
Friends	\$ 101,74	\$ 0,43	\$ 0,43
The Office (2013)	\$ 110,48	\$ 0,55	\$ 0,09
The Office (2019)	\$ 500,00	\$ 2,49	\$ 0,50

Exhibit 32: Produced titles vs licensed titles (million \$)

one year, each episode costs, on average, \$0.431 million to be streamed (236 episodes). Regarding *The Office* case, in 2013, Netflix paid \$100 million for 6 years of streaming²⁵, resulting in a cost per episode of \$0.092 million per year. Recently, NBC has agreed to pay \$500 million to Universal Television²⁶, in exchange for the right to stream *the Office* for five years, corresponding to a \$0.497 million average cost per episode per year. Assuming that the produced series' practical lifetime is 20 years (which is the guaranteed lifetime of *The Office*) and since Netflix has spent approximately \$80 million to produce 8 episodes of *The Witcher*, its average cost per episode per year is \$0.5 million. Regarding *Stranger Things*, Netflix spent \$48 million to produce the first season (\$51 million at today's prices) and \$72 million for the second one (\$75 million in today's prices)²⁷. Since the first season is composed by 8 episodes and the second one by 9 episodes, it is estimated that each *Stranger Things* episode costs, on average, \$0.37 million per year. Considering that these produced series' lifetime will probably surpass the 20-year lifetime mark, like *Friends* and probably *The Office* (NBC will stream it from 2021 until 2025), producing content is a reliable strategy in order to save costs (in the long-run) and to be more independent of external producers and its licensing content price rising trend. Moreover, recently, original content viewership has been rising. For instance, in the US, original content viewership has increased from 14% in the beginning of 2017 to 37% in the end of 2018²⁸. Another example is the recent third season of *Stranger Things* (July 2019), which budget has not been revealed yet, that has accounted 40.7 million views in its first 4 days, a Netflix record²⁹. This demonstrates that Netflix original content is suitable for its customers, allowing it to follow its strategy without losing a huge number of subscribers to its competitors. However, a robust membership base is needed in order to be more independent, since it is required a massive initial investment to cover the fixed costs of producing content.

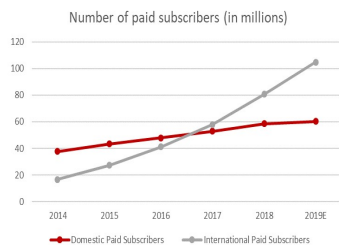


Exhibit 33: Netflix domestic and international streaming paid subscribers, 2014-2019E
 Source: Company Data

The company is also focusing on the international segment to attract and retain more subscribers, since the international segment is farther from saturation than the domestic one. Specifically, from 2014 to 2018, in the domestic segment, the company have (net) added 20.8 million paid subscribers (12% CAGR), while 64.0 million paid subscribers have been (net) added to the international segment (48% CAGR). During the first three quarters of 2019, this trend has been kept, since there were 101.929 million international paid subscribers registered at the end of the third quarter, representing a 16% rise in comparison with the same caption in

²⁵Source: "Netflix to Lose No. 1 Show 'The Office' to Comcast in 2021" Wall Street Journal, June 2019

²⁶Source: Sarah Whitten. "Why NBC is paying \$500 million to stream 'The Office,' a show it already owns" CNBN, June 2019

²⁷Source: Maureen Ryan and Cynthia Littleton. "TV Series Budgets Hit the Breaking Point as Costs Skyrocket in Peak TV Era" Variety, September 2019

²⁸Source: Todd Spangler. "Netflix Original Series Viewing Climbs, but Licensed Content Remains Majority of Total U.S. Streams" Variety, December 2018

²⁹Paul Tassi. "'Stranger Things' Season 3 Just Broke A Huge Netflix Record" Forbes, July 2019

2018 Netflix Originals origin

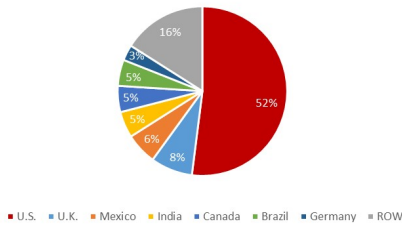


Exhibit 33: Netflix Originals origin by country, in 2018
 Source: Statista Study

Titles per platform		USA
Netflix		5 467
Disney+		839
Amazon Prime Video		25 278
Apple TV+		12
HBO Now		1 129

Exhibit 35: Number of Titles per platform in the United States, as of December 2019
 Source: Just Watch

end of 2018. In relative terms, in 2014, only 28% of total Netflix paid subscribers were from countries other than the US, while, in 2018, 57% were from the 190 countries where Netflix operates. To penetrate in local markets, this internationalization process includes the addition of personalized international content to Netflix's library. In 2018, Netflix has created 80 non-English speaking titles, such as *La Casa de Papel*, which had been "watched by 34 million household accounts over its first seven days" and reached countries with different cultures as Portugal, Chile and India³⁰. This demonstrates that not only some specific personalized content (in this case, to Spanish viewers) has success in the main target country/region, but it also penetrates in other markets. While in India Netflix plans to release more 15 Indian originals (until 2020), in Europe, the company has spent \$1 billion in producing originals and, intends to produce 100 more non-English shows per year until 2020, according to its CEO.

Regarding the library's dimension, Netflix displays more than 13500 titles worldwide, including documentaries, animations, TV series, movies and content for children³¹. However, due to licensing deals, the number of available titles is not the same in every country. Comparing each platforms' library, in the United States, one can verify that Amazon Prime (25278 titles) is the one with the most available titles, with Netflix (5467 titles) and HBO Now (1129) respectively following it. From the new market joiners, Disney+ has the advantage (over Apple TV+) of being involved in the Media and Entertainment Industry for many years, allowing it to add its past content to its streaming platform.

Relative Valuation

Although there are several competitors appearing in this industry, Netflix is the only company that focus its activity only on a Streaming Video on Demand service. For example, Amazon.com, Inc., parent of Amazon Prime Video, operates in many other sectors like E-commerce or artificial intelligence. The same is applicable to AT&T (holds HBO), since it performs in the telecommunications media and technology industries.

We considered that a Netflix comparable must broadcast content through an IT channel, with business operating worldwide. Therefore, we have chosen Walt Disney, CBS, Discovery, Viacom, Vivendi and Comcast. We have not included Amazon, Apple (which has not included Apple TV+ in its financial statements yet) and AT&T because their streaming segment revenues are residual when compared with revenues of other business units.

³⁰ John Hopewell and Jamie Lang. "Netflix's 'La Casa de Papel' – 'Money Heist' – Part 3 Smashes Records" Variety, August 2019

³¹ Source: Finder

Multiple	Average	Share Price
FWD EV/EBIT	31,55	216,85
FWD EV/SALES	4,56	96,13
Price to Book	6,22	110,85
Trailing P/E	40,83	112,84
Forward P/E Ratio	24,55	67,87
FWD EV/EBITDA	30,11	213,93
Netflix		136,41

Exhibit 36: Multiples Valuation
Source: Bloomberg

The results obtained are in line with was mentioned above. An estimated Netflix share price of \$136.41 demonstrates that Netflix does not have suitable comparables, since industry peers operate in more segments other than SVoD and even in the subscription video on demand market, they are in a completely different growth stage. Hence, the relative valuation does not provide a clear idea of Netflix possible future value.

Forecast

Membership Forecast

It is important to recognize that Netflix's penetration rate is broken down into two effects: the SVoD penetration rate and Netflix's market share. While the former refers to the SVoD market dimension, showing the number of SVoD subscribers per broadband home, the latter reveals Netflix's position within the market, comparing its number of memberships with the total of SVoD subscriptions. Although Netflix's overall market share decreased from 39.71% to 38.48%, in 2018, Netflix's total penetration rate increased from 17.52% to 20.88%, resulting in a rise of almost 29 million paid subscribers. This can be explained by an expansion of the SVoD market, represented by a 10p.p. improvement of the SVoD penetration.

Global Streaming	2017	2018	2019E
NFLX Market Share	39,71%	38,48%	39,37%
SVoD Penetration	44,11%	54,27%	60,24%
Netflix Penetration	17,52%	20,88%	23,71%

Global Streaming	2017	2018	2019E
Netflix Subscribers	110,64	139,26	165,93
SVoD Subscribers	278,60	361,88	421,51
Broadband Homes	631,66	666,83	699,72

Exhibit 37: Netflix Global Membership Drivers
Source: Company Data

Domestic Streaming	2017	2018	2019E
Netflix Subscribers	52,81	58,49	61,22
SVoD Subscribers	132,02	156,55	182,28
Broadband Homes	110,51	116,47	120,93

Exhibit 38: Domestic Membership Drivers, in millions
Source: Company Data

Regarding the Domestic Streaming Segment, although Netflix's market share declined from 40% in 2017 to 37% in 2018, its number of paid subscribers has grown 11%, from 52.810 million to 58.486 million subscribers. This growth is explained by an increase in the 2017 SVoD penetration rate from 119% to 134% in 2018, which means that, on average, each broadband home subscribes to 1.34 SVoD services. In 2019, a SVoD penetration of 151% is expected, while the company expects to have 61.22 million paid subscribers, corresponding to a market share of 34%. In fact, regarding domestic paid net streaming membership additions, 2019 has been a difficult year for Netflix, adding 2.134 million paid subscribers in the first 9 months of the year, which is less 2.013 million additions than in the previous year (-49%). This can be explained by a slowdown of the growth of streaming market in the US and the entrance of new competitors in the region. In the following years, we expect Netflix to lose some space in the streaming market (a yearly decrease of 2 p.p. in 2020 and 2021, and a yearly decrease of 1 p.p. until 2024) due to the entrance and consolidation of new important competitors such as Disney+, HBO Max and Apple TV+. After reaching a market share of 27% in 2024, we expect it to keep stable in the future, since at that time, the competitors' position will be consolidated, and Netflix will already have a robust membership base. Regarding the evolution of the SVoD

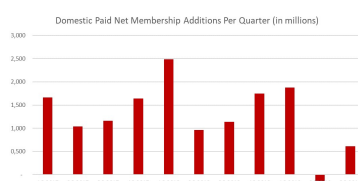


Exhibit 39: Domestic Paid Net Membership Additions, Q1 2017-Q3 2019
Source: Company Data

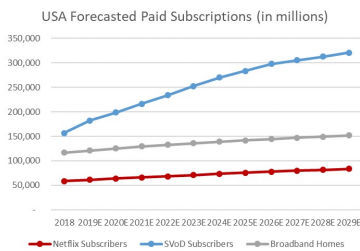


Exhibit 40: Forecasted USA Netflix paid subscribers, SVoD subscribers and total broadband homes
 Source: Company Data, Digital TV, Analyst Estimates

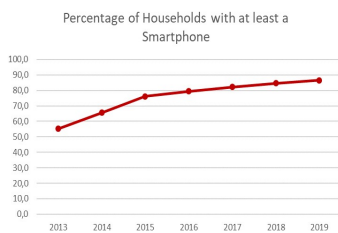


Exhibit 41: Percentage of households with at least one smartphone
 Source: Euromonitor Passport

Canada Streaming	2017	2018	2019E
Netflix Subscribers	5,61	6,27	6,56
SVoD Subscribers	8,01	11,30	13,45
Broadband Homes	13,92	14,30	14,70

Canada Streaming	2017	2018	2019E
NFLX Market Share	70,10%	55,50%	48,77%
SVoD Penetration	57,50%	79,02%	91,47%
Netflix Penetration	40,31%	43,86%	44,61%

Exhibit 42: Canada Membership Drivers, in millions
 Source: Company Data

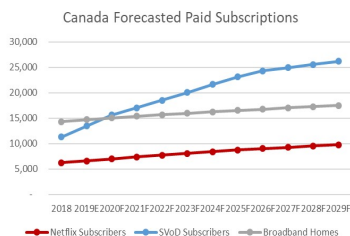


Exhibit 43: Forecasted Canada Netflix paid subscribers, SVoD subscribers and total broadband homes
 Source: Company Data, Digital TV Research, Euromonitor Passport, Analyst Estimates

penetration rate, we expect it to increase more in the short run (to 194% in 2024) because of the entrance of the new players, which will increase the available options for subscribers. From 2025 on, since new competitors will start consolidating their business, the penetration of SVoD will grow at a steady pace (1 p.p. growth per year until 2029). In 2029, Netflix is expected to reach 83.710 million paid subscribers, which corresponds to a total Netflix penetration of 55% and to a SVoD penetration rate of 212%. When comparing it with the penetration of pay TV, we can see that SVoD is winning over the traditional linear tv, which reached a peak of 87% in 2006 and it has been decreasing, since then (82.2% in 2018)³². The reason for this is that traditional TV is more expensive than the SVoD services. The SVoD penetration is very high in the US, being strongly supported by the diffusion of gadgets that facilitates watching the content anywhere. In fact, in 2018, 84.6% of households had at least a smartphone, a penetration that has increased from 65.6% in 2014, and it is expected to keep increasing to 95.4% in 2029, as the younger generations are more prone to use it.

The International Streaming segment was divided in 7 regions: Canada, Western Europe, Eastern Europe, Middle East and North Africa, Sub-Saharan Africa, Asia Pacific and Latin America.

Canada was the first region outside the US, where Netflix has entered. In 2018, Netflix has registered 6.3 million paid subscribers, a 12% growth from 2017, corresponding to a total penetration of 44%. From 2017 to 2018, Netflix market share has decreased from 70% to 56% but the SVoD penetration rate increased from 58% to 79%, resulting in a rise of 0.6 million paid memberships. We expect the entrance of important competitors such as Disney+ and Apple TV+, to negatively impact the market share, decreasing it to 49%, in 2024, following the US trend, since these countries are very similar in terms of cultural tastes. After that we consider it to keep stable as the new players already consolidated its position in the region. Regarding the SVoD penetration, we expect it to reach 91% in 2019, and keep growing until hitting the 133% in 2024. At this stage, we expect it to decelerate and grow 1% per year. In 2029, Netflix will have 9.748 million paid subscribers, corresponding to a market share of 47%, while having a SVoD penetration of 150% and a total penetration of 56%, a similar value to the one observed in the USA, due to the similarities between both countries. In this region the Penetration of pay TV reached a peak of 90%, in 2009, and it has gradually decreased to 68%, in 2018, which demonstrate that the cord-cutting phenomenon has been considerable, helping the proliferation of the SVoD

³² Source: Euromonitor Passport

services. The possession of smartphones increased from 41.8% in 2013 to 69.9% in 2018³³ and it is expected to keep growing to 93.7% in 2029, a trend that facilitates the SVoD proliferation.

From 2017 to 2018, in Western Europe, Netflix has registered a paid subscribers' growth of 33%, accounting 35.072 million paid subscribers in 2018 (market share of 54% and SVoD penetration of 37%). In 2019, we expect Netflix to reach the 42.802 million paid subscribers, achieving a growth of 22%. However, with the launch of Disney+ (in 2020) and HBO Max (in 2021), the panorama is expected to change gradually. The increase in competition, the existence some local content providers with significant market share, as it happens in France and the leading position of some competitors like Amazon Prime Video in Germany, will reduce Netflix's market share in Western Europe. We expect it to decrease 4% per year, from 2020 to 2024, stabilizing after this year, due to the consolidation of competitors' position in the market. The SVoD penetration will increase from 41% in 2019 to 75% in 2028, since most countries are developed and the broadband connection is well diffused through the households (as of 2018, 82% of total households have access to a broadband connection). Regarding the smartphone penetration, it increased from 51.4% in 2014, to 71.3%, in 2018, which represent a rising trend beneficial to the SVoD penetration increase. However, SVoD will not reach a penetration rate as high as in Canada or USA since the cord-cutting is not so significant in this region. In fact, the penetration of pay TV has reached a peak of 59% in 2011, and has decreased to 54% until 2018, which demonstrate that the traditional linear TV was not able to penetrate in Western Europe as much as it happened in North America (showing that these type of entertainment services are less attractive in the Western Europe). By following the same behaviour, Western Europe SVoD penetration is expected to exceed the pay TV penetration (as in the North America) but it is not expected to exceed the 100% rate.

Western Europe Streaming	2017	2018	2019E
Netflix Subscribers	26,38	35,07	42,80
SVoD Subscribers	57,47	65,19	73,66
Broadband Homes	168,81	174,01	179,72
Western Europe Streaming	2017	2018	2019E
NFLX Market Share	45,90%	53,80%	58,11%
SVoD Penetration	34,04%	37,46%	40,99%
Netflix Penetration	15,63%	20,16%	23,82%

Exhibit 44: Western Europe Membership Drivers, in millions
Source: Digital TV Research

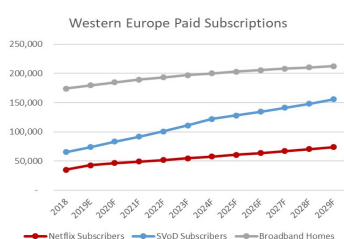


Exhibit 45: Forecasted Western Europe Netflix paid subscribers, SVoD subscribers and total broadband homes
Source: Company Data, Digital TV Research, Euromonitor Passport, Analyst Estimates

Eastern Europe Streaming	2017	2018	2019E
Netflix Subscribers	3,00	4,05	5,27
SVoD Subscribers	7,10	10,02	13,02
Broadband Homes	72,29	75,04	78,31
Eastern Europe Streaming	2017	2018	2019E
NFLX Market Share	42,25%	40,45%	40,45%
SVoD Penetration	9,82%	13,35%	16,63%
Netflix Penetration	5,67%	7,95%	9,90%

Exhibit 46: Eastern Europe Membership Drivers, in millions
Source: Company Data

Eastern Europe is a region where Netflix has a very small penetration. Netflix has registered 4.051 million paid subscribers in 2018, growing 35% as of 2017. However, it only represented a total penetration of 5%, as result of a 40% market share and of a SVoD penetration of 13% (3 p.p. growth from 2017). In this region, if we consider the beginning of the cord/cutting phenomenon the period that penetration of Pay TV starts decreasing, we can see that it has reached a peak of 66% in 2017, starting to decline after that (in 2018 there was a Pay TV penetration rate of 61.9%). Concluding that the cord-cutting is in a very early stage, which, in part, explains the low SVoD penetration. In the following years,

³³ Source: Euromonitor Passport

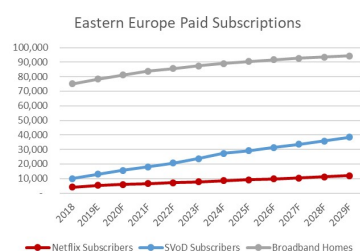


Exhibit 47: Forecasted Eastern Europe Netflix paid subscribers, SVoD subscribers and total broadband homes
 Source: Company Data, Digital TV Research, Euromonitor Passport, Analyst Estimates

SVoD penetration is expected to grow, on average, 2.5 p.p. per year, reaching a 41% penetration in 2029, which is still far from the peak of the penetration of pay TV. SVoD platforms will face a barrier that will slow down its penetration which is a content quota approved by the European Parliament that will force each SVoD player to have at least 30% of European origin content³⁴ (11% of Netflix Originals are European). The rise of SVoD penetration can be helped by the increase of smartphone penetration (from 42.2% in 2014 to 66.8% in 2018). Culturally speaking, Eastern Europe differs from North America and Western Europe, which creates a barrier to Netflix's penetration in the region. Therefore, in order to reach a higher market share, it is fundamental to invest in personalized content for this region. In 2019, we expect Netflix to maintain its market share, however, in the following years, the entrance of Apple TV+ (end of 2019), Disney+ (2021) and HBO Max (2021) will fragment the market. This will conduct to a loss in market share of 2 p.p. per year until the consolidation of these platforms in 2024 (market share of 31%), that will remain in the future due to the rising investment in local-language content. In 2029, Netflix will have 11.995 million paid subscribers, which corresponds to a 13% total penetration.

Latin America	2017	2018	2019E
Netflix Subscribers	19,72	26,08	30,80
SVoD Subscribers	23,23	35,52	40,85
Broadband Homes	76,81	82,63	87,80

Latin America	2017	2018	2019E
NFLX Market Share	84,89%	73,41%	75,38%
SVoD Penetration	30,24%	42,99%	46,53%
Netflix Penetration	25,67%	31,56%	35,08%

Exhibit 48: Latin America Membership Drivers, in millions
 Source: Company Data



Exhibit 49: Latin America Netflix paid subscribers, total broadband homes and SVoD subscribers
 Source: Company Data, Digital TV Research, Euromonitor Passport, Analyst Estimates

Regarding Latin America, Netflix has achieved a paid subscribers' growth rate of 32% from 2017 to 2018, accounting 26.077 million paid subscribers. It corresponds to a SVoD penetration of 43%, a 73% market share and a total penetration rate of 32%. In this market, there are some local players that have an important share, like Claro Video (3.166 milion paid subscribers in 2019), while Amazon Prime Video (3.698 million paid subscribers) is also taking a substantial part of the pie.³⁵ The former has entered in a licensing agreement with Disney, offering its customers Disney titles³⁶. To compete in this region, it is fundamental to have a strong base of Romance-languages content, which is the focus of local providers. Although Netflix has already started to produce Romance-languages titles such as *La Casa de Papel*, it is expected to lose market share in the following years (from 73% in 2018 to 62% in 2024) due to the growth of the above-mentioned platforms and to the entry of Disney+ (August 2020) and HBO Max (2020) in the market. The SVoD penetration is expected to be 47% in 2019 (4 p.p. growth) and 69% in 2029, growing at a decreasing rate. Netflix is still growing in this region because Latin America is still in an earlier development stage in comparison with developed regions like the North America. A low 2018 broadband penetration (43%) and the still rising 2018 smartphone (from 39.9% in 2014 to 61.8% in 2018) and pay TV (from 41.1% in 2014 to 54.1% in 2018)³⁷

³⁴ Source: Robert Briel "European Parliament approves 30% European content in VOD" Broadband Tv News, October 2018

³⁵ Source: Digital TV Research

³⁶ Source: Erik Gruenwedel "Disney Licensing Movies, TV Shows to Amazon Prime Video in Latin America" MediaPlay News, October 2019

³⁷ Source: Euromonitor Passport

penetrations are evidence of that. For those reasons, Netflix paid subscribers are predicted to double from 2018 to 2029, making 52.436 million paid subscribers in 2029.

In the Middle East and North Africa, Netflix had 3.11 million paid subscribers in 2018, which corresponds to a 27% market share, a SVoD penetration of 24% and a total penetration of 7%. This region includes all the Arabic world, which has very specific cultural tastes, strongly connected with their religion. The market is very fragmented with some local players such as Starzplay (1.09 million paid subscribers) and Shahid Plus playing an important role, since the former has announced on November 2019 the beginning of original content creation, appointing a former Hulu executive to lead this strategy³⁸. We expect Netflix to gain some market share (from 27% in 2018, to 37%, in 2029) as a result of an investment in Arabic Original titles such as *Justice*, *Jinn*, *Dollar* or *Paranormal*, which is intended to keep in the future. Regarding the SVoD penetration, it is expected to grow from 30% in 2019, to 48% in 2029, being very far from the penetration of pay TV in 2019, which is 79.7% (increased from 76.9% in 2014). This SVoD penetration growth can be explained by the fact that there are highly technologically developed countries such as Turkey, UAE, Israel and Saudi Arabia that facilitate the penetration of internet based services. It is also proved by the increasing smartphone proliferation trend from the past few years, since it has been growing from 33.1%, in 2014, to 56.5%, in 2019, and it is expected to keep growing in the next years until a 91.8% penetration in 2029³⁹. In 2019, Netflix will reach 14.059 million subscribers, corresponding to total penetration of 18%.

Regarding Sub-Saharan Africa, in 2018, Netflix has registered 1.364 million paid subscribers out of 3.030 million SVoD users (45% market share) and of 4.795 million broadband homes (63% SVoD penetration), combining for a total penetration of 28%. An important remark is that South Africa and Nigeria accounted for 71% of the total SVoD subscribers (2.151 million SVoD memberships) and 30.5% of the total broadband homes (1.461 million), in 2018. Most of the countries included in this region are in a very early stage of development. For instance, in 2018, from the total 212 million households registered, only 4.7 million have access to broadband connection. In the future, this number is expected to increase, following the international trend of broadband dissemination. The SVoD penetration will continue expanding (from 63%, in 2018, to 89%, in 2024) due to more developed countries such as South Africa, Nigeria, Kenya and Ethiopia and to the current rise of smartphones

MENA	2017	2018	2019E
Netflix Subscribers	1,80	3,11	4,25
SVoD Subscribers	5,22	11,31	14,70
Broadband Homes	42,98	46,96	49,84
MENA	2017	2018	2019E
NFLX Market Share	34,47%	27,50%	28,87%
SVoD Penetration	12,15%	24,08%	29,50%
Netflix Penetration	4,19%	6,62%	8,52%

Exhibit 50: Middle East and North Africa Membership Drivers, in millions
 Source: Company Data

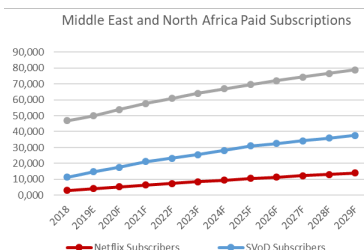


Exhibit 51: Forecasted Middle East and North Africa Netflix paid subscribers, SVoD subscribers and total broadband homes
 Source: Company Data, Digital TV Research, Euromonitor Passport, Analyst Estimates

Sub-Saharan Africa	2017	2018	2019E
Netflix Subscribers	0,68	1,36	1,87
SVoD Subscribers	1,56	3,03	4,24
Broadband Homes	4,21	4,79	5,74
Sub-Saharan Africa	2017	2018	2019E
NFLX Market Share	43,65%	45,00%	44,10%
SVoD Penetration	37,08%	63,19%	73,92%
Netflix Penetration	16,19%	28,44%	32,60%

Exhibit 52: Sub-Saharan Africa Membership Drivers, in millions
 Source: Company Data

³⁸ Source: Digital Tv Research

³⁹ Source: Euromonitor Passport

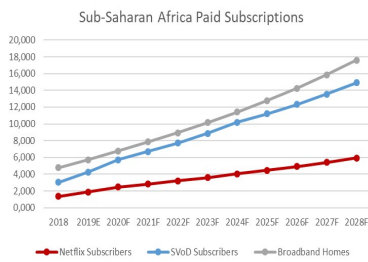


Exhibit 53: Sub-Saharan Africa Netflix paid subscribers, total broadband homes and SVoD subscribers

Source: Company Data, Digital TV Research, Euromonitor Passport, Analyst Estimates

Asia Pacific	2017	2018	2019E
Netflix Subscribers	6,50	10,61	16,34
SVoD Subscribers	44,00	68,96	79,31
Broadband Homes	142,13	152,63	162,69

Asia Pacific	2017	2018	2019E
NFLX Market Share	14,78%	15,38%	20,61%
SVoD Penetration	30,96%	45,18%	48,75%
Netflix Penetration	4,57%	6,95%	10,05%

Exhibit 54: Asia Pacific Netflix paid subscribers, total broadband homes and SVoD subscribers

Source: Company Data, Digital TV Research, Euromonitor Passport

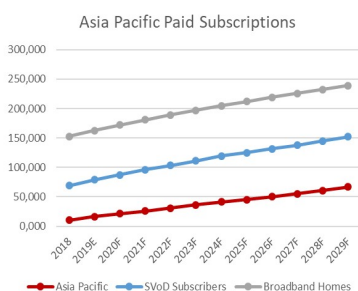


Exhibit 55: Forecasted Asia Pacific Netflix paid subscribers, SVoD subscribers and total broadband homes

Source: Company Data, Digital TV Research, Euromonitor Passport, Analyst Estimates

penetration (from 29% in 2014 to 52.1% in 2018). However, from 2024 on, SVoD penetration is expected to diminish (from 89% to 84%, in 2029) as these countries approach a more mature stage and the developing countries' broadband homes will increase at a pace that will outperform the SVoD subscribers' growth. Furthermore, the penetration of pay TV is low in this region⁴⁰ (in 2018 it was 13%, and it is expected to grow until 17% in 2029), which shows that there are other countries (with 50% or more of TV penetration) with a higher 'venues' potential in the short-run. South Africa is again an outlier, with a paid TV penetration of 51.5% in 2018, proving that it is a country with high potential for SVoD platforms to expand. Regarding Netflix market share, it is expected to decrease from 45% in 2018 to 40% in 2024 since some local providers, such as iRoko (expected to have 1.536 million paid subscribers in 2023, from 0.308 million paid subscribers in 2018) or Showmax (expected to have 1.728 million paid subscribers in 2023, from 0.334 million paid subscribers in 2018), are gaining relevance in the market⁴¹. With that said, Netflix will have 6.542 million paid subscribers by 2029, which represents a total penetration rate of 34%

Concerning Asia Pacific, it is important to state that Mainland China is not included, since Netflix is not available there and does not intend to be in the future. In 2018, Netflix reached 10.607 million paid subscribers, resulting in a 15% market share and a 45% SVoD penetration. This region includes Australia and New Zealand, which are countries with a lot of cultural similarities to the U.S., but it also includes countries like Japan or India, where the language and cultural tastes are completely different. In the latter case, there are local content providers leading the market such as Iflix with estimated 25 million paid subscribers⁴² (as of March 2019) or Hotstar (owned by The Walt Disney Company), the local leader in Indian streaming market, with 300 million monthly active users⁴³. The population disposable income is very unequal, since there are countries with very different levels of income, as we can see through the comparison between Australia and India. (In Australia the average monthly disposable salary is 3780.69\$, and in India, it is 452.11\$)⁴⁴. In India, Netflix implemented a mobile-only plan, way less expensive than its traditional streaming plans and more competitive (costs 199 Rs, which is less than 3\$ per month) in a market where Amazon costs 129 Rs per month and the leader Hotstar costs 299 Rs per month or 999 Rs for a yearly subscription⁴⁵. Recently, Netflix's CEO, Reed Hastings, has announced that Netflix will invest 400 million

⁴⁰ Source: Euromonitor Passport

⁴¹ Digital Tv Research

⁴² Source: Digital Tv Research

⁴³ Source: Jonathan Easton "Hotstar surpasses 400 million app downloads", Digital Tv Europe, December 2019

⁴⁴ Source: Nation Master comparison

⁴⁵ Source: Tom Warren "Netflix launches mobile-only streaming plan in India for less than \$3 per month" Forbes, July 2019

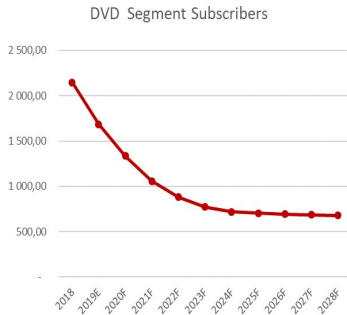


Exhibit 56: Forecasted DVD Subscribers
Source: Company Data, Analyst Estimates

Company	Lowest Price	Highest Price
Netflix	\$8.99	\$15.99
Disney+	\$7.00	
Apple TV+	\$4.99	
HBO Max	\$14.99	
Hulu	\$5.99*	\$11.99
Amazon Prime Video	\$8.99**	\$12.99
CBS All Access	\$5.99*	\$9.99

*Ad-supported plan

**Annual commitment

Exhibit 57: SVoD services prices, as of November 2019
Source: Companies websites

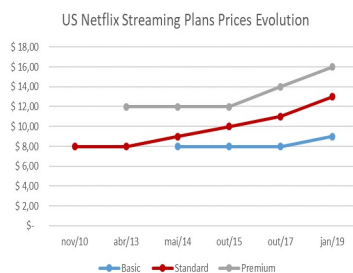


Exhibit 58: US Netflix Streaming Plans Prices Evolution, 2010-2019
Source: Netflix announcements and news reports

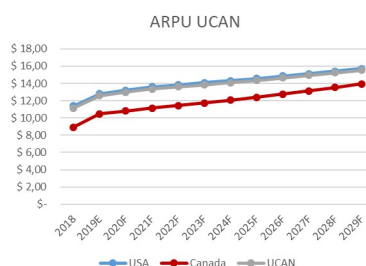


Exhibit 59: Netflix ARPU in Canada, U.S.A. and North America
Source: Company Data, Analyst Estimates

on Indian content in the next two years, since India is the second most-populated country and one of the fastest-growing Internet markets in the world. With that said, we expect market share to increase by around 10% per year, as result of the efforts made by Netflix, and then it will start to slow down after 2024, reaching a 44% market share in 2029. Regarding SVoD penetration, due to some developing countries in the region and to the increasing smartphone penetration (growing from 69.5%, in 2018, to 93.5%, in 2029), SVoD penetration is expected to grow from 45%, in 2018 to 64%, in 2029. In 2029, Netflix will have 67.114 million paid subscribers, and a total penetration of 28%.

Considering the Domestic DVD Segment, in 2018, Netflix had 2.706 million paid subscribers, a number that has been decreasing at a CAGR of 16.8%, since 2014. In 2019, we expect Netflix to have 2.146 million paid subscribers, and 0.680 million paid subscribers in 2029, following the recent past trend, as Netflix is not investing much in this segment.

Average Revenue per User (ARPU)

Netflix has three streaming plans with different features and prices (Exhibit 6). Bundles of different services play a big role in this market. A Subscriber Video on Demand platform that not only includes movies and TV series, but also live sports broadcast has a competitive advantage when compared with one that only includes movies and TV Series. An interesting bundle that can affect the whole market includes Hulu, Disney+ and ESPN+, for \$13 per month, providing members with access to movies, TV series and live sports broadcast⁴⁶.

Considering all these values (exhibit 56), we can conclude that Netflix's prices are among the highest of the market. The reason for that is the growth stage in which Netflix finds itself. The Los Gatos Company has been following its strategy of increasing its prices in more mature markets because it already has a solid customer base that will not grow as much as before (Canada and USA, for example). Netflix's competitors are doing the same. While the new joiners (Disney+ and Apple TV+) are trying to penetrate the market with low prices, the more mature platforms have higher prices (Hulu, Amazon Prime and HBO). The lower of competition in the past also allowed Netflix to raise its prices without losing a major part of its market share.

On December 16, 2019, Netflix has disclosed its number of paid memberships and average monthly revenue per user (ARPU) per geography for the first time. The company has broken down its revenues into four regions: United States and

⁴⁶ Source: Hulu Official Website

10 most expensive countries	Price per Month - Standard (\$)
Switzerland	\$ 14,26
Denmark	\$ 12,26
Israel	\$ 11,14
Finland	\$ 11,05
Spain	\$ 11,05
Italy	\$ 11,05
Austria	\$ 11,05
France	\$ 11,05
Germany	\$ 11,05
Iceland	\$ 11,05
10 cheapest countries	Price per Month - Standard (\$)
Colombia	\$ 7,21
Brazil	\$ 8,32
Chile	\$ 8,41
Mexico	\$ 8,62
Philippines	\$ 8,84
India	\$ 9,17
South Africa	\$ 9,22
Vietnam	\$ 9,48
Australia	\$ 9,50
Indonesia	\$ 9,77

Exhibit 60: Netflix Price per Country, as of September 2019 – 10 cheapest and most expensive countries
Source: Comparitech

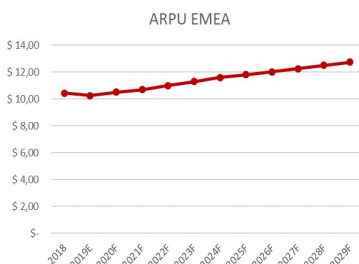


Exhibit 61: Netflix ARPU in Europe, Middle East and Africa
Source: Company Data, Analyst Estimates



Exhibit 62: Netflix ARPU in Latin America
Source: Company Data, Analyst Estimates

Canada (UCAN), Europe, Middle East and Africa (EMEA), Latin America (LATAM) and Asia-Pacific (APAC).

Beginning with UCAN, from 2017 to 2019, Netflix has managed to consistently increase its ARPU, from 2017 to 2019 (from \$9.84 in the first quarter of 2017 to \$13.08 in the third quarter of 2019), describing this rise as a result from “price changes and shifts in the plan mix towards higher priced plans”. Although the United States usually accounts higher ARPUs than Canada (~\$2.5 of difference), both have been following this rising trend, with the former registering a 11.8% CAGR compared with the latter’s 17.2% CAGR. In the future, with the entrance of new competitors, Netflix will not be able to increase its prices as it has been doing last years. Therefore, in the United States, the ARPU is expected to increase 3% in 2020 and 2021, hitting the \$13.60 up from \$12.79 (in 2019), and then it will follow the inflation rate (~2% growth per year), reaching the \$15.73 in 2029. Canada’s ARPU will have a higher growth rate (3% per year) in the future, due to the absence of some important players in the market (Hulu and HBO Max). For that reason, Canada’s estimated ARPU is estimated to be \$10,46 in 2019, \$11.84 in 2024 and \$13.66 in 2029. Combining both countries’ revenues and paid memberships, UCAN’s ARPU is forecasted to be \$12,57 in 2019, \$14,08 in 2024 and \$15,51 in 2029.

Europe, Middle East and Africa make up a region that comprises a group of countries with very different levels of disposable income. In 2018, Netflix’s ARPU was \$10.45, corresponding to a 14% growth in comparison with 2017 (\$9.17). In 2019, the ARPU is expected to drop to \$10.26 (2% fall), due to the impact of unfavourable exchange rate fluctuations and to higher VAT absorptions across Europe. To forecast the ARPU, it is important to notice that each region has its own prices and campaigns, with Western Europe having the highest prices of the EMEA region (Exhibit 59). Since Western Europe market will arrive at mature stage earlier than the other regions of EMEA, we expect EMEA’s ARPU to rise while Western Europe adds more subscribers than the other regions and then we expect it to increase at a lower rate as Netflix will add more subscribers (that pay a lower price) from other EMEA regions. Numerically, this will result in an ARPU’s yearly growth of approximately 3% until 2024 (\$11.61) and of 2% from 2024 to 2029 (\$12.74).

Since Latin America is a region less developed (and with less purchase power) than the North America and Western Europe, Netflix is not able to rise its price as it does in the mentioned regions. During the last three years, Netflix’s ARPU has been approaching the inflation growth rate. For that reason, it is forecasted that the ARPU’s growth will be in line with the inflation, by not increasing in real terms.

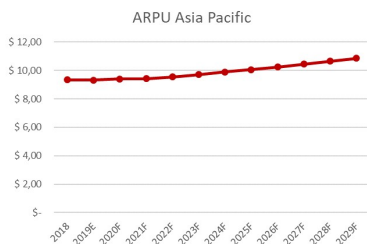


Exhibit 63: Netflix ARPU in Asia-Pacific
 Source: Company Data, Analyst Estimates

Concluding that the 2029 ARPU will be \$9.78, up from the \$8.19 ARPU that has been registered in 2018.

From 2017 to 2018, in Asia Pacific region, Netflix has registered an ARPU growth of 2.5%, by rising it from \$9.11 to \$9.33. In 2019, the ARPU is expected to remain almost the same (\$9.31). Since the disposable income tend to be low in this region and since Netflix is making efforts to penetrate in India, using low prices as a strategy to compete in this market, the ARPU is forecasted to yearly decrease in real terms by 0.5% until 2022 (\$9.54). From this point on, the ARPU growth is forecasted to be in accordance with the inflation, hitting the \$10.85 in 2029.

Revenues

Historically, Netflix's global revenues have increased at a 34% CAGR from 2016 to 2018 (from \$8.8 billion to \$15.8 billion). Although its yearly growth has been rising year after year, we expect it to decline from 2019 on, a year which Netflix expects to account \$20.1 billion (27% yearly growth) in global revenues. In the future, we expect Netflix global revenues to grow at a 10.5% CAGR (from 2018 to 2029), achieving \$47.2 billion in 2029. These revenues will come mainly from the growth of the International Segment, representing 67% of total revenues in 2029, while the other 33% will come from the Domestic Segment, since DVD's revenues will represent a residual part of total revenues.

As of 3rd quarter 2019, by comparing Netflix's revenues in each region, it is clear that the North America (\$10.0 billion expected in 2019) is the main geographical source of revenues to Netflix, following it the EMEA (\$5.5 billion), the Latin America (\$2.8 billion) and finally the Asia-Pacific (\$1.4 billion). Asia Pacific and EMEA are in a higher growing stage (60% and 52% 2017-2019 CAGR, respectively) while Latin America and North America are in a more mature stage (23% and 31% 2017-2019 CAGR, respectively). In the future, the North America will continue to be the geographical main source of revenues (\$17.2 billion in 2029), while EMEA will approximate it with \$15.8 billion. This goes in line with the growth stages described above, since EMEA revenues' CAGR, from 2018 to 2029, will be 13%, while UCAN's will be 7%. Although EMEA will have more paid subscribers than UCAN, UCAN will have higher revenues, due to having a higher ARPU. The Asia Pacific, which have high potential due to the size of its population, follows EMEA, with \$8.3 billion in revenues, and then Latin America will be the region with lower revenues (\$6.0 billion). During the 2019-2029 period, Asia Pacific will confirm its potential by registering a 22% CAGR, while Latin America revenues' CAGR will be approximately 9%.

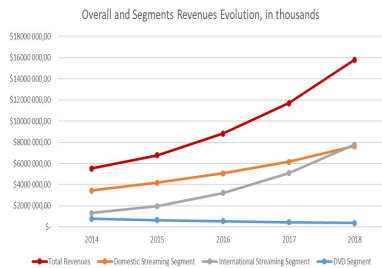


Exhibit 64: Netflix's Revenues by segment, 2014-2018.
 Source: Company Data

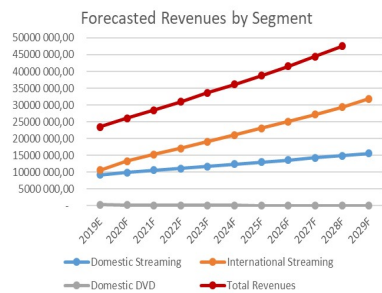


Exhibit 65: Netflix's Forecasted Revenues (in thousands) per Region, 2019E – 2029F
 Source: Company Data, Analyst Estimates

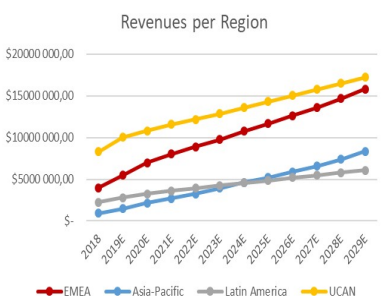


Exhibit 66: Netflix's Revenue per Region (in thousands), 2018-2029E.
 Source: Company Data, Analyst Estimates

Content Assets and Liabilities

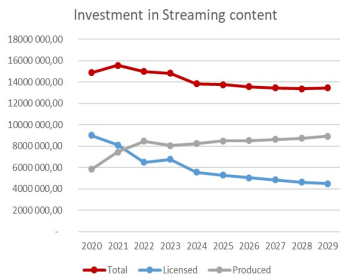


Exhibit 67: Investment in Streaming Content by Type, 2020F-2029F

Source: Company Data, Analyst Estimates

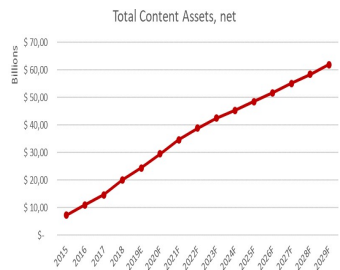


Exhibit 68: Netflix's Total Content Assets (in billions), 2015-2029F.

Source: Company Data, Analyst Estimates

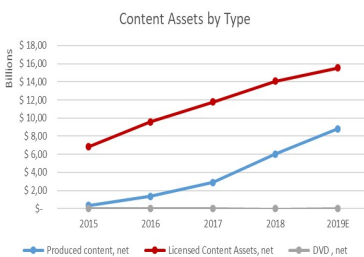


Exhibit 69: Netflix Content Assets by type, 2015-2019E

Source: Company Data, Analyst Estimates

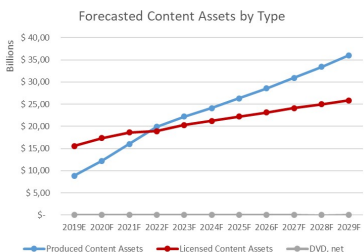


Exhibit 70: Netflix Forecasted Content Assets by type, 2019E-2029F

Source: Company Data, Analyst Estimates

Nowadays, Netflix has 3 types of content: 2nd run licensed titles, licensed originals and produced originals. Regarding licensed content, Netflix capitalizes the fee per title, recording a content liability (and respective content asset), at the gross amount, only when the license period begins, the cost of the title is known and the title is accepted and available for streaming. These 3 criteria must be verified at the same time before recording a title as content asset and consequent liability. For produced content, Netflix capitalizes costs incurred in the production process such as development costs, direct costs and production overhead.

The produced originals are produced and owned by Netflix and their rights are protectable as intellectual property. The licensed originals are produced by other studios, and then licensed to Netflix for a limited time. In order to maintain these titles, Netflix must renegotiate the licensing contract in the future, adding more costs. The 2nd run content refers to movies and shows that had already been broadcasted in another platform (cinema, TV, other streaming platforms) before being licensed to Netflix.

Analysing the evolution of content assets, one can see that the content relative expansion rate has been slowing down in the last years, reaching a 36.99% level in 2018 (total value of \$20.11 billion in content assets), which is lower rate than the 47.35% and 52.39% registered in 2015 and 2016, respectively. From the end of 2018 to the third quarter of 2019, the content assets have grown 15%. In the fourth quarter, the growth rate is expected to increase in line with what has been verified in the previous three quarters, reaching a year-end of 21.23% increase in content assets and a total value of \$24.38 billion. Total content assets are projected to increase, especially until 2022, as a reaction to the entry of new competitors in the market and then its growth will slow down gradually, recording \$61.9 billion in content assets, in 2029.

Regarding the type of content, as mentioned before, Netflix is following a more self-production strategy, allowing it to have more control over the costs, composition and availability of its library's content. The evolution of the weight of the produced content assets from 5% in 2015 (\$365 million) to 30% (\$6.0 billion) in 2018 (30%) is a result of that strategy. In 2019, by following the same strategy, it is expected that the produced content represents 36% of total assets (\$8.8 billion). With that said, the value of the produced content is projected to grow significantly until surpassing the 50/50 division within the content, in 2022 (\$18.9 billion in licensed content vs \$19.9 billion in produced content). From that point on, Netflix is expected to maintain the major investment in produced content,

reaching the 58% of the total content assets value, in 2029. On the other hand, the licensed content value is projected to decrease from 64% in 2019 (\$15.5 billion) to 42% (\$25.9 billion), with a residual value of 0.01% in DVD content assets (\$8.8 million).

Regarding Content Liabilities, in 2018, Netflix recorded \$8.445 billion, representing 74.77% of total content assets. This is an increase from the \$3.693 billion recorded in 2014, which corresponded to 41.99% of total content assets. In 2019, the value of content liabilities will decrease to \$8.172 billion (33.52% of total content assets), going in line with the decrease observed in the first three quarters of 2019. This behaviour is explained by the rising trend of the produced content. This type of content requires more upfront costs associated with studios, external services and payrolls during the production and less long-term costs related with annual licensing payments established in the contractual agreements. Due to that, fewer future payments have to be made in the future, reducing the value of the content liabilities. Until 2022, content liabilities are expected to value \$9.9 billion (25.5% of total content assets) and to reach a steady state, given the content investment slowdown from 2022 onwards. In 2029, Netflix will have \$10.22 billion of content liabilities.

Cost of Revenues

Amortization of the streaming content assets makes up most of the cost of revenues. The remainder of the cost of revenues include expenses related with the licensing and production of streaming content (for instance, personnel expenses), streaming delivery costs and other operation costs.

Regarding the content amortization, each type of content asset is amortized, on an accelerated basis, over the shorter of each title's contractual window of availability (the estimated period of use) or over 10 years, beginning in the first month of availability. Over 90% of a licensed or produced streaming content asset is expected to be amortized within four years after its first month of availability. Hence, since most of the content is amortized within 4 years, we estimate amortizations as a percentage of the previous 4 years content gross adds. For example, the forecasted 2020 amortization expense is correlated with the assets bought in the 2017, 2018, 2019 and 2020. In 2019, Netflix is expected to record \$8.9 billion of streaming amortization expenses, which corresponds to 19.85% of the last 4-year gross content adds. In the following years, this percentage will decrease, reaching a steady state in 2021 (18.5%). In 2029, Netflix will account \$9.9 billion of streaming content amortization costs. In order to estimate the amortization cost per type of content, we have analysed its values in the first quarters of 2018 and 2019 and we have considered the content

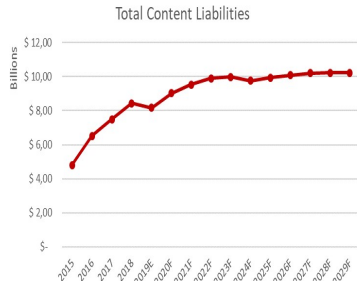
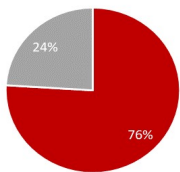


Exhibit 71: Netflix Total Content Liabilities, 2015-2029E
 Source: Company Data, Analyst Estimates

Costs of Revenues, 2018



■ Amortization of content assets ■ Other costs of revenues

Exhibit 72: Breakdown of Netflix's Costs of Revenues, 2018
 Source: Company Data

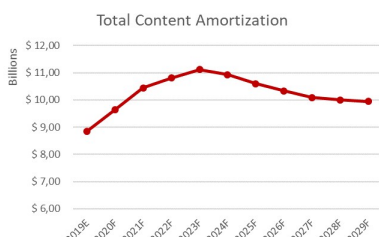


Exhibit 73: Netflix Total Content Amortization, 2019E-2029E
 Source: Company Data, Analyst Estimates

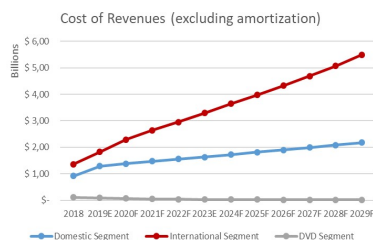


Exhibit 74: Netflix 2018-2029E cost of revenues (excluding amortizations)
 Source: Company Data, Analyst Estimates

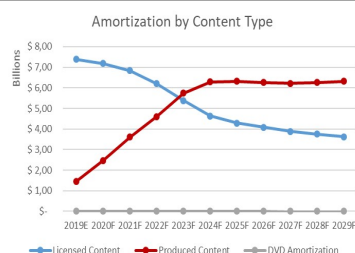


Exhibit 75: Netflix Content Amortization by Content Type, 2019E-2029E
 Source: Company Data, Analyst Estimates

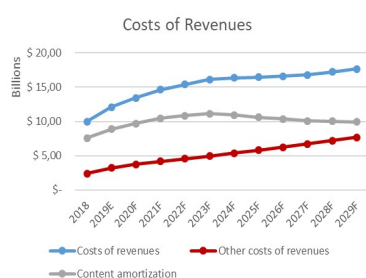


Exhibit 76: Netflix's Costs of Revenues 2018-2029E
 Source: Company Data, Analyst Estimates

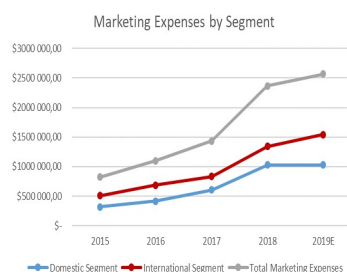


Exhibit 77: Netflix's 2015-2019E Marketing Expenses, in thousand dollars
 Source: Company Data, analyst Estimates



Exhibit 78: Netflix's Forecasted Marketing Expenses, in thousands, 2019E-2029E
 Source: Company Data, Analyst Estimates

strategy of the company. With that said, due to the self-production strategy that the company is following, licensed content amortization will start decreasing from \$7.3 billion, in 2019, to \$3.6 billion, in 2029, while the produced content amortization will follow the inverse path (increasing from \$2.5 billion to \$6.3 billion). Regarding the Domestic DVD amortization, we expect it to decrease to a residual value of \$4.9 million (2029), in keeping with the reduction of DVD content assets.

The total costs of revenues, which are projected to be 17.6 billion in 2029, also include the expenses related to payment processing fees and customer service call centres. It is expected that these expenses grow in accordance with revenues, since more subscribers (revenues) imply more customer service costs. In 2019, in terms of costs of revenues excluding the amortization expenses, Netflix will account \$1.2 billion (13.93% of the domestic revenues) in the domestic segment, \$1.8 billion in the international segment (17.28% of the international revenues) and \$111.9 million in the DVD segment (30.37% of the DVD revenues). Summing it up with the amortizations, the total cost of revenues will be \$12.1 billion. In 2029, in terms of costs of revenues (excluding amortization), Netflix will register \$2.1 billion in the domestic segment, \$5.5 in the international segment and \$24.5 million in the DVD segment, maintaining the same relation with revenues.

Marketing, G&A and Technology and Development

From 2014 to 2018, Netflix's marketing expenses have grown from \$0.607 billion to \$2.4 billion (41% CAGR). Domestically, in the same period, the marketing expenses have increased from \$0.293 billion to \$1.0 billion (36% CAGR). During that period, the international segment was the one in which Netflix has invested more in marketing, rising its expenses from \$0.313 billion to \$1.3 billion (44% CAGR). Regarding the DVD segment, Netflix has not invested in marketing and does not intend to do it. In the future, in the domestic segment, Netflix will increase its marketing expenses from the \$1.0 billion in 2019 (11% of domestic revenues) to the \$1.3 billion in 2029 (9% of domestic revenues). Due to its ongoing internationalization process, which requires promotional actions to reach the low penetrated markets, Netflix's international market expenses are anticipated to escalate from the 2019's \$1.5 billion (15% of international revenues) to \$2.9 billion (14% of international revenues), in 2024. In the long run (2029), international market expenses will reach the \$3.2 billion corresponding to 10% of international revenues. Overall, the rise of revenues per dollar invested in marketing is a result of economies of scale derived from the greater word-of-mouth promotion of the service, the gradually higher penetration of Netflix in

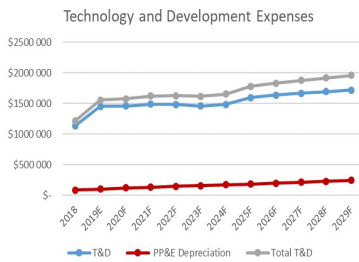


Exhibit 78: Netflix's Technology & Development Expenses, in thousands, 2018-2029E

Source: Company Data, Analyst Estimates

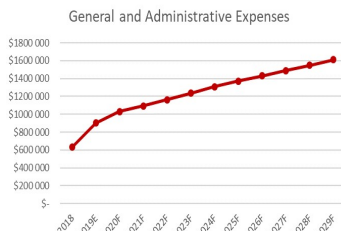


Exhibit 79: Netflix's G&A Expenses, in thousands, 2018-2029E

Source: Company Data, Analyst Estimates

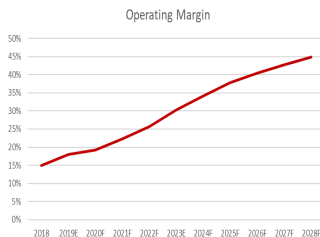


Exhibit 80: Netflix's Operating Margin, 2018-2029E

Source: Company Data, Analyst Estimates

WACC	
Risk-Free Rate	1,81%
Risk Premium	5,50%
Levered Beta	1,68
Cost of Equity	11,07%
Probability of default	16,46%
Annualized Probability of default	1,54%
Loss given Default	0,46
YTM	3,94%
Cost of Debt	3,24%
Market Value of Debt	12 135 178
Cash and Equivalents	468 862
Market Value of Net Debt	11 666 316
Net Debt to Equity	8,23%
WACC	10,42%

Exhibit 81: Netflix Weighted Average Cost of Capital

Source: Analyst Estimates

different markets and the consequent higher recognition of Netflix service, in more remote regions.

Technology and development expenses include costs associated with hardware and software, costs of improving Netflix service and the payroll and associated costs of personnel working on Netflix's IT teams. In 2019, Netflix is expected to register an expense of \$1.4 billion related with Technology and Development (excluding depreciation), corresponding to 7% of total revenues. By 2024, this percentage is forecasted to be reduced to 5%, due to economies of scale, resulting in a 2024 expense of \$1.4 billion and consequent \$1.7 billion, in 2029. In 2019, Netflix's PP&E depreciation is anticipated to reach the \$101.7 million dollars, representing 22% of the PP&E assets in 2019. Maintaining the same relation with PP&E, in 2029, the depreciation will lead T&D expense to a value of \$2.0 billion.

General and Administrative costs include the payroll and the expenses related 4.5% of the total revenues. By 2021, that percentage is expected to decrease to 3.8%, due to economies of scale, registering an absolute value of \$1.1 billion. In 2029, Netflix will have \$1.9 billion of G&A costs.

Operating Margin

From 2015 to 2018, Netflix's operating margin has increased from 5% to 10%. Moreover, the 2019 operating margin is expected to grow to 15%, mainly due to the considerable growth of the number of paid subscribers (and associated economies of scale). In the next years, it will continue to increase as a result of the international expansion, and the improved cost efficiency of the company, reaching a value of 44%, in 2028.

Valuation

WACC

In order to find a suitable rate to discount the free cash flows, a weighted average cost of capital has been used, since the company has a net debt to equity ratio of 8.2% (market values). We believe that the company will be able to gradually generate more revenues that will cover Netflix financing needs that result from its bold content investment strategy. On the other hand, in the long-run, Netflix will continue its content investing strategy, leveraging its business with debt. Therefore, the debt to equity ratio will remain constant over the years.

It is important to know that Netflix has a Ba3 Moody's credit rating and BB- S&P credit rating. Therefore, to determine Netflix cost of debt, we have subtracted the

product between the annualized probability of default, which is 1.54% (Standard & Poor's), and the loss given default of a senior unsecured bond, which is 0.48 (Moody's). from the weighted average of YTM (3.94%). Concluding that Netflix's cost of debt is 3.24%

The Capital Pricing Asset Model was used to determine the cost of equity. We considered the 10Y US Government Note yield, which is 1.81%, as the risk-free rate. Regarding the equity risk premium, we are assuming a commonly accepted value of 5.5%⁴⁷. In order to calculate Netflix beta, we regressed Netflix daily returns against S&P daily returns, over the last 3 years. With these calculations, we have estimated an equity beta of 1.68 and an associated 95% confidence interval of [1.51,1.86]. This means that Netflix is highly dependent on the market behaviour, exposing it to a systematic risk, which is line with Netflix's service, which is not seen as a necessary good. Concluding that Netflix cost of equity is 11.07%. Through these calculations, we come up with a WACC of 10.42%.



Exhibit 82: Netflix 1-Year Rolling Beta, 2017-2019
 Source: Analyst Estimates

FCF and ROIC

Due to the aggressive content investment strategy implemented by Netflix, the company has recorded negative free cash-flows, in the recent past. In fact, due to increasing content investment, the company has decreased its FCF from \$-1.0 billion, in 2015, to \$-3.1 billion, in 2018. Regarding Netflix's efficiency, in 2018, the company has registered a ROIC of 21.7%, slightly improving it from 2015's 20.6% ROIC. This ROIC is higher than the WACC, demonstrating that the international expansion is generating added value. From 2019 on, Netflix's free cash-flow will start improving, beginning with a \$-1.7 billion FCF and a ROIC of 20%. Until 2029, it is expected that Netflix will increase its efficiency, increasing its ROIC to 34.93%. From 2022 onwards, the free cash-flow will become positive in 2022 (\$1.7 billion) and it will increase gradually, reaching \$12.9 billion, in 2029.

After 2029, Netflix is expected to face a considerable business growth, since there are regions such as Middle East & North Africa, Asia Pacific or Eastern Europe, where the penetration rate is still lower than the potential penetration rate (when the market arrives to a mature stage). Therefore, it was used a 10-Y annuity until 2039, assuming that Netflix would grow at the Total Paid Memberships growth in 2029 (5.23%), adjusted with the inflation effect, resulting in a total annuity growth rate of 7.28%. After 2039, it is expected that Netflix grows in line with the economic growth. Therefore, it expected to perpetually grow at the forecasted World (excluding China) nominal GDP growth rate

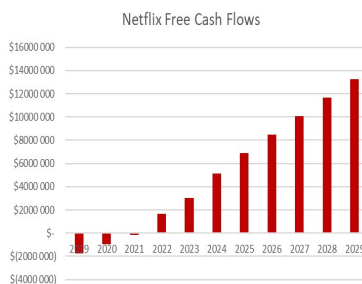


Exhibit 83: Netflix Free Cash Flows, 2019E-2029F
 Source: Analysts' Estimates

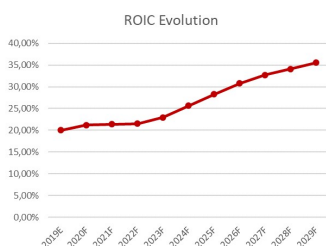


Exhibit 84: Netflix's ROIC Evolution, 2019E-2029F
 Source: Analysts' Estimates

⁴⁷ Source: Measuring and Managing the Value of Companies, McKinsey & Company, 4th Edition

Enterprise Value(\$billion)	155.092
Equity Value(\$billion)	143.146
Shares Outstanding (million)	438.251
Estimated Share Price(\$)	326.86
Real Share Price(\$)	323.57
Total Shareholders' Return	1%
Investment Advice	HOLD

Exhibit 85: Valuation Summary
Source: Analysts' Estimates

(4.87%)⁴⁸. All these assumptions lead to an Enterprise Value of \$155.092 billion and an Equity Value of \$143.146 billion. Given the current 438.251 million shares outstanding, it was obtained a price per share of 326.63\$.

Analysis

Sensitivity Analysis

Terminal Growth Rate	WACC					
	326,63	9,49%	9,92%	10,42%	10,80%	11,23%
	3,87%	370,66	333,87	298,37	275,03	251,19
	4,37%	391,48	350,44	311,33	285,87	260,09
	4,87%	416,82	370,29	326,63	298,55	270,39
	5,37%	448,31	394,50	344,96	313,57	282,45
	5,87%	488,51	424,68	367,31	331,63	296,76

Exhibit 86: Sensitivity Analysis on the WACC (Beta) and on the Terminal Growth Rate
Source: Analysts' Estimates

In order to test the impact of fundamental assumptions of our model, we conducted a sensitivity analysis on the WACC (varying according to the beta 95% confidence interval) and on the terminal growth rate. The WACC ranges between [9.49%,11.23%] and the TGR ranges between [3.87%,5.87%]. Through this analysis, one can notice than slight changes in our assumptions would change our final recommendation, which corroborates the idea that Netflix is facing a very challenging and uncertain stage of its lifetime.

Scenario Analysis

Scenario	Price	Probability
Best Scenario	370,00	10%
Base Scenario	326,63	80%
Worst Scenario	285,58	10%

Exhibit 87: Scenario Analysis
Source: Analysts' Estimates

In order to analyse the possible scenarios that Netflix may face, we have created an Optimistic Scenario that combines the impact of a possible price decrease in Asia-Pacific (Andre's Individual Report) and the introduction an Anti-Password Sharing System (Frederico's Individual Report), with a probability of occurrence of 10%, and a pessimistic scenario that assumes that the new competition will have a worse effect than what is expected in the Base Scenario, with a probability of occurrence of 10%. Considering these three scenarios, our price target is \$326.86.

Final Recommendation

As of 31 December 2020, Netflix's stock was trading at 323.57\$, which is 1% below the target price (\$326.86). Based on the expected shareholder's total return, our recommendation is to hold, since the expected total return to shareholder (1%) is below the 10%.

⁴⁸ Source: Euromonitor Passport

Appendix

Financial Statements

(In thousands)												
Income Statement	2018	2019E	2020F	2021F	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F
Domestic Streaming	\$ 58 486	\$ 61 220	\$ 63 750	\$ 66 239	\$ 68 029	\$ 70 946	\$ 73 209	\$ 75 451	\$ 77 733	\$ 79 677	\$ 81 669	\$ 83 710
International Streaming	\$ 80 773	\$ 104 710	\$ 122 917	\$ 135 542	\$ 147 592	\$ 160 967	\$ 172 986	\$ 184 794	\$ 196 928	\$ 208 900	\$ 221 760	\$ 235 585
Domestic DVD	\$ 2 706	\$ 2 147	\$ 1 685	\$ 1 337	\$ 1 060	\$ 880	\$ 774	\$ 719	\$ 705	\$ 695	\$ 688	\$ 681
Total Paid Memberships	\$ 141 965	\$ 168 077	\$ 188 352	\$ 203 117	\$ 216 681	\$ 232 793	\$ 246 969	\$ 260 964	\$ 275 367	\$ 289 271	\$ 304 117	\$ 319 977
Domestic Streaming	\$ 7 646 647	\$ 9 240 342	\$ 9 916 443	\$ 10 609 681	\$ 11 151 428	\$ 11 741 547	\$ 12 395 603	\$ 13 006 167	\$ 13 652 875	\$ 14 298 083	\$ 14 941 819	\$ 15 608 805
International Streaming	\$ 7 782 105	\$ 10 592 906	\$ 13 283 549	\$ 15 284 835	\$ 17 103 853	\$ 19 052 959	\$ 21 097 672	\$ 23 009 744	\$ 25 013 537	\$ 27 110 799	\$ 29 348 346	\$ 31 779 870
Domestic DVD	\$ 365 589	\$ 294 541	\$ 234 480	\$ 184 628	\$ 146 180	\$ 118 160	\$ 100 623	\$ 90 705	\$ 86 391	\$ 84 784	\$ 83 610	\$ 82 647
Revenues	\$ 15 794 341	\$ 20 127 789	\$ 23 434 472	\$ 26 079 144	\$ 28 401 461	\$ 30 912 666	\$ 33 593 897	\$ 36 106 616	\$ 38 752 803	\$ 41 493 666	\$ 44 373 775	\$ 47 471 322
Domestic Streaming	\$ 4 038 394	\$ 4 721 694	\$ 4 638 218	\$ 4 732 720	\$ 4 667 411	\$ 4 625 506	\$ 4 534 969	\$ 4 432 437	\$ 4 458 409	\$ 4 486 747	\$ 4 555 542	\$ 4 633 597
International Streaming	\$ 5 776 047	\$ 7 247 110	\$ 8 692 647	\$ 9 828 689	\$ 10 651 702	\$ 11 422 645	\$ 11 768 599	\$ 11 955 790	\$ 12 106 944	\$ 12 282 093	\$ 12 605 280	\$ 12 980 325
Domestic DVD	\$ 153 097	\$ 117 814	\$ 96 884	\$ 78 855	\$ 64 672	\$ 52 290	\$ 42 386	\$ 35 918	\$ 32 359	\$ 30 707	\$ 29 314	\$ 29 004
Cost of Revenues	\$ 9 967 538	\$ 12 086 618	\$ 13 427 749	\$ 14 640 264	\$ 15 383 786	\$ 16 100 441	\$ 16 345 954	\$ 16 424 145	\$ 16 597 712	\$ 16 799 548	\$ 17 190 135	\$ 17 642 925
Domestic Streaming	\$ 1 025 351	\$ 1 027 145	\$ 1 102 300	\$ 1 179 359	\$ 1 239 579	\$ 1 246 468	\$ 1 253 924	\$ 1 250 657	\$ 1 244 579	\$ 1 231 905	\$ 1 287 369	\$ 1 344 835
International Streaming	\$ 1 344 118	\$ 1 542 370	\$ 2 066 974	\$ 2 531 230	\$ 2 661 429	\$ 2 774 188	\$ 2 860 930	\$ 2 890 117	\$ 2 891 666	\$ 3 134 118	\$ 3 246 046	\$ 3 356 083
Domestic DVD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Marketing	\$ 2 369 469	\$ 2 569 515	\$ 3 169 274	\$ 3 710 590	\$ 3 901 008	\$ 4 020 656	\$ 4 114 854	\$ 4 140 774	\$ 4 136 245	\$ 4 366 023	\$ 4 533 415	\$ 4 700 918
Technology & Development	\$ 1 221 814	\$ 1 555 556	\$ 1 577 247	\$ 1 624 849	\$ 1 627 533	\$ 1 616 873	\$ 1 656 332	\$ 1 780 221	\$ 1 833 184	\$ 1 879 852	\$ 1 921 587	\$ 1 960 782
General & Administrative	\$ 630 294	\$ 904 093	\$ 1 029 187	\$ 1 093 177	\$ 1 162 121	\$ 1 233 961	\$ 1 307 396	\$ 1 441 292	\$ 1 546 921	\$ 1 656 330	\$ 1 771 297	\$ 1 894 944
Operating Income	\$ 1 605 226	\$ 3 012 007	\$ 4 231 016	\$ 5 010 264	\$ 6 327 013	\$ 7 940 735	\$ 10 169 362	\$ 12 320 185	\$ 14 638 740	\$ 16 791 913	\$ 18 957 341	\$ 21 271 753
NOPLAT	\$ 1 510 469	\$ 2 268 926	\$ 3 337 227	\$ 4 231 346	\$ 5 224 435	\$ 6 412 032	\$ 8 052 706	\$ 9 676 796	\$ 11 389 741	\$ 12 994 941	\$ 14 600 194	\$ 16 316 957
Balance Sheet	2018	2019E	2020F	2021F	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F
Operating Cash	\$ 315 887	\$ 402 556	\$ 468 689	\$ 521 583	\$ 568 029	\$ 618 253	\$ 671 878	\$ 722 132	\$ 775 056	\$ 829 873	\$ 887 475	\$ 949 426
Other Current Assets	\$ 748 466	\$ 856 492	\$ 997 201	\$ 1 109 739	\$ 1 208 560	\$ 1 315 418	\$ 1 429 512	\$ 1 536 435	\$ 1 649 037	\$ 1 765 669	\$ 1 888 225	\$ 2 020 034
Operating Current Assets	\$ 1 064 353	\$ 1 259 048	\$ 1 465 890	\$ 1 631 322	\$ 1 776 589	\$ 1 933 671	\$ 2 101 390	\$ 2 258 567	\$ 2 424 093	\$ 2 595 542	\$ 2 775 701	\$ 2 969 461
Accounts payable	\$ 562 985	\$ 443 874	\$ 493 126	\$ 537 655	\$ 564 960	\$ 617 551	\$ 671 752	\$ 674 965	\$ 682 098	\$ 690 392	\$ 706 444	\$ 725 052
Deferred revenues	\$ 760 899	\$ 896 979	\$ 1 157 702	\$ 1 279 273	\$ 1 386 567	\$ 1 483 901	\$ 1 611 450	\$ 1 756 565	\$ 1 879 470	\$ 2 007 796	\$ 2 143 323	\$ 2 295 774
Accrued expenses	\$ 477 417	\$ 864 536	\$ 1 076 869	\$ 1 263 596	\$ 1 432 921	\$ 1 605 986	\$ 1 778 876	\$ 1 929 984	\$ 2 071 429	\$ 2 217 934	\$ 2 371 883	\$ 2 537 454
Operating Current Liabilities	\$ 1 801 301	\$ 2 205 388	\$ 2 727 697	\$ 3 080 524	\$ 3 384 448	\$ 3 707 438	\$ 4 062 077	\$ 4 361 513	\$ 4 632 996	\$ 4 916 123	\$ 5 221 650	\$ 5 558 280
Net Operating Current Assets	\$ (736 948)	\$ (946 340)	\$ (1 261 807)	\$ (1 449 202)	\$ (1 607 859)	\$ (1 773 766)	\$ (1 960 687)	\$ (2 102 946)	\$ (2 208 903)	\$ (2 320 581)	\$ (2 445 949)	\$ (2 588 820)
Content assets	\$ 20 112 140	\$ 24 380 961	\$ 29 567 185	\$ 34 668 215	\$ 38 816 180	\$ 42 481 861	\$ 45 356 603	\$ 48 506 066	\$ 51 723 419	\$ 55 077 025	\$ 58 421 224	\$ 61 902 984
Property and equipment, net	\$ 418 281	\$ 469 429	\$ 546 548	\$ 608 228	\$ 662 391	\$ 720 958	\$ 783 491	\$ 842 093	\$ 903 809	\$ 967 732	\$ 1 034 903	\$ 1 107 146
Operating non-current assets	\$ 20 530 421	\$ 24 850 390	\$ 30 113 733	\$ 35 276 443	\$ 39 478 571	\$ 43 202 819	\$ 46 140 094	\$ 49 348 159	\$ 52 627 228	\$ 56 044 757	\$ 59 456 127	\$ 63 010 130
Content Liabilities	\$ 8 445 045	\$ 8 172 128	\$ 9 023 456	\$ 9 540 166	\$ 9 905 300	\$ 9 991 088	\$ 9 760 052	\$ 9 952 708	\$ 10 095 626	\$ 10 199 428	\$ 10 234 511	\$ 10 225 433
Operating non-current liabilities:	\$ 8 445 045	\$ 8 172 128	\$ 9 023 456	\$ 9 540 166	\$ 9 905 300	\$ 9 991 088	\$ 9 760 052	\$ 9 952 708	\$ 10 095 626	\$ 10 199 428	\$ 10 234 511	\$ 10 225 433
Net operating Non-Current Assets	\$ 12 085 376	\$ 16 678 262	\$ 21 090 278	\$ 25 736 277	\$ 29 573 271	\$ 33 211 730	\$ 36 380 042	\$ 39 395 451	\$ 42 531 602	\$ 45 845 329	\$ 49 221 616	\$ 52 784 697
Invested Capital Core Business	\$ 11 348 428	\$ 15 731 921	\$ 19 828 471	\$ 24 287 075	\$ 27 965 412	\$ 31 437 964	\$ 34 419 354	\$ 37 292 505	\$ 40 322 699	\$ 43 524 747	\$ 46 775 667	\$ 50 195 877
Short-term investments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other non-current assets	\$ 901 030	\$ 1 898 421	\$ 1 871 693	\$ 1 871 112	\$ 1 868 655	\$ 1 891 226	\$ 1 954 020	\$ 2 027 807	\$ 2 088 750	\$ 2 133 059	\$ 2 187 175	\$ 2 250 907
Non-operating assets	\$ 901 030	\$ 1 898 421	\$ 1 871 693	\$ 1 871 112	\$ 1 868 655	\$ 1 891 226	\$ 1 954 020	\$ 2 027 807	\$ 2 088 750	\$ 2 133 059	\$ 2 187 175	\$ 2 250 907
Other non-current liabilities	\$ 129 231	\$ 980 799	\$ 1 000 415	\$ 1 020 423	\$ 1 040 831	\$ 1 061 648	\$ 1 072 264	\$ 1 082 987	\$ 1 093 817	\$ 1 104 755	\$ 1 115 803	\$ 1 126 961
Non-operating liabilities	\$ 129 231	\$ 980 799	\$ 1 000 415	\$ 1 020 423	\$ 1 040 831	\$ 1 061 648	\$ 1 072 264	\$ 1 082 987	\$ 1 093 817	\$ 1 104 755	\$ 1 115 803	\$ 1 126 961
Non-Operating Invested Capital	\$ 771 799	\$ 917 623	\$ 871 278	\$ 850 689	\$ 827 824	\$ 829 578	\$ 881 756	\$ 944 820	\$ 994 933	\$ 1 028 304	\$ 1 071 372	\$ 1 123 947
Invested Capital	\$ 12 120 227	\$ 16 649 544	\$ 20 699 749	\$ 25 137 763	\$ 28 793 236	\$ 32 267 542	\$ 35 301 110	\$ 38 237 325	\$ 41 317 632	\$ 44 553 051	\$ 47 847 039	\$ 51 319 824
Equity	\$ 5 238 765	\$ 7 807 885	\$ 10 807 676	\$ 14 669 538	\$ 19 513 083	\$ 25 578 094	\$ 33 416 975	\$ 43 095 679	\$ 54 574 966	\$ 67 664 976	\$ 82 365 959	\$ 98 789 715
Free Cash Flow	2018	2019E	2020F	2021F	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F
EBIT	\$ 1 605 226	\$ 3 012 007	\$ 4 231 016	\$ 5 010 264	\$ 6 327 013	\$ 7 940 735	\$ 10 169 362	\$ 12 320 185	\$ 14 638 740	\$ 16 791 913	\$ 18 957 341	\$ 21 271 753
Taxes	\$ 94 757	\$ 743 081	\$ 893 790	\$ 778 918	\$ 1 102 578	\$ 1 528 702	\$ 2 116 656	\$ 2 643 389	\$ 3 248 999	\$ 3 796 972	\$ 4 357 148	\$ 4 954 797
NOPLAT	\$ 1 510 469	\$ 2 268 926	\$ 3 337 227	\$ 4 231 346	\$ 5 224 435	\$ 6 412 032	\$ 8 052 706	\$ 9 676 796	\$ 11 389 741	\$ 12 994 941	\$ 14 600 194	\$ 16 316 957
Amortization	\$ 7 573 300	\$ 8 879 196	\$ 9 679 801	\$ 10 465 818	\$ 10 831 256	\$ 11 137 371	\$ 10 943 590	\$ 10 609 137	\$ 10 347 544	\$ 10 097 486	\$ 10 012 013	\$ 9 951 915
Depreciation	\$ 83 157	\$ 101 736	\$ 118 932	\$ 132 354	\$ 144 140	\$ 156 884	\$ 170 492	\$ 183 244	\$ 196 673	\$ 210 584	\$ 225 200	\$ 240 921
Operating Cash-Flow	\$ 9 166 926	\$ 11 249 858	\$ 13 135 959	\$ 14 829 518	\$ 16 199 831	\$ 17 706 287	\$ 19 166 788	\$ 20 469 177	\$ 21 933 959	\$ 23 303 011	\$ 24 837 407	\$ 26 509 792
CAPEX Investment	\$ (13 185 485)	\$ (13 300 901)	\$ (15 062 076)	\$ (15 760 882)	\$ (15 177 523)	\$ (15 018 503)	\$ (14 051 357)	\$ (14 000 446)	\$ (13 823 286)	\$ (13 725 599)	\$ (13 648 583)	\$ (13 746 837)
NWC Investment	\$ 213 776	\$ 503 173	\$ 21 686	\$ 187 396	\$ 158 657	\$ 165 907	\$ 186 921	\$ 142 259	\$ 105 957	\$ 111 679	\$ 125 368	\$ 142 870
Change in Liabilities	\$ 942 208	\$ (272 917)	\$ 851 328	\$ 516 710	\$ 365 133	\$ 85 789	\$ (231 036)	\$ 192 656	\$ 142 918	\$ 103 803	\$ 35 083	\$ (9 078)
Operating Free Cash-Flow	\$ (2 862 575)	\$ (1 820 787)	\$ (1 053 103)	\$ (227 258)	\$ 1 546 098	\$ 2 939 480	\$ 5 071 315	\$ 6 803 645	\$ 8 359 547	\$ 9 792 893	\$ 11 349 274	\$ 12 896 746
Non Operational Cash Flow	\$ 33 938	\$ 245 526	\$ 56 199	\$ 63 100	\$ 68 619	\$ 73 466	\$ 78 707	\$ 84 302	\$ 89 546	\$ 95 069	\$ 100 789	\$ 106 800
Invested Capital	\$ 771 799	\$ 917 623	\$ 871 278	\$ 850 689	\$ 827 824	\$ 829 578	\$ 881 756	\$ 944 820	\$ 994 933	\$ 1 028 304	\$ 1 071 372	\$ 1 123 947
Investment Cash Flow	\$ (254 736)	\$ (145 824)	\$ 46 345	\$ 20 589	\$ 22 865	\$ (1 754)	\$ (52 177)	\$ (63 064)	\$ (50 113)	\$ (33 371)	\$ (43 069)	\$ (52 574)
Non-Operating Free Cash Flow	\$ (220 798)	\$ 99 703	\$ 102 543	\$ 83 689	\$ 91 484	\$ 71 711	\$ 26 529	\$ 21 238	\$ 39 434	\$ 61 698	\$ 57 720	\$ 54 226
Free Cash-Flow	\$ (3 083 373)	\$ (1 721 085)	\$ (950 559)	\$ (143 569)	\$ 1 637 582	\$ 3 011 192	\$ 5 097 845	\$ 6 824 883	\$ 8 398 981	\$ 9 854 591	\$ 11 406 994	\$ 12 950 972

Disclosures and Disclaimers

Report Recommendations

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

This report was prepared by André Moura and Frederico Pontes, Master in Finance students of Nova School of Business and Economics ("Nova SBE"), within the context of the Field Lab – Equity Research.

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This report was supervised by a Nova SBE faculty member, acting merely in an academic capacity, who revised the valuation methodology and the financial model.

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CRACKING DOWN ON
PASSWORD SHARING

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Abstract

This report explores the impact that the adoption of an anti-password sharing system would have on Netflix's business. Password sharing is a problem that affects all SVoD platforms, since users access their services without paying their respective fees, which are the base of a SVoD business model. If a solution is developed, the number of potential subscribers of the video streaming market will rise, resulting in an opportunity for Netflix to increase its subscriber base and consequent revenues.

Keywords (up to four)

Netflix, Password, Sharing

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Appendix – Frederico Pontes (34027)**Cracking down on password sharing****Background information: sharing was caring**

Password sharing is an issue that affects streaming video on demand platforms, since there are potential users that are not subscribing to the service because they have free access to it. During the last years, Netflix and other SVoD platforms have not shown any kind of concern over creating a system that would reduce or deny password sharing, because it was seen as “terrific marketing vehicle for the next generation of viewers” (HBO President Richard Plepler, 2014) and as “something you have to learn to live with.” (Netflix CEO Reed Hastings, 2016). Nevertheless, as of December 2019, this “free marketing” is not as useful as in the past, since SVoD platforms (including Netflix) are well-known worldwide. In addition, Netflix’s number of subscribers in the United States is starting to slow down (the company has only added 2.1 million subscribers in the first three quarters of 2019, compared with the 3.4 and 4.1 million net additions from 2017 and 2018, respectively) and implementing an anti-password-sharing-system would possibly attract new subscribers. Moreover, Charter and Disney have managed to find together a user-friendly way of controlling password sharing. All these factors have led Netflix Chief Product Officer Greg Peters to announce in an interview for Netflix’s Q3 2019 earnings that the company “will see those consumer-friendly ways to push on the edges of that.”. However, due to the complexity of this theme, Greg Peters also added that Netflix is “continuing to monitor” the situation but will not take a decision immediately (“We have no plans to announce at this point in time, in terms of doing something differently”).

The Impacts of Password Sharing

When subscribers share their passwords, they are circumventing platforms’ business model which consequently causes a negative impact on their number of paid subscribers and

consequent revenues. Regarding the US OTT & Pay TV industry, companies are projected to lose an overall value of \$9.1 billion in 2019, due to piracy and password sharing, with that number growing 37% to \$12.5 billion in 2024 (Parks Associates, Inc., 2019). On average, 9% of customers share their passwords for streaming services, with younger users being the ones who share their accounts the most: 42% of generation Z users share their passwords for streaming services, while 35% of millennials, 19% of Generation X, 13% of Baby Boomers do the same (Magid, 2018). This means that, in 2018, there were approximately 12.5 million Netflix viewers that have not paid for the service (assuming there is only one illegitimate user per shared account). In terms of revenues, considering a global ARPU of \$10.31, if all the illegitimate viewers had an account, Netflix's revenues would have been \$1.39 billion higher than they actually were in 2018 (\$115.99 million higher per month).

Netflix's Problem

The main problem for Netflix is finding a system that would restrict the access from illegitimate users, while providing a positive experience to legitimate viewers. Netflix is looking for a login system that will allow it to achieve its goal, which is expanding its subscriber base, by "absorbing" the maximum of those illegitimate viewers, without alienating legitimate users.

Even with a perfect anti-password sharing system, Netflix would not be able to attract all those 12.5 million potential subscribers (and consequent annual \$1.39 billion in revenues), because some of them are not interested in paying for the service (while others would be interested, if they did not have free access to it). For example, younger illegitimate users are probably less interested in paying for the service, because they have less purchasing power and that is why they are the ones who share passwords the most. In conclusion, the illegitimate users do not represent a problem or a future revenues guarantee, but an opportunity to increase Netflix's paid subscriber base.

Possible Solutions

Piracy and password sharing affect not only Netflix, but also all OTT and paid TV services. These issues are being discussed by a coalition of over 30 entertainment companies and film studios called Alliance for Creativity and Entertainment (ACE) which goal is “protecting the legal marketplace for creative content and reducing piracy” (Smith, 2019). This group counts with companies like Netflix, Amazon, Disney, Warner Bros and its latest member, Charter. The group recognizes that, under each platform’s terms and culture, there is legitim password sharing in the industry that will not be affected by the coalition (the number of simultaneous streams included in the streaming plans). What the alliance is trying to fight is the illegitimate massive scale account sharing which involves piracy sites operators, apps and devices.

The already approached tactics involve two-factor authentication (text message codes, facial recognition, fingertip recognition), recurring passwords resets and geographical fencing. However, no platform has implemented any of these tactics yet, due to the probability of customer churn associated with them, since not all customers are willing to accept them.

Due to this, some information is left unclear: whether or not the companies will change their login system and when they are doing it, if that happens to be the case. However, in August 2019, Charter and Disney announced a partnership that will allow Spectrum (Charter’s broadband service) to continue delivering Disney content in exchange for working together to limit access to Disney streaming properties (Hulu, Disney+ and ESPN+) through unauthorized access and password sharing. Although there are no details of Charter’s solution, Charter has just joined the ACE group to jointly cut down on unauthorized password sharing. If Charter cracks the case, SVoD platforms could crack down on password sharing by

developing and implementing the solution by themselves, outsourcing or by entering in an agreement with programmers, distributors, or apps that would manage the operations.

Scenario Analysis

Taking all of this into consideration, a scenario in which Netflix and the rest of ACE's companies adopt an anti-password sharing system, without alienating legitimate subscribers must be considered. First of all, it is assumed that, in 2020, Netflix would implement the system in every region in which it operates. In addition, Netflix's market share would not change with the implementation of the solution since all ACE's companies would implement the password control system and companies that do not belong to the Alliance would follow their example. What would change is the number of SVoD subscribers and consequent penetration. In addition, the SVoD subscribers would not grow 9%, because not all password sharers would subscribe to video services. Instead, only 42% of the illegitimate subscribers would be absorbed in the first year (CordCutting.com, 2019), increasing the 2020's projected number of SVoD paid subscribers from 470.730 million (64% SVoD penetration, without the new system) to 488.354 million (67% SVoD penetration). Maintaining the same global market share (40%), Netflix's forecasted streaming subscribers would rise from 186.667 million paid subscribers to 193.655 million. In terms of revenues, this would be translated into a 2% growth in the first year (\$458.260 million). This investment would also bring benefits in the long run, improving SVoD's penetration during the future years. For example, comparing the forecasted SVoD penetration in 2024 and 2029 with the new ones, one can notice that they both would increase from 80% and 89% to 83% and 92%, respectively. Due to this, Netflix's projected paid subscribers would grow from 246.195 million and 319.296 million to 255.412 million and 331.250 million, in the respective years. Regarding the revenues, in 2024, they would receive a boost of \$1.255 billion, while, in 2029, they would rise \$1.775 billion (4% growth in both years).

The costs related with this investment will depend on Netflix's strategy. In this scenario, it is assumed that Netflix would outsource the implementation of the anti-password sharing system and then it would be Netflix's IT Team to manage the system. For that reason, Netflix would only pay for the professional training and implementation of the system and not for its management and updating. This would result in an extra \$1 billion investment in Technology and Development, in 2020, and in a general rise of these costs in the future.

Concluding the comparison between implementing the solution or not, in the long run (2029), Netflix's operating margin would increase approximately 1 p.p. (from 45.76% to 46.51%), due to the effect of economies of scale on a business that is generating more revenues. The company's ROIC would also increase 2 p.p. (from 35.54% to 37.45%), since this investment would make Netflix more efficient, in terms of operating results. Regarding the FCF, in case of adopting the system, the company would record positive cash flows from 2021 on (instead of 2022). In general, the FCF would be higher, leading to an enterprise value of \$167 billion, which is 7.7% higher than the base scenario's enterprise value. Finally, maintaining the same number of shares outstanding (438 251 billion), the share price would be \$353.99 (8.4% higher than the base scenario).

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Exhibit 1: Basic vs Anti-Password Scenario, Paid Memberships Comparison, 2020F-2029F

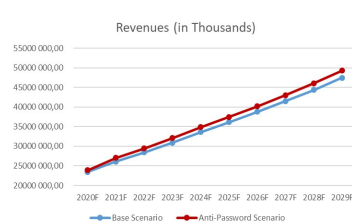


Exhibit 2: Basic vs Anti-Password Scenario, Revenues Comparison, 2020F-2029F

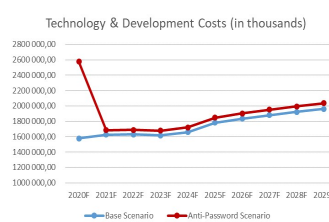


Exhibit 3: Basic vs Anti-Password Scenario, Technology and Development Costs, 2020F-2029F

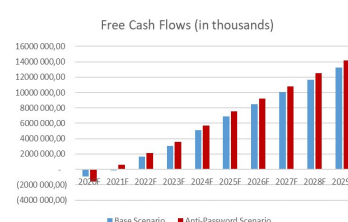


Exhibit 4: Basic vs Anti-Password Scenario, Free Cash Flows Comparison, 2020F-2029F