LISBON SCHOOL OF ECONOMICS & MANAGEMENT
UNIVERSIDADE DE LISBOA

MASTER OF SCIENCE IN FINANCE

MASTERS FINAL WORK PROJECT

EQUITY RESEARCH: SPOTIFY TECHNOLOGY S.A.

HELENA MARIA DE SOUSA E MOURA DUARTE

OCTOBER 2019

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SUPERVISOR:
PROFESSORA DOUTORA CLARA RAPOSO

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Abstract

This project consists on an Equity Research of Spotify Technology S.A. for the year end of 2020, according to ISEG's Master Final Work in Finance. This report follows the format suggested by the CFA Institute (Pinto, Henry, Robison, and Stowe, 2010), and it reflects the public information of the company published until 24th of May of 2019. Consequently, any event following this date was not considered in this analysis.

The motivation to evaluate a company like Spotify Technology S.A. came from personal interest, reflecting my fascination for this recent digital industry, which in my opinion is the future of music industry. Additionally, due to the use I give to Spotify's services and due to the challenge of analyzing such a company for a project of this kind.

The project starts with a description of the company, containing a brief introduction to its history, an analysis of its operating business segments, it also indicates the strategies for the next years and it is analyzed the organization of the company.

Following these, we conduct an analysis of the macroeconomic factors and industry developments. Additionally, an analysis of Spotify Technology S.A. competitive position within the media industry is provided.

Then, to obtain the price target, assumptions were studied and tested for the financial model. We used the Free Cash Flow to the Firm method, part of the Discounted Cash Flow model, as our valuation method. As we consider it the most appropriate method of valuation for Spotify Technology S.A. Additionally, further valuation methods were used to support our recommendation, although with some inconclusive results from these complementary methods, and several variables were stressed to analyze the impact on the price target.

Our target price for the year end of 2020 is of $145.21 per share and when compared to the closing price of $121.58/share at 23rd of May of 2019 represents an upside potential of 19.44%. Our recommendation stands for a HOLD recommendation with a high risk associated.

The main risks for this recommendation are growth rate of premium users, perpetual growth rate, unlevered beta, market risk premium, the risk-free rates and the overall WACC rate. Additionally, these variables are tested under sensitivity and Monte Carlo analysis to evaluate how changes in certain variables and assumptions would impact our final recommendation.

JEL classification: G10; G30; G32; G34; L82; E66.

Keywords: Equity Research; SPOT; Corporate Finance and Governance; Valuation; Discount Cash Flow; Music; Internet Media; Media; Macroeconomic Outlook.

Resumo

Este projeto consiste numa avaliação do preço por ação da Spotify Technology S.A. para o final do ano de 2020, de acordo com o Mestrado em Finance do ISEG. Este relatório segue o formato aconselhado pelo CFA Institute (Pinto, Henry, Robison e Stowe, 2010), e reflete a informação pública da empresa até 24 de maio de 2019. Consequentemente, qualquer evento após esta data não foi considerado nesta análise.

A motivação de avaliar uma empresa como a Spotify Technology, S.A. resultou do meu fascínio por esta recente indústria, que na minha opinião é o futuro da música. Além disso, o facto de ser uma utilizadora dos seus serviços e o facto de ser uma empresa desafiante para este tipo de projetos também teve peso na minha decisão.

O projeto começa com uma descrição da empresa, que contém uma breve introdução à sua história, uma análise dos seus segmentos operacionais, referindo também as estratégias da empresa para os próximos anos e contendo uma breve análise da organização da empresa.

De seguida, realizamos uma análise dos fatores macroeconômicos e dos desenvolvimentos da indústria esperados para os próximos anos. Além disso, é fornecida uma análise da posição competitiva da Spotify Technology, S.A. no setor em que opera.

De seguida, para obter o preço para o fim de 2020FY foram estudados e testados os pressupostos a assumir no modelo financeiro. O método Free Cash Flow to the Firm do modelo Discounted Cash Flow foi utilizado, pois é considerado por nós o método de avaliação mais adequado para avaliar esta empresa. Adicionalmente, outros métodos de avaliação foram analisados para suportar a nossa recomendação, embora alguns dos resultados foram inconclusivos, e vários pressupostos foram testados para analisar como é que alteações nos mesmos iriam impactar o preço para o fim de 2020FY.

O preço sugerido para o final do ano de 2020 é de $145.21 por ação e quando comparado com o preço de 23 de maio de 2019 representa um potencial de valorização de 19.44%. A nossa recomendação é de MANTER as ações, com um risco alto associado.

Os principais riscos associados à nossa recomendação são a taxa de crescimento de utilizadores premium, a taxa de crescimento em perpetuidade, as taxas de retorno sem rico, entre outras variáveis. Estas variáveis são testadas através de análises de sensibilidade e através da simulação de Monte Carlo para prever o impacto das mesmas na nossa recomendação.

Classificação JEL: G10; G30; G32; G34; L82; E66

Palavras-Chave: Equity Research; Spotify; Avaliação de Empresas; Modelo Discounted Cash Flow; Média e Entretenimento; Outlook Macroeconómico.

Acknowledgements

Writing this Master Final Work was a challenge, which in the end turned into a self-rewarding and a personal accomplishment. The unconditional support of my sisters, parents, friends, coworkers and mentor was fundamental during this journey, and I am grateful for their support.

First, I would like to thank my mentor, Professor Clara Raposo, for helping me throughout the preparation of this work even under her busy schedule. Additionally, I would like to thank all the teachers who I got the pleasure to get to know and to learn from during my master course and bachelor at ISEG.

To my family, your support and efforts to make this a happy journey and not that stressful was one of the most important things for this to come to an end. Specially, to my sisters who I have the pleasure to live with, but probably they have no clue of what my Master Final Work is all about.

To my friend Kika, who never gets a no as an answer and never allowed me to work on my thesis during the weekends spent in Lisbon. Thank you.

To my friend Sabina, which I had the pleasure to meet during this master's degree and I hope for life! Veni, vidi, vici!

To Valentina, for her support and for helping me to always see the cup half full.

To all my other friends that were always there when needed. Thank you!

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Spotify Technology S.A.

Hold

High risk

23rd May of 2019

SPOT: Soundtrack your life

(YE2020 Price Target of $ 145.21 (+19.44%); recommendation is to Hold)

1. Research Snapshot

HOLD[1] is our recommendation for Spotify Technology S.A. (SPOT) with a price target of $ 145.21 per share for FY2020, using the Free Cash Flow to the Firm method. This implies an upside potential of 19.44% from the 23rd May of 2019 price of $121.58 per share, with a high risk associated. Adjusted Present Value and Flow to Equity valuation methods support our Hold recommendation, with SPOT being undervalued.

Spotify presents a HIGH level of risk, since it was only listed recently, and its share price has been quite volatile. Additionally, the company operates in a new industry that is expected to have several growth opportunities, driven by smartphone penetration, podcast content, advertising revenues and improved record label contracts. Yet, this market is also highly competitive with some big players recently entering the industry; these players are already solid companies in other industries with solid brands and with strong revenues that can afford entering and investing in a very new industry.

Figure 1: Historical Share Price

Iconic Brand: SPOT was the first company to offer a music streaming service with the main goal of decreasing piracy. It is the leading streaming company in the industry being an iconic brand for music lovers. It is known for its user-friendly interface, global scale and unique recommendation features compared to its peers.

Growing Industry: Spotify operates in a new industry, which has been experiencing high growth rates over the years. This growth trend is expected to persist in the future, with the music streaming industry expected to increase around 18% CAGR from 2018-2022. In addition to this factor, revenues will also benefit from Spotify's audio-first strategy and from the higher number of ad-supported users that are expected to turn into premium users.

Operational costs and M&A: SPOT's main costs are driven from royalty payments to record labels and artists. The company has contracts with the Big Three record labels,

Table 1: Analyst's Risk Assessment

Low	Medium	High

Our risk assessment reflects the recent IPO from Spotify and the new market where Spotify operates, reflecting also the high dependency on user's growth.

Table 2: DCF Model Resutls

Model	Price-Target	Recommendation
FCFF	$ 145.21	Hold
APV	$ 145.21	Hold
FTE	$ 145.21	Hold

Source: Authors Estimations

Table 3: SPOT Market Data

Market Profile	
Closing price (May 23rd)	$121.58
52-week price range	$103.29-$185.90
Average daily volume	1.512M
Shares Outstanding (M)	180
Market Capitalization	$21852.79
Free Float	71.80%

Source: SPOT & Reuters

Table 4: Financial Highlights

(in Million €)	CAGR (2019F-2023F)	2018FY	2023F
Revenues	17.88%	5,259	13,162
Premium	18.26%	4,717	11,994
Ad-Supported	14.30%	542	1,168
Cost of Revenues	15.25%	3,906	8,743
Gross Profit	24.14%	1,353	4,419
EBITDA	61.61%	-11	1,248
Net Profit	65.89%	-78	832
Total Assets	17.83%	4,336	9,030
Total Equity	21.76%	2,094	4,772
Total Liabilities	14.08%	2,242	4,258

Source: Authors Estimations

[1] Appendix 10 contains the definition of a Hold recommendation.

with whom, over the years, Spotify has been able to improve the contract terms. Moreover, it is expected that SPOT will start to use its own studios to produce original content, which will enable Spotify to have lower costs and, additionally, through the company's latest acquisitions, audio-first strategy will enable Spotify to improve its podcast content, which is expected to attract more users and it is cheaper than music content.

Based on our projections, SPOT will achieve profitability in 2019F reflecting industry growth projections and lower growth rate of costs when compared to revenues. Consolidated revenues will grow at a CAGR of around 17.88% until 2023F, reaching 13,162 M€ in 2023F, with both of SPOT's segment growing at a CAGR of around 18% and 14% until 2023F, respectively for the Premium and Ad-Supported segment. The Premium segment will continue to represent around 91% of SPOT's consolidated revenues by 2023F.

2. Business Description

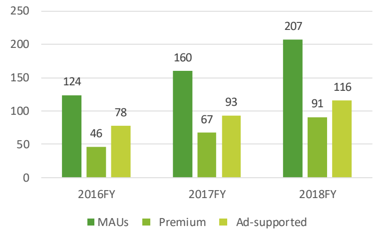
Spotify Technology S.A. (SPOT) is a Luxembourg-based public limited liability company that has its principal operational office in Stockholm, Sweden. Jointly with its subsidiaries, it provides an on-demand digital music, podcast and video streaming service, free to Ad-Supported users and paid through a subscription to Premium users. SPOT offers to its users restricted digital and DRM-protected content from a wide range of record labels and artists and offers the possibility of creating, sharing and editing playlists with other users.

Although the service was only launched in 2008, the company was founded by Mr. Daniel Ek, its CEO, and Mr. Martin Lorentzon in 2006 with the mission of releasing the potential of human creativity by providing artists the possibility to live of their art (decreasing piracy), and by giving to fans the opportunity to appreciate music and be inspired by it.

In April of 2018, SPOT went public through an unconventional IPO, offering shares for the first time without the banks' underwriting assistance, this was only possible because the Company did not need to raise additional capital and it had no need of a roadshow process as its business was and is well understood worldwide. Additionally, this process provided an equal access to buyers and sellers allowing the market to set the price of the shares, with the opening price being at $165.9 per share, which was higher than the reference price of $132 a share sated by NYSE.

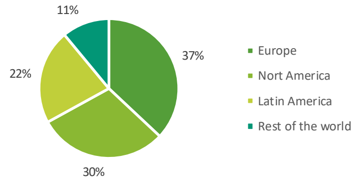
SPOT is the largest global music streaming subscription service, with a market share of 38% in 2017[2], providing access to 40 million tracks[3]. In 2018, SPOT had 207 million MAUs (+29% YOY), with 91 million being Premium MAUs and the remaining being Ad-Supported MAUs, Figure 2. The company is present in 79 countries and territories, with the largest region in terms of MAUs being Europe (37% in 2018), next North America with 30% and Latin America, that has been one of the fastest growing regions, represented 22% in 2018 (Figure 3).

Figure 2: MAUs per business segment



Source: Company's Annual Report

Figure 3: MAUs per region (2018FY)



Source: Company's Annual Report

[2] Determined by revenues and according to Spotify's 2018 Annual Report.
[3] 40 million tracks as of December 2018, according to company's website information Spotify has around 50 million tracks available as of August 2019.

SPOT's revenues have been growing consistently since the company was created (Figure 4), reaching €5.26B in FY18 (+29% YOY). The largest amount of revenues is generated in the United States, representing 38% of SPOT's revenues in 2018FY (Figure 5), although Europe represented the largest region in terms of MAUs.

Segments

SPOT is organized in two segments: Premium and Ad-Supported segment, Figure 6. The two segments are independent of each other but prosper together, typically a stronger engagement by the Ad-supported users drives their conversion into Premium users.

Premium Segment

SPOT's Premium service consists of unlimited online and offline high-quality streaming access to its catalog without any commercials, providing a commercial-free music experience. It can be accessed on any equipment such as computers, tablets and mobile devices; and can also be connected to cars, speakers, televisions, game consoles and smart watches.

The service can be sold directly to the end user through a variety of subscription plans (Standard, Family and Student Plan, which are cheaper than the normal plan) or through prepaid options, the different plans try to appeal to all users. SPOT also has partnerships with some companies, usually telecommunications companies, that package the subscription with their own services.

The Premium segment represented 90% of SPOT's revenues in 2018FY with a gross margin of 27%. This segment generates revenues through the sale of the Premium Service to premium subscribers, that reached 96 million subscribers (+35% YOY) in 2018FY. The Premium ARPU was of €4.81 in 2018FY and represented a decrease of 10% YOY due to the increase of the Family Plan subscriptions and to variations in foreign exchange rates, Figure 7.

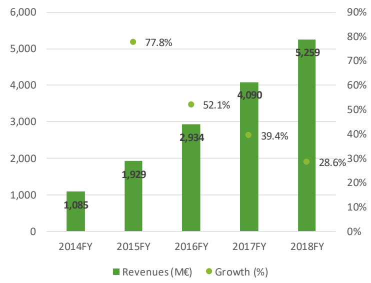
Ad-Supported Segment

SPOT's Ad-Supported service provides users limited access to its catalog, without any subscription fee. It represented 10% of SPOT's revenues in 2018FY, with a gross margin of 18%, generated from advertising impressions throughout the sale of display, audio and video advertising. The revenue depends on the number of hours of engagement of the Ad-Supported users and on SPOT's ability to provide creative and innovative adds that can improve the revenues of its partners.

In terms of MAUs, this segment achieved 116 million MAUs in 2018FY, representing an increase of 24.7% over the year, additionally the Ad-Supported MAUs represented around 56% of Spotify total MAUs.

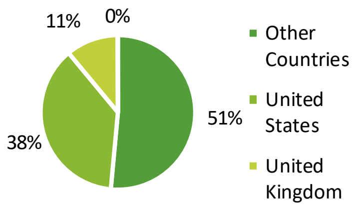
When considering total operating costs[4] (Figure 8), SPOT had 74% of its costs, in 2018FY, allocated to Costs of Revenue that consists mainly of royalty and distribution costs related to streaming content but also includes dispute charges, payment

Figure 4: Revenues



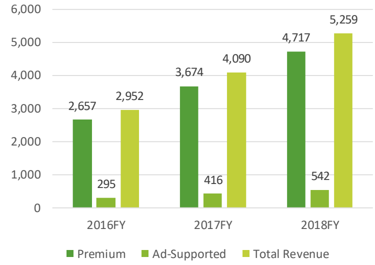
Source: Company's Annual Report

Figure 5: Revenues per region (2018FY)



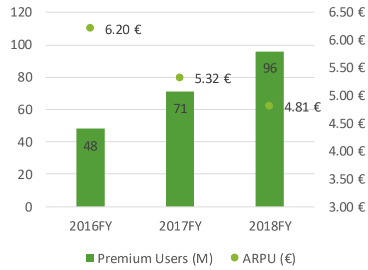
Source: Company's Annual Report

Figure 6: Revenues per business segmnet



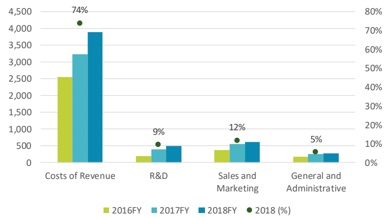
Source: Company's Annual Report

Figure 7: Premium Subscribers and ARPU



Source: Company's Annual Report

Figure 8: Operating Costs



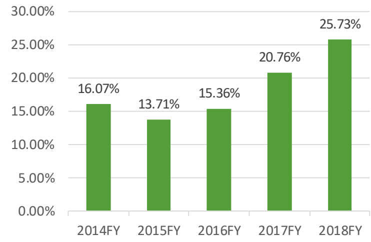
Source: Company's Annual Report

[4] Operating Costs include share-based payments to employees, even if they were not yet used by the employees, this is even if they do not represent an cash outflow to the Company.

transaction fees, discounted trial costs and streaming delivery costs. The remaining costs are distributed between Sales and Marketing (12%), R&D (9%) and General and Administrative (5%). Although the Costs of Revenues have been increasing, SPOT's Gross Margin has also been increasing in the last three years reaching 26% in 2018, (Figure 9).

Additionally, SPOT as of 31st of December of 2018 owned 9% of the largest music streaming platform in China, Tencent Music Entertainment that has around 700 million MAUs of which around 13% are Premium MAUs.

Figure 9: Gross Margin



Source: Company's Annual Report

Company Strategies (Figure 10):

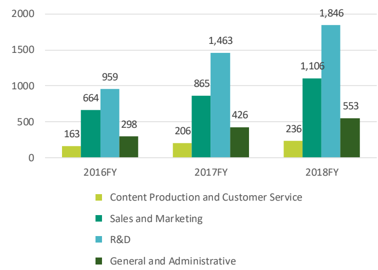
- Fan-First Strategy and R&D: consists of continuously improving the fan experience by offering artists the best tools to build their fan base to improve their relationship with fans and by creating personal playlists using the data from a specific user to create a personalized playlist for that specific user. The aim is: if the fan experience is better, then the engagement of the user will increase.

  This strategy is only possible if SPOT keeps investing in R&D, since it is the data taken from its users that enables the company to provide a unique service to each user. SPOT, as of December 2018, had on average around 3,651 employees (Figure 11) with 1,846 working only in the R&D department (+26% YOY) that develop SPOT's platform, mobile and desktop application, service and new advertising products.
- Audio-First Strategy: SPOT's CEO believes that the future of the company is not just music, but audio and the main driver will be podcasting. Being already the second largest podcasting platform SPOT started the acquisition process of Gimlet Media INC., an independent producer of podcast content, and Anchor, the leading company of podcast creation, publishing and monetization services. The strategic goal is to become the leading platform for podcast creators and the premier producer of podcasts, taking over the radio industry. Moreover, costs from podcasting are cheaper than the costs generated from music streaming.
- Advertising Strategy: strategic goal of increasing advertising revenue, offering advertisers supplementary ways to purchase advertising and increasing the advertising products portfolio. Belief that if the advertising products are based in music and relevant to the users then they will improve the users experience and generate greater revenues to advertisers.
- Universal Integration: strategic goal of integrating SPOT in all possible ecosystems making it easily accessible and usable in all devices. To achieve this goal the company is making deals with suppliers of these ecosystems, like car and smartphones manufactures. Recently, August 2018, SPOT started a partnership with Samsung being their go-to music streaming service provider, with the App being pre-installed on all new Samsung mobile devices.

Figure 10: SPOT Strategies

Source: Authors estimations

Figure 11: Number of employees per department



Source: Company's Annual Report

- Spotify Studios: strategic goal of increasing the production of original content in form of singles and podcasts inside the company with the aim of decreasing license agrement costs, dispute charges and royalty and distribution costs.
- International expansion: SPOT intends to keep expanding its services to new markets, just in the last quarter of 2018FY SPOT went from being present in 65 to 78 markets and in the beginning of 2019 entered the Indian market. However, as international expansion means an increase in the number of users it can also mean a decrease in ARPU, as Spotify will be more opened to exchange rate fluctuations and as the remaining markets where the service is not available are mainly emergent markets.

Shareholder Structure

As of December of 2018, the market capitalization of SPOT amounted to $20.53B with 180,856,081 ordinary shares outstanding. SPOT is listed on New York Stock Exchange (NYSE) and 21.63% of the shares are held by inside owners.

The largest shareholder is Mr. Daniel EK, SPOT's CEO and co-founder, with an ownership position of 19.8%[5]. The second largest shareholder with a 12.7%[5] ownership position is Mr. Martin Lorentzon, co-founder of SPOT. Baillie Gifford & Co, an investment management firm, is the third largest shareholder with 9.7%. The remaining shareholders that own more than 5% are Tiger Global, an America hedge fund, Entities affiliated with TCV and Tencent (Table 5).

SPOT announced on November 2018, a program to repurchase up to $1B of its ordinary shares, that will expire in April 2021, having already repurchased 687,271 shares at an average cost of $127.01 per share giving a total of $87.3 million already spent on the program.

Table 5: Ownership Structure

Ownership Structure	Ordinary Shares Number	%
Daniel Ek	36,827,394	19.80%
Martin Lorentzon	23,207,776	12.70%
Baillie Gifford & Co.	17,565,904	9.70%
Tiger Global	12,804,491	7.10%
Tencent	16,580,360	9.20%
Entities Affiliated with TCV	9,616,720	5.30%

Source: Company's Annual Report

3. Management and Corporate Governance

Mr. Daniel Ek is SPOT's CEO and Chairman of the Board since 2008 and is one of its co-founders. Prior to SPOT he founded an online advertising company, Advertigo that was acquired by TradeDoubler, held several senior roles at Tradera which was later acquired by Ebay and served as CFO at Stardoll. The other co-founder is Mr. Martin Lorentzon and he is a member of the board of directors since 2008. The company's CFO is Mr. Barry McCarthy, that served prior to SPOT as a member of the board of directors of several private companies like Pandora, Eventbrite and Chegg and served as the CFO of Netflix from 1999 to 2010.

SPOT follows an Anglo-Saxon governance model composed by a General Shareholders' Meeting, Board of Directors and 2 committees delegated by the Board of Directors.

General Shareholders' Meeting: constituted by the shareholders, who elect and dismiss the members of the Board of Directors, the Audit Committee and Remuneration Committee and make decisions about the organization according to the law, such as dividend payments, selection of auditors and others.

[5] Directly or indirectly.

Board of Directors: composed by 9 seats, 3 of them by independent directors, which are elected by the company's stockholders (Table 6). Is responsible for the promotion of the long-term value and health of the company in the best interests of its stockholders.

Audit Committee: has the purpose to assure the integrity of the company's financial statements and to internally audit them. It shall be composed of at least three independent directors that will be elected at least annually by decision of the Board. Mr. Thomas Staggsll serves as Chair of the Audit Committee, as of December 2018, and the other two members are Mr. Christopher Marshall and Ms. Padmasree Warrior.

Remuneration Committee: responsible of all the matters related to compensation of SPOT's executive officers and must provide guidance in compensation matters as it considers appropriate. The committee shall meet at least once annually and because SPOT is a foreign private issuer under SEC rules the members do not need to be independent. The Remuneration Committee has 3 members, the Chair is Mr. Christopher Marshall and the other two members are Mr. Martin Lorentzon and Mr. Shishir Mehrotra.

Under the NYSE rules, domestic companies are required to have a compensation committee and a nominating and corporate governance committee composed of only independent directors. But because SPOT is a foreign private issuer, the company is exempt from these requirements not having a nominating and corporate governance committee.

Table 6: Board of Directors

Name	Position
Daniel Ek	Co-Founder, CEO, Chairman and Director
Martin Lorentzon	Co-Founder and Director
Christopher Marshall	Independent Director
Shishir Mehrotra	Independent Director
Heidi O'Neill	Director
Ted Sarandos	Director
Thomas Stagss	Independent Director
Cristina Stenbeck	Director
Paadmasree Warrior	Independent Director

Source: Company's Annual Report

Voting Power Concentration -Table 7

Given the fact that voting power is concentrated between Mr. Daniel Ek and Mr. Martin Lorentzon with respectively 34.6% and 43.3% of the total voting power (together they have 77.9% of the consolidated voting power). The two co-founders have substantial control over the business, if they act together, they can control all the matters submitted to shareholders approval and it can affect adversely the price of the ordinary shares.

Table 7: Voting Power

Voting Power	
Name	**%**
Daniel Ek	34.60%
Martin Lorentzon	43.30%
Baillie Gifford &Co.	3.20%
Tiger Global	2.30%
Entities affiliated with TCV	1.80%

Source: Company's Annual Report

Social Responsibility

Since 2017, SPOT started using the data collected on energy use, waste management, business travel and other aspects with environmental impact from all its offices. The aim is to improve offices efficiency and management. SPOT's main office runs on renewable energy and provides access to real time energy data.

The company started a Green IT initiative that focuses on reusing rather than disposing old electronic devices, having collected around 700 units, data only from US and Sweden, of electronic equipment that reached the end of their lifecycle at SPOT with 27% of these being recycled and reused by other companies and individuals outside the company and the remaining being scrapped with the material being recycled by the collecting companies.

4. Industry Overview and Competitive Positioning

Global Economic Outlook

After the global cyclical improvement lived since 2016, the global economy is still expected to continue to expand although its pace of growth will be slower than the level registered in the last years. In 2018 the rate of growth was 3.7%, with the global growth indicator being the GDP, Figure 12.

According to the Global Economic Outlook, in 2019 the global economy is expected to grow at a pace of 3.3%, which represents a deterioration when compared to the last nine years. This reduction in growth reflects a moment of high uncertainty due to negative effects of tariff increases enacted in the United States and China, new automobile fuel emission standards introduced in Germany, concerns about sovereign and financial risks in Italy that weighed on domestic demand. This projection can still deteriorate as a result of an increase of trade tensions, a possible "no-deal" withdrawal of the United Kingdom from the European Union and a superior slowdown of China economy than the one expected.

Euro area growth is expected to be 1.6% in 2019 (1.8% and 2.4% in 2018 and 2017 respectively), having slowed down reflecting: Germany's soft private consumption, weak industrial production and subdues foreign demand; Italy’s weak domestic demand and higher borrowing costs due to elevated sovereign yields; and the negative impact of street protests in France, Figure 13.

United States is projected to slow down to 2.5% in 2019 and furthermore in 2020 to grow at a pace of 1.8%, while in 2018 and 2017 the US economy grew by 2.9% and 2.2%, respectively. The slowdown in 2019 and 2020 reflects the unwinding of fiscal stimulus and the fact that temporarily federal funds rate will exceed the neutral interest rate, Figure 14.

Japan growth slowed to 0.9% in 2018 but is expected to grow by 1.1% in 2019 reflecting the additional fiscal support to the economy during 2019 with the use of measures to mitigate the effects of panned consumption tax rate increase, Figure 15.

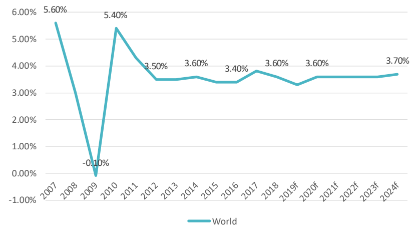
The emerging markets economic growth is expected to deteriorate from 4.6% in 2018 to 4.5% in 2019, however it is projected to improve in 2020 to a 4.9% economic growth rate. Latin America growth is projected to recover over the next 2 years, with a 2.2% growth in 2019 reflecting the softening global trade growth and tighter external financing conditions, Figure 16.

Industry Overview

SPOT operates as a music streaming service provider in the Digital Music sub-industry, that is part of the Music industry, which is inserted in the Media and Entertainment (M&E) sector. The music industry is living the most fast-paced and innovative chapter of all time, being a global industry and increasingly digital nowadays.

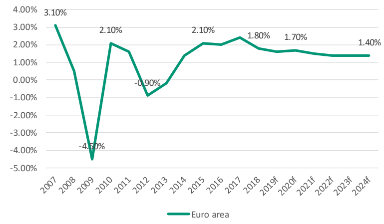
From 2001 until 2014, Global Music Revenues (Figure 17) decreased mainly reflecting the rise of internet, which provided users the opportunity to listen music illegally for free, therefore increasing piracy. Music listeners started to use illegal ways to listen the music they wanted wherever and at any time they wanted without artists receiving any type of remuneration for their work.

Figure 12: World Real GDP growth (%)



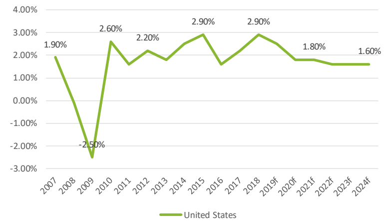
Source: IMF, 2019

Figure 13: Euro Area Real GDP growth (%)



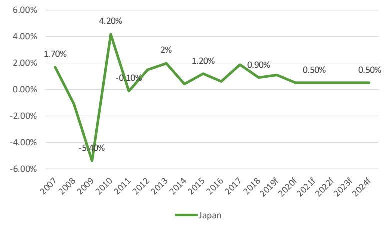
Source: IMF, 2019

Figure 14: United States Real GDP growth (%)



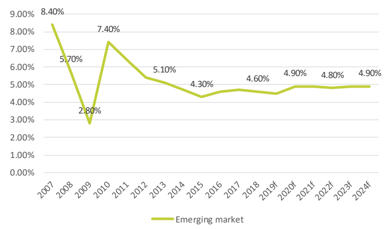
Source: IMF, 2019

Figure 15: Japan Real GDP growth (%)



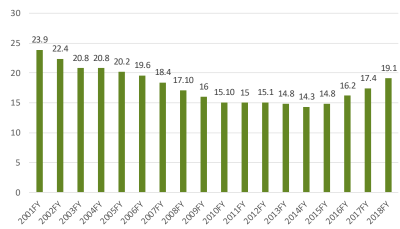
Source: IMF, 2019

Figure 16: Emerging Markets Real GDP growth (%)



Source: IMF, 2019

Figure 17: Music Revenues (US$ billions)



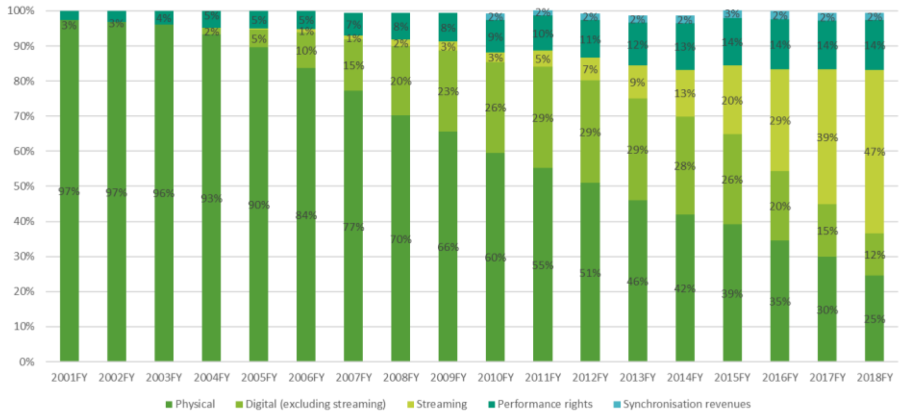
Source: GMR 2019

However, in 2015 this trend changed with the rise of music streaming services, allowing users to have legal access to music for free, which from that date on became the main driver of this change. Music streaming services are considered the future of music industry.

Over the last four years the music streaming services have been growing all around the world with Latin America leading this growth (+39.3% YOY), with Brazil being the country that more contributed to this leading position (+38.5% YOY). The second largest region was North America with an increase of 33.4% over the year, with the driver of this growth being paid streaming. Asia and Australia registered an increase of 26.8% over 2018, also mainly driven by paid audio streaming (+29.5% YOY). Although, Europe was the region with the slowest growth in 2018, it still registered a significant growth of around 29.2% in paid streaming over the year.

Since 2015, digital music is the sector of the music industry that generates more revenue amounting to a total of 11.2 US$ billions in 2018 (58.9% of the global revenue), more 21.1% YOY, of which 8.9 US$ billions came from streaming revenues and the remaining from digital music revenue excluding streaming, Figure 18.

Figure 18: Global Music Industry Revenues by segment (US$ billions)



Source: GMR, 2019

Additionally, from 2017 onwards the streaming revenue represented the largest segment of the music industry revenues, representing around 47% of the total revenues of the industry.

In 2018, it was experienced the highest increase in the global recorded music market, since 1997, increasing by 9.7% to 19.1 US$ billions, with 37% of the total revenue being generated from paid music streaming and 10% from ad-supported streams, Table 8. Downloads & other digital services were the second largest segment in terms of revenues in 2018, however the importance of this segment has been decreasing since there exists free legal options.

The increase in digital revenue, which includes streaming, was mainly driven by the increase in the streaming sector that grew 34% over the year, with in 38 markets representing more than 50% of music revenues. In terms of the streaming sector, the paid audio streaming grew in almost all markets increasing 32.9% over 2018.

According to PWC's Global Entertainment & Media Outlook 2018-2022 the digital music streaming revenues are expected to increase at a 18% GACR rate between 2018 to 2022.

Table 8: Global Music Industry Revenues by segment in 2018FY (US$ billions)

Global Recorded Music Industry Revenues by Segment 2018	
Synchronisation Revenues	2%
Performance rights	14%
Downloads & other digital	12%
Ad-supported streams	10%
Subscription audio streams	37%
Physical	25%

Source: GMR, 2019

Regulation

Companies face a huge amount of strict regulations globally, with the main activists of this industry aiming to value music in a fair way in all its form, so a balanced and fair digital marketplace within the industry can be ensured. These regulations are always evolving and changing from market to market and from business segment to business segment, they include copyrights, encryption, privacy, payments, content limitations, network, data protection and consumer laws.

Complying with these regulations is difficult as it is costly to companies to satisfy and to keep up to all these changes.

Demand

In 2017, according to data from Statista around 84% of the consumers of music streaming service in the world were users with ages between 18 to 44 years old, Figure 19. Users with ages between 25-34 years old represented 39.2% of the total number of users in the world. The penetration in the music streaming service in 2018 was around 13.9%, which represents an increase of 1.3% YOY.

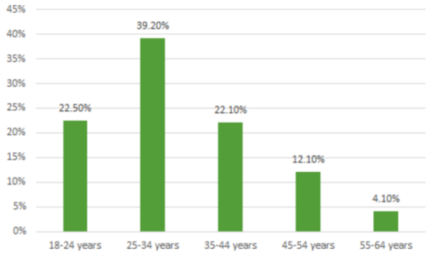
According to Deloitte Digital Media Trends Survey 13th edition, the music streaming service is considered as a "must-have" for the younger users, with around 60% of Generation Z and millennials subscribing to a music service.

The demand for digital content is changing, with consumers wanting to have access to a vast library at any time and any place being willing to pay for premium services rather than using the free services offered and with consumers wanting a personalized service. The main drivers of music streaming consumption are the availability of smartphone data, with consumers expecting constant connectivity; music storage bears no costs and is not required; and, the proliferation of devices.

Although the overall increase in demand in the M&E industry, it is possible that we are entering in a phase of "consumer subscription fatigue". This fatigue is a consequence of the existence of too many subscriptions services, both audio and video, and too many payments to track and justify.

Overall, consumers are increasingly in control because of the proliferation of mobile devices, of the faster and easier wireless connectivity and as alternative digital media platforms that offer similar services appear.

Figure 19: Users by age in 2017



Source: Statista

Supply

Music streaming service is supplied by software suppliers and directly or indirectly by artists, indirectly when artists use a label to represent them. Labels and artists look with good eyes to the music streaming service, since this was the main driver of decrease of illegal downloading and helps artists to share their content globally, reaching more audience.

Record Labels and Artists: There are three big record labels, known as the "Big Three" that are composed by Sony BMG, Universal Music Group and Warner Music Group. The Big Three have control over music content (in terms of distribution and packing price to end consumer). According to Music Business Worldwide in 2018, the Big Three were responsible for 70% of the revenues generated in the music industry with the

Table 9: Record Label's Market Share

Record Label Market Share	2015	2016	2017	2018
Universal Music	30%	29%	30%	31%
Sony Music	21%	23%	22%	21%
Warner Music	17%	17%	18%	18%
Big 3	68%	69%	70%	70%
Independents	32%	31%	30%	30%
Total	100%	100%	100%	100%

Source: Music Business Worldwide

remaining going to independent labels, Table 9. The Big Three generated around 13,143 M$ of revenues in 2018, with 52.71% of this amount being generated from streaming services, Figure 20.

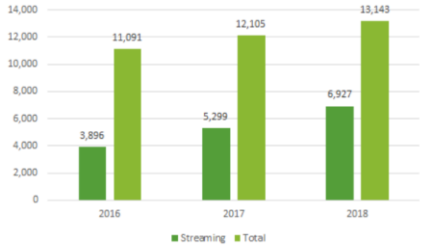
Record labels and artists sell, through royalties, the right to stream their music. In general, royalties are calculated using negotiated rates in the license agreements. These rates depend if the service is an advertising or a subscription service, on the revenue recognized, on the type of content streamed and on the country where it is streamed, on the size of the user base, on the ratio of ad-supported users to premium users, on any discounts applied and others.

Platform Suppliers: The music streaming service is dependent on platforms to reach its users; these services are mainly used in mobile devices. The suppliers of these type of platforms have recently entered the music streaming industry, therefore it is necessary that the companies who provide these platforms allow SPOT to use them, so it can reach its users.

Two of SPOT largest competitors have the advantage of providing these platforms (Google Play and Apple Music), which gives them more control of how their service is displayed to consumers. Additionally, if these companies enter in a dispute with SPOT, they can disable SPOT's service on their platforms.

SPOT already accused Apple of not approving an update on SPOT's app to contain the competition to its own service, Apple Music.

Figure 20: Big Three Revenues



Source: Music Business Worldwide

Competitive Positioning

SPOT operates in a new industry that is continuously evolving, with current companies having to adapt constantly to innovations and with customers expecting always more from this type of service.

Based on the industry and the markets where SPOT operates, its main competitors[6] are Pandora, Sirius, Apple Music, Google Play Music, YouTube, Amazon Music Unlimited and Viacom, further information on peers Appendix 14.

To assess SPOT's strategic position, it is presented the SWOT and Porter's Five Forces analysis considering the industry and markets where the Company operates.

SWOT Analysis[7]:

- Strengths:

Brand Recognition: SPOT was the first company to offer the service of on-demand music streaming, this service is available since 2008 when the Company was launched. Additionally, it is one of the companies with the higher number of MAUs, which makes it highly recognized within the industry.

User-friendly service: SPOT is known for its user-friendly service as it is easy and intuitive to navigate in the platform, with users finding the platform one of the bests in the market.

Competitive Product: In comparison with its peers, SPOT offers a similar service with similar prices. Additionally, SPOT is one of the few companies in the industry that offers

[6] Not all these competitors operate only in the music streaming sector. Apple, Google (which has Google Music and Youtube), Amazon generate revenues from other sources.
[7] In the Appendix 17, you can find the SWOT Analysis chart.

a possibility of having a free service, which has some limitations when compared to the premium one. Most of the other companies only offer a free few months trial program.

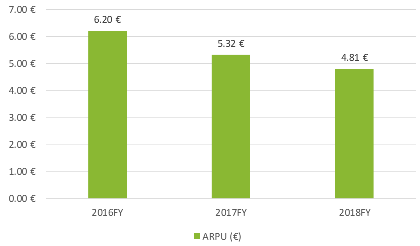
Content and Market diversity: SPOT service is available in 79 countries and territories and the Company through its strategy pretends to increase this number in the future. In terms of content, SPOT was the service that offered the largest number of tracks in 2018, around 40 million of tracks that are increasing constantly (more than 50 M already in 2019).

Data: Data is probably one of the most critical sources of information about consumers in this industry. The right use of Data enables SPOT to deliver the right content, advertising and other experiences to the right users making their experience unforgettable. Also, it is one of the most important characteristics that makes an ad-supported user change into a premium user.

- Weaknesses:

Decreasing ARPU: The company has seen its premium ARPU decreasing from 6.2€ in 2016 to 4.81€ in 2018 (Figure 21), which represents a decrease of 22%, while the industry ARPU has been increasing. This decrease is a consequence of the Family and Student Plan launched by SPOT to attract more premium users and of the free service offered for unlimited time. ARPU can also further decrease due to the entrance in emergent markets.

Figure 21: Historical ARPU



Source: Annual Report

Internet connectivity necessity: The ad-supported service offered by SPOT is always dependent on internet connectivity, although it is not expected that internet will disappear this can represent a risk since if internet is down the users cannot use the service. Additionally, the premium service is also dependent on internet connection however not totally.

Low revenues compared to competitors: Overall, its competitors generate higher revenues since they have other sources of revenues besides music streaming services, which can be harmful to SPOT as its competitors have higher cash flows that allow them to invest more and to incur in higher costs while SPOT has to be more cautious.

- Opportunities:

Growing Industry: The streaming service is the future of the music industry and if SPOT plays the right cards it has great potential of growth in the industry. Specially in the ad-supported business segment, where SPOT can improve exponentially the revenues it generates from this segment as advertisement companies are becoming more interest in digital advertisement.

Ecosystems: Possibility of offering the service in different ecosystems, although SPOT already has some partnerships with car manufactures and more recently with Samsung it still has a lot of possibilities to increase the number of ecosystems where the service is available.

Business and Market Growth: Mr. Daniel Ek sees the future of SPOT passing by further internationalization of the company and by offering a radio service and improving its podcast service, since these two platforms have a big audience all around the world. Additionally, SPOT can also take advantage of the contracts with record labels and artist to start its own festivals adding other sources of revenues to the Company.

Mergers and Acquisitions: The industry has been experiencing a lot of mergers and it is expected to continue. SPOT can take advantages from this to increase its content availability and to enter in new platforms.

Internet improvements: Music streaming ultimately depends on the access to internet, even if the premium service is not always dependent on it. The fifth generation (5G) wide-are wireless networks will be launched already in 2019 by some operators. Overall, this improvement in internet connectivity will enable SPOT to deliver a better service.

- Threats:

Artists/Labels hostility: SPOT has agreements with the Big Three, however these agreements can get worse, becoming more costly to Spotify and the labels can start to benefit its competitors offering them cheaper prices. Additionally, SPOT also had in the past some problems with some artists that refused to share their music in SPOT's platform. Therefore, SPOT should keep working on improving its relationships with the labels and artists as its business depends 100% on them.

Low Profitability Industry: The music streaming industry is an industry where generating profit is difficult, since SPOT entered operations it was never profitable mainly due to the high costs in terms of royalties. Additionally, SPOT big competitors, Apple Music and Google Play, have several sources of revenues so even if they do not generate profit in this business segment, they can still use the cash flow from their other business segments to invest in this one.

Regulations: As regulations are complex and change from country to country, companies operating in this industry must be careful to respect them, so they do not incur in extraordinary costs. As Spotify operates in different markets, different tariffs are applied which can lead to overpayment or underpayment of royalties, that can lead to breaches in contracts with artist and labels. Moreover, SPOT deals with user's data policy that is increasingly becoming more regulated and if consumers feel that their data is being used in a harmful way this can be the end of SPOT.

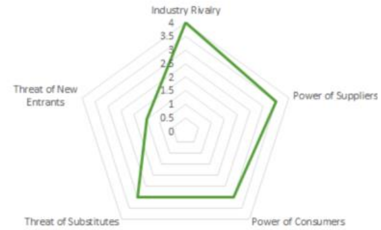
Exchange rate volatility: Although its results from operations are reported in euros, SPOT generates revenues internationally and it also has expenses in other currencies other than euros, such as US dollars, due to contracts with record labels (royalties). Therefore, drastic changes in exchange rates may impact expenses as well as revenues and, consequently affect the operating results and margins reported by the Company.[8]

Porter's Five Forces (Figure 22):

- Industry Rivalry: High

The rivalry among the industry is high with some of the biggest technological companies, like Apple, Google and Amazon, entering recently in this industry by launching their own music streaming service, Apple Music, Google Play and Amazon Music. These companies are strong brands with loyal customers and have other sources of revenues when compared to SPOT, which gives them leverage to invest in the business as they have other sources of cash flow.

Figure 22: Porter's Five Forces Matrix



Source: Authors Estimations

[8] SPOT has limited hedging strategies to limit is exchange rate exposure, although these contracts are not expected to entirely eliminate its exposure.

- Power of Suppliers: Medium - Strong

The suppliers of content, the Record Labels and artists, have a considerable power over the companies since they already get around 70% of the revenues and since they can start exclusivity contracts, working only with one or two companies them with all of them. On the other hand, the music streaming is increasingly more important in the music industry so record labels rely every year more heavily on music streaming services to generate revenues.

- Threat of Substitutes: Medium

The threat of being substituted is medium, Spotify already has competitors that offer the same service at similar prices. Additionally, Spotify is the only company offering a free service, which will always attract users that do not want to pay for a streaming service. The free service enables Spotify to gather data from user tastes and improve the experience to each user, making Spotify users less willing to change to another service.

- Power of Buyers: Medium

Although the industry has a lot of players SPOT offers an adaptable service to all its type of users, if a user does not want to pay for the service he can use the free service with its limitations and if a user wants a better service then he can use the premium service which has several advantages when compared to the free one. However, consumers face low costs of switching services, since from one month to another they can cancel their subscription.

- Threat of New Entrants: Low

The industry is quite saturated and the big players behind this kind of services might discourage new entrants to launch their own product, since they take part of the distribution process. Moreover, entry costs are elevated with record labels taking around of 70% of the revenues as royalties.

5. Investment Summary

With a target price of $145.21 per share and an upside potential of 19.44% for 2020YE, using the Discounted Cash Flow (DCF) Model through the Free Cash Flow to the Firm (FCFF) method, we issue a HOLD[9] recommendation in comparison to May 23rd of 2019 price per share of $121.58, with high risk. Flow to Equity and Adjusted Present Value methods support this recommendation with both achieving the same target price per share. Therefore, the three methods indicate that SPOT is currently undervalued.

Table 10: Price – Taregt (2020) Summary

Price - Target (2020)	
Intrinsic Value of Equity	**23,411**
# of share	179.84
Price- Target (€)	**130.18 €**
EUR/USD (23/05/2019)	1.12
Price- Target ($)	**$ 145.21**
Closing Price May 23rd ($)	$ 121.58
Upside Potential	19.44%

Units: Millions of €

Source: Authors Estimations

The key drivers of our recommendation and catalysts are:

1) Stepping up Revenues: SPOT operates in a new industry that has been experiencing high growth rates and it is projected that it will keep this trend in the next years. Additionally, the company's audio-first and international strategy will enable the company to increase its number of users due to more users looking for podcasting content, due to the entrance in new markets and also due to the new partnership with Samsung. Moreover, SPOT projects that

[9] Appendix 10 has a definition of a Hold Recommendation.

a higher number of ad-supported users will turn into premium users due to the unique experience that SPOT provides to each user.

2) Mergers and Acquisitions: In the beginning of 2019 SPOT acquired Gimlet Media Inc., which is an independent producer of podcast content and Anchor FM Inc. that is a software company that enables users to create and distribute their own podcasts. These acquisitions are in line with Spotify's audio first strategy, with the company believing that its future passes through podcast and through in-house production of content.

   In the future, we can expect that if Spotify finds adequate companies and if it has a good liquidity it will keep on acquiring similar business. According to our evaluation period estimations, Spotify will have cash and cash equivalents of around 737 M€ in 2019FY which will increase to 4,189 M€ in 2023FY (+ 54.39% CAGR).

3) Improving Operational costs: SPOT main costs are driven from the royalties paid to record labels and artist. For now, Spotify has contacts with the Big Three record labels, which has allowed the company to improve its contract terms over the last years, improving gross margins. Moreover, it is expected that SPOT will start to use its own studios for artist to produce content, which will decrease costs in the future, special in terms of podcast.

Valuation Methods

In order to evaluate SPOT, absolute valuation models and a relative valuation model[10] were used to estimate the intrinsic value on an eight-year horizon. The absolute valuation model used was the Discounted Cash Flow through the following methods Free Cash Flow to the Firm (FFCF), Adjusted Present Value (APV) and Flow to Equity (FTE). Additionally, the market multiples approach was used as a relative valuation model. Although, conclusions on the price target are derived from the FFCF method.

The Dividend Discount Model, another absolute valuation model, was not consider since the Company has never paid dividends and it is not predicted that it will pay them soon.

Risks to Price Target

Investors should be aware of the impact that the perpetuity growth rate, the unlevered beta, market risk premium and the normalization period growth rate have on our price target estimate. Additionally, the WACC considered both in the perpetuity and under our valuation and normalization period also has a big impact on the price target, moreover the growth of users is also one of the variables with the largest impact.

It should be noticed that we assumed that Spotify will not repurchase more shares than the amount repurchased until the first quarter of 2019 or acquire any companies than the expected in the 2018's Annual Report, also the company will not issue new debt, keeping its 2018s debt levels.

[10] Definition of these two methods can be seen on Appendix 10.

6. Valuation

This section will explain the more complex assumptions and the ones driven from industry and competitive positioning analysis.

It is important to notice, that we consider the Valuation Period from 2019 to 2023. Additionally, we consider a Normalization Period from 2024 to 2027, since the industry where Spotify operates is new and since cash flows obtained from the Valuation Period were not normalized and therefore the valuation would be misleading. After 2027 we consider the Perpetual Period.

Revenues

The revenues projections for the Valuation Period are made by considering both Spotify's business segments individually (Premium and Ad-Supported Segment).

Premium segment revenues result from the average number of premium subscribers'[11] times ARPU over the 12 months of the year.

For ARPU projections (Figure 23), Spotify is one of the companies in this industry with the lowest ARPU mainly due to its discount subscription programs and due to fluctuations on exchange rates. Additionally, the entrance in emerging markets can lead to the decrease of the ARPU as these markets have lower disposable income. However, we think Spotify ARPU will move according to the industry ARPU movements. Overall, we expect ARPU to decrease 1.2% in 2019F, mainly reflecting the entrance in the Indian market, and to increase by 0.1%, 0.4%, 0.5% and 0.5% respectively in 2020F, 2021F,2022F and 2023F.

In terms of the number of premium subscribers, SPOT is one of the companies with the highest level of Premium Subscribers in the industry and has always been above industry growth levels in terms of users. So, we expect that Spotify premium subscribers will grow by 24%, 21%, 18%, 15% and 12% respectively over each year of the Valuation Period. Therefore, average premium subscribers will increase respectively by 32%, 22%, 19%, 16% and 13% over the Valuation Period, Table 11.

The Ad-Supported Segment revenues are expected to follow the expected growth of the Video, Social Media and Banner Advertising sector. Overall, the revenues of this segment will increase by 26%, 22%, 14%, 12% and 10% respectively in 2019F, 2020F, 2021F, 2022F and 2023F, Figure 24. Although, SPOT's ad-supported segment has always been growing more than the industry, we project that this gap will diminish in the future. So, Spotify ad-supported segment growth will converge into industry levels.

Overall, Spotify total revenues will increase at CAGR of 17.88% over the Valuation Period, Figure 25, further detail on the revenues forecast can be seen on Appendix 8.

Figure 23: ARPU evolution

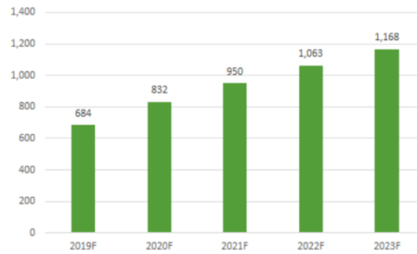
Source: Authors Estimations

Table 11: Premium Segment Evolution

	2019F	2020F	2021F	2022F	2023F
Premium Revenues (M€)	**6,132**	**7,509**	**8,998**	**10,524**	**11,994**
Growth (%)	29.99%	22.46%	19.83%	16.96%	13.96%
ARPU	**4.75 €**	**4.76 €**	**4.78 €**	**4.80 €**	**4.82 €**
Growth (%)	-1.20%	0.10%	0.40%	0.50%	0.50%
Average Premium Subscribers (Millions)	**107.52**	**131.54**	**157.00**	**182.71**	**207.19**
Premium Users Beginning of the Period (Millions)	96.00	119.04	144.04	169.97	195.46
Premium Users End of the Period (Millions)	119.04	144.04	169.97	195.46	218.92

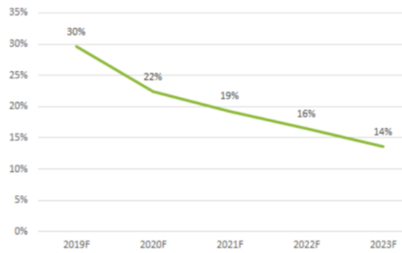
Source: Authors Estimations

Figure 24: Ad-Supported Segment Evolution



Source: Authors Estimations

Figure 25: Revenues Growth Rate



Source: Authors Estimations

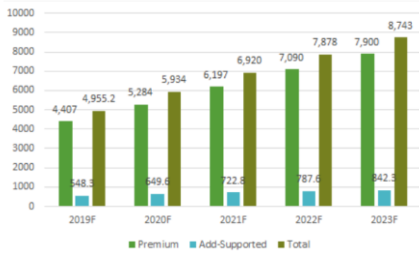
11 Average number of premium subscribers is computed by doing the average between the number of premium subscribers at the beginning and at the end of the period.

Cost of Revenues

Spotify's operational expenses mainly reflect the cost of contracts with labels and artist. Historically the percentage of Spotify's operational expenses compared to its revenues has been decreasing, with the Ad-Supported segment experiencing a sharper decrease than in the Premium segment. We believe this will continue to occur over the Valuation Period both in terms of Premium and Ad-Supported Costs of Revenues, since Spotify has agreements with the Big Three and, more and more, both the music and the advertising industry are dependent on services like the one Spotify offers.

Overall, the Premium and Ad-Supported Cost of Revenue weight over their respectively revenues will decrease in 2019F, respectively, 1.5% and 2% YOY compared to the previous year weight. Total cost of revenues will increase at a CAGR of 15.25% over the Valuation Period, Figure 26.

Figure 26: Cost of Revenues



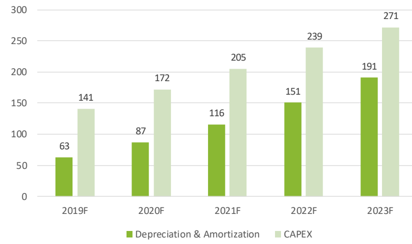
Source: Authors Estimations

Capital Expenditure and Depreciation & Amortizations - Figure 27

Spotify's capital expenditure (CapEx) contains both the investments made on fixed and on intangible assets. Therefore, CapEx is the sum of the added value to the gross value at the beginning of the period for both items.

SPOT CapEx was estimated by considering the average of the weight of investment in comparison to the revenues of the last two years (2017-2018) in the case of fixed assets; and of the last four years (2015-2018) in the case of intangible assets. The difference in the period considered is a consequence of the change in the investment policy that Spotify has been using, keeping a more balanced investment in Intangible Assets while in Fixed Assets the investment has been stronger in the last year and according to the Annual Report it should keep the same level in the future. (Figure 28)

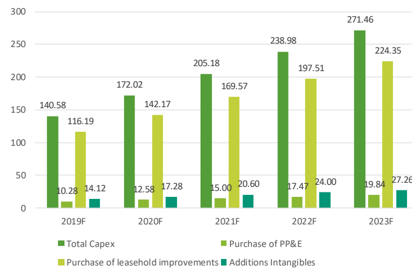
Figure 27: CapEx and D&A



Source: Authors Estimations

For Depreciation & Amortization we analyzed the historical depreciation and amortization rate of the past 4 years and the lifetime of these items stated in the Annual Report (3-5 years). In the case of the fixed assets, for the P&PE we assumed the 2018's depreciation rate since it was quite lower than in the other years and investment in this asset has been lower than in past years, additionally it is also projected that this items will depreciate at a slower rate. On the other hand, in the case of Leasehold Improvements we assumed that it will be equal to the average of the last 4 years depreciation rate, 16.57%.

Figure 28: CapEx Evoulution



Source: Authors Estimations

In the case of Intangible assets, we assumed it will be the minimum between the Average of the last 4 years depreciation rate and the lifetime of the assets stated in the annual report, which represents a depreciation rate of 25%. Therefore, we assumed a depreciation rate of 25%.

Debt and Interest Expenses

Historically Spotify had no debt in 2018, and in the two years before its debt was only constituted by convertible notes that were converted into shares when the IPO happened, additional to this the Company had no other debt. Therefore, and because of no information about debt level projections on the 2018 Annual Report we assumed that Debt will be equal to 2018 nominal value, this is equal to zero throughout the

Valuation, Normalization and Perpetual Period. However, a scenario analysis was conducted on how the debt weight would impact our final recommendation, on the last chapter.

Consequently, interests are assumed to be zero as the Company has no debt so it will pay no interests.

Weighted Average Cost of Capital Assumptions (WACC)

We estimated the Weighted Average Cost of Capital (Modigliani and Miller 1958,1963) to use as the rate to discount the cash flows of the firm, Table 12. Appendix 9 includes all the details on the computation of WACC for all the respective periods.

Since we consider that Spotify will have no Debt, the capital structure for all the periods will only include equity and therefore only be dependent on the cost of equity considered.

Table 12: Ke, Ku and WACC

Period:	Valuation and Normalization	Perpetuity
Ke	6.86%	7.46%
kd	5.75%	5.75%
Pre-Tax WACC	6.86%	7.46%
After-Tax WACC	6.86%	7.46%

Source: Authors Estimations

Cost of equity (Re)

Cost of equity was calculated following the Capital Asset Pricing Model (Sharpe, 1954; Lintner, 1965), that includes four variables: Risk-free rate (Rf); Market Risk Premium (MRP); Levered Beta (Bl) and Country Risk Premium (CRP).

Although Spotify stocks are traded in dollars, the Company has its headquarters on Europe, Sweden, it presents its financial statements in euros and we are evaluating the company in euros. Therefore, the German bund with 10Y and 30Y maturity were used to estimate Spotify's Rf. For the period 2019-2027 the 10Y maturity German bund yield (-0.33%) was used and for the perpetual Rf the 30Y maturity German bund yield was used, 0.27%.

For the levered beta it was analyzed several methods of computation, the correlation between the stock and the market prices of the index S&P500, the beta regression and the unlevered beta of the industry where Spotify operates. Although all the methods provided different values, with the industry and the correlation method being the ones which provided the closest results. We decided to use the unlevered beta of the industry instead of using the correlated method as Spotify is quite a recent stock, so the timeframe used is short to take reasonable conclusions. Therefore, from the unlevered beta of 1.21 we obtained a levered beta for the period 2019-2027 of 1.21 and a perpetual levered beta of 1.21, which means in both cases that the stock is riskier when compared to the market risk.

For the MRP and CRP we used the Damodaran predictions of April 2019, which corresponded respectively to 5.96% and 0%.

Cost of Debt (Kd)

The Kd was assumed equal to the cost of debt of the industry, according to Damodaran April 2019, 5.75% for all the periods. Damodaran estimation was used as we considered that the Company will have no Debt outstanding.

Normalization Period and Perpetuity - Table 13

As stated before, after the valuation period it was considered a "Normalization Period" and only after the perpetuity was considered. For the growth rates of both periods we considered for the Normalized Period a growth rate of 7% from 2024 until 2025 and from 2026 until 2027 a growth rate of 5%. On the other hand, for the Terminal growth rate we considered the weighted average of the projected GDP growth rate (2019-2024) according to Spotify's revenues weight per geographical region, which resulted in a terminal growth rate of 2.68%.

Free Cash Flow Firm (FCFF) Method

The Present Value as of 2020 for the Valuation Period plus the normalized period is 5,339 M€ and the Present Value as of 2020 for Perpetual Period is 16,776 M€, which means that perpetuity period is riskier and has a higher influence over the price target than the valuation and normalized period together, Table 14. Additional clarification on inputs and calculations for this method can be checked on Appendix 11.

Consequently, the Entity Value is of 22,115 M€, to which Net Debt is added obtaining an Enterprise Value of 23,411 M€. Considering an outstanding number of shares of around 179.84 million and an EUR/USD exchange rate of 1.12[12], the price per share for the 2020-year ending is of $145.21, which is equivalent to a HOLD recommendation with a 19.44% upside potential.

Adjusted Present Value (APV) Method

This method provides us the value of the Company if it was only financed by equity and then we need to add the present value of its financial benefits, considering the tax shield effect provided by interest deductibility. However, as we are assuming no debt therefore no interest payment thus no tax shield effect. For further explanation on inputs and calculation check Appendix 12.

Using this method, the price per share for the 2020-year ending is of $145.21, equivalent to a Hold recommendation with a 19.44% upside potential, Table 15. The recommendation according to this method is a Hold recommendation, in line with the FCFF recommendation.

Flow-to-Equity (FTE) Method

The FTE method evaluates the Company by how much cash is available for the shareholders, after considering all expenses. Using this method, the price per share for the 2020-year ending is of $145.21, equivalent to a Hold recommendation with a 19.44% upside potential, Table 16. The recommendation according to this method is a Hold recommendation, in line with the FCFF and APV recommendation.

All computations and assumptions for this method can be checked on Appendix 13.

Relative Valuation – Table 17

The Relative Valuation was conducted as a complementary valuation method. To obtain the target price of Spotify we used the following multiples EV/Revenues, Price to Earnings, and EV/EBITDA. However, the P/E and EV/EBITDA ratios are not seen

Table 13: Growth Rates

Growth rate	% Revenues (2018)	Average Growth (2019-2024)	Growth expected per country
Other Countries	51.47%	3.57%	1.84%
United States	37.52%	1.80%	0.68%
United Kingdom	10.95%	1.57%	0.17%
Luxembourg	0.06%	3.12%	0.00%
Perpertuity Growth Rate			**2.68%**

Normalization Period	
2024F - 2025F	**7%**
2026F - 2027F	**5%**

Source: Authors Estimations and IMF Projections

Table 14: FCFF Method Results

Price - Target (2020)	
TV	26,689
PV(TV)	16,776
PV (FCFF)	5,339
Entity Value	22,115
Net Debt	-1,296
Intrinsic Value of Equity	**23,411**
# of share	179.84
Price- Target (€)	**130.18 €**
EUR/USD (23/05/2019)	1.12
Price- Target ($)	**$145.21**
Closing Price May 23rd ($)	$121.58
Upside Potential	19.44%

Units: Millions of €

Source: Authors Estimations

Table 15: APV Method Results

Price - Target (2020)	
Unlevered EV	5,339
PV (ITS)	0
TV	26,689
PV (TV)	16,776
Entity Value	22,115
Net Debt	-1,296
Intrinsic Value of Equity	**23,411**
# of Sares	179.84
Price- Target (€)	**130.18 €**
EUR/USD (23/05/2019)	1.12
Price- Target ($)	**$ 145.21**
Closing Price May 23rd ($)	$ 121.58
Upside Potential	**19.44%**

Units: Millions of €

Source: Authors Estimations

Table 16: FTE Method Results

Price - Target (2020)	
PV (TV)	16,776
Entity value	22,115
Net Debt	-1,296
Intrinsic Value of Equity	**23,411**
# of Sares	179.8
Price- Target (€)	**130.18 €**
EUR/USD (23/05/2019)	1.12
Price- Target ($)	**$ 145.21**
Closing Price May 23rd ($)	$ 121.58
Upside Potential	**19.44%**

Units: Millions of €

Source: Authors Estimations

All	$ 199.79	$ 75.39	$ 178.17
Recommendation	Strong Buy	Sell	Strong Buy
Netflix	$ 263.09	$ 177.92	$ 274.80
Recommendation	Strong Buy	Strong Buy	Strong Buy
Sirius	$ 283.40	$ 43.65	$ 47.06
Recommendation	Strong Buy	Sell	Sell
Pandora	$ 107.37	n.m.	n.m.
Recommendation	Sell	n.m.	n.m.
TME	$ 771.14	n.m.	n.m.
Recommendation	Strong Buy	n.m.	n.m.

Source: Authors Estimations

[12] Exchange rate as of 23rd of May of 2019.

as the most adequate as Spotify historically has generated negative Net Profit and negative EBITDA. Therefore, EV/Revenues is considered the most appropriate multiple to evaluate Spotify, it is also the most appropriate multiple to evaluate young companies with losses (Damodaran, 2012).

In terms of peers, Spotify has several companies operating in the same industry with similar characteristics, such as Apple Music, Google Music Play, Amazon Music Prime, Viacom Inc, Sirius XM Holdings Inc, Radioio Inc, Tencent Music Entertainment, Pandora Inc. and YouTube (Table 18, Appendix 14). However, or these companies are recent (therefore, not a lot of data on these companies is available) and small when compared to Spotify or these companies are big in terms of size and music streaming services is not their main business segment. Additionally, we also considered Netflix as a comparable company. Although Netflix does not operate in the music streaming service, it operates in the video streaming industry that is a similar industry but slightly more mature, also Netflix and Spotify have a similar business model.

Using historical data, if we compare Spotify to Netflix, we always get a Strong Buy recommendation with a price target of 263.09$ using the EV/Revenues, for the year end of 2020. If we compare Spotify to Sirius and TME we obtain also a Strong Buy recommendation, however when we compare it to Pandora, we obtain a Sell recommendation, using the EV/Revenues multiple.

Further detail on Relative Valuation Method can be checked on Appendix 15

Table 18: Peers Information

Company	Industry	Mkt. Cap. ($)
Spotify Technology S.A.	**Internet Media**	**21.69B**
Netflix INC	Internet Media	118.544B
ALPHABET INC	Internet Media	852.755B
AMAZON.COM INC	Consumer Services	887.492B
APPLE INC	Hardware	868,343
Pandora Media LLC	Internet Media	n.m.
Radioio Inc	Internet Media	41.12k
SIRIUS XM HOLDINGS INC*	Media	27.86B
Tencent Music Entertainment	Internet Media	22.21B

Source: Financial Times and Bloomberg

7. Financial Analysis

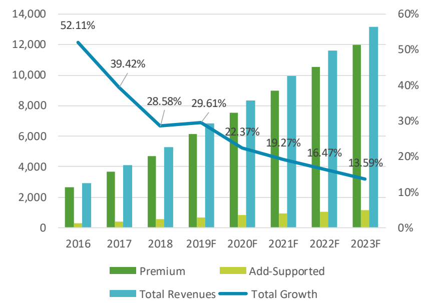
Operational Performance

Spotify has been experiencing increases in revenues since it became operational, with revenues increasing 385% over the last 4 years (CAGR of 48% from 2014-2018), with the Premium Segment historically always representing around 90% of total revenues. Our projections predict that Spotify's revenues will increase at a CAGR of 17.88% from 2019 to 2023 (Figure 29), with the premium segment representing around 91% of the consolidated revenues in 2023, keeping the same weight in terms of business lines as historically. Costs of revenues will grow at a 15.25% CAGR from 2019 to 2023.

Overall, historically Spotify's gross margin has been increasing from 14% in 2015 to 26% in 2018. For the upcoming years, we project an increasing gross margin achieving a level of 34% in 2023. (Figure 30).

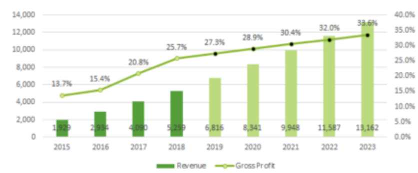
In terms of EBITDA, EBIT and Net Profit Margin until 2018 Spotify never had a positive EBITDA, EBIT or Net Profit, Figure 31. Therefore, all these margins have been negative. However, according to our expectations in 2019 Spotify will generate an EBITDA of 183M€ (FY2018: -11M€), an EBIT of 120 M€ (FY2018: -43M€) and a Net Profit of 110 M€ (FY2018: -78M€). Additionally, according to our estimations, Spotify will reach margins of 9.5%, 8% and 6.32% of EBITDA, EBIT and Net Profit Margin respectively in 2023. This positive evolution mainly reflects our assumption that overall costs will increase at a slower pace than revenues, as we believe Spotify will have some advantage over record labels since music streaming services are their future in terms of revenues, also the advertising industry will become more dependent on digital

Figure 29: Revenues Forecast



Source: Authors Estimations

Figure 30: Revenues and Gross Margin Forecast



Source: Authors Estimations

Figure 31: EBITDA, EBIT and Net Profit Margins

Source: Authors Estimations

advertising and moreover, we expect SPOT to start producing content internally, which will be less costly.

Profitability Ratios

Spotify has not been profitable since it became operational, however and according to our estimations this trend will change in 2019. We expect SPOT to achieve profitability in 2019, presenting a ROE of 5.15% and an EPS of 0.61x. During the valuation period, Figure 32, all profitability ratios will improve following the overall improvement in cost and revenues.

Figure 32: ROA, ROC, ROE and EPS

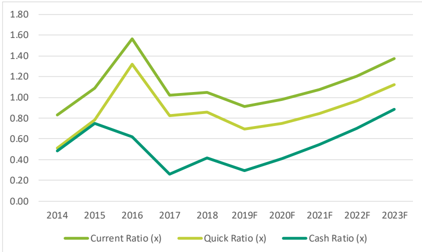
Source: Authors Estimations

Liquidity Ratios

Spotify's liquidity deteriorated in 2016 and 2017 reflecting the purchase of short-term investment, also in 2018 liquidity deteriorated as Spotify started its share repurchasing program. Liquidity ratios are expected to deteriorate in 2019 as Spotify will repurchase more shares and as the company will acquire two other companies spending around 300 M€ in cash in their acquisition.

However, after 2019 we expect liquidity ratios to improve, achieving in 2023 a Current, Quick and Cash Ratio of 1.52x, 1.27x and 1.04x (in 2019, 0.92x; 0.71x; and 0.31x), respectively. This liquidity improvement mainly reflects our assumptions that Spotify will not acquire additional companies and that it will not repurchase more shares. Spotify will generate on average 660 M€ each year from 2019 to 2023, having 4,189 M€ of cash on hands by the end of 2023 (Figure 33).

Figure 33: Liquidity Ratios

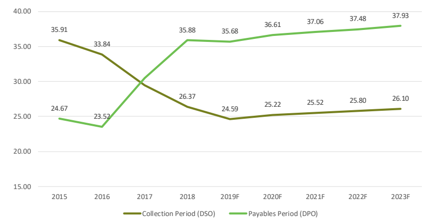


Source: Authors Estimations

Efficiency Ratios

Over the time, Spotify has been improving its collection and payables period. In 2015 Spotify presented a collection and payables period of 36 and 25 days, respectively, which improved to 26 and 35 days respectively in 2018 (Figure 34). Spotify's collection period will be on average of 26 days over 2019 to 2023 and its payables period will be on average of 37 days during the same period. This means, that Spotify will receive from clients 10 days earlier than in 2015 and will pay to customers 12 days later than in 2015.

Figure 34: Efficiency Ratios



Source: Author estimations

8. Investment Risks

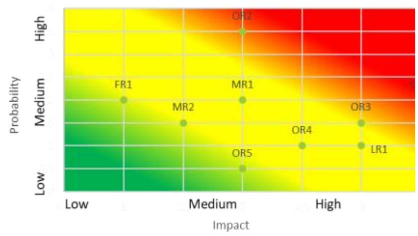
Operational Risk **| Content Supply (OR1)**

Spotify is heavily dependent on the content provided from The Big Three. Although Spotify has contracts with record labels and we expect that its terms will improve, the risk of a conflict of interest can dangerously increase Spotify content costs and suppress potential profit. Moreover, The Big Three have control over the music content supply market and can prejudice Spotify by providing better terms to its competitors, or worst by withdrawing their contract agreements with SPOT.

Operational Risk **| International Expansion (OR2)**

One of the goals of Spotify is to be available in all the possible markets. However, the current market expansion opportunities are in emerging countries, which have low

Figure 35: Risk Matrix



Source: Author estimations

disposable income and low GDP's, although this metrics are rising faster. The entrance in these types of markets will probably decline Spotify's ARPU. Also, most of these markets do not have access to digital payment.

Operational Risk **| Platform Support (OR3)**

Spotify is dependent on platforms to be available to its users. However, the companies who provide this service are also Spotify competitors. Therefore, Spotify is exposed to the risk of its competitors increasing tariffs or making the app less visible, becoming harder to users to get to know SPOT.

Operational Risk **| Piracy (OR4)**

Piracy has decreased while music streaming consumption increased. However, if higher prices are imposed or if users feel that it is easier and cheaper to have access to music through illegal methods, music streaming revenues can decrease sharply impacting the all industry.

Operational Risk **| Payment Process (OR5)**

Spotify receives its revenues through several payment methods (like credit and/or debit cards, gift cards, etc.); however, none of these methods includes cash in hands payments. If there is some problem in the internal systems that unable Spotify to receive user payments this can adversely impact the business.

Legal Risk **| Data Use (LR1)**

One of the characteristics that makes Spotify one of the best music streaming service is the interaction and personalization of the service to each user. This is only possible through the offering of the Ad-Supported service, which enables Spotify to have way more data than its competitors allowing to offer a better and a more unique experience to each user. Although, the use of personal data is becoming increasingly more regulated and if Spotify is found in a litigation against the regulation this can lead users to see the Company as untrusty.

Financial Risk **| Exchange Rate Risk (FR1)**

Spotify generates revenues in different currencies than euro, therefore it receives multi-currency cash flows (mainly in dollars). So, the risk is driven from significant exposure to currency exchange rate fluctuations that can adversely affect the operational results reported in euros. However, Spotify engages in limited hedging strategies, such as foreign exchange forward contracts and options, to try to mitigate this risk, yet is not completely eliminated.

Market Risk **| Macroeconomic Conditions (MR1)**

Macroeconomic conditions affect Spotify performance, as changes in these conditions impact the levels of advertising expenditures and the level of income that consumers are willing to spend on discretionary items.

Market Risk **| Controlled Company (MR2)**

Spotify is controlled by its two founders, which totally have 77.9% of the total voting power. Therefore, its minority shareholders have little or no power over business decisions. This can lead to a conflict of interests, as the founders can make it hard to sell the Company to a larger entity due to their close ties to the Company.

Risks to Price Target

In this section several sensitivity and scenario analysis will be examined, they are all based on the price target of $145.21 per share based on FCFF valuation method. Further sensitiveness analysis can be checked on Appendix 16.

Table 19: Recommendation system for high risk stocks

Sell	≤ 0%	≤ 121.58
Reduce	> 0% & ≤ 10%	> 121.58 & ≤133.74
Hold/neutral	> 10% & ≤ 20%	> 133.74 & ≤ 145.9
Buy	> 20% & ≤ 45%	> 145.9 & ≤ 176.29
Strong Buy	> 45%	> 176.29

Source: Authors estimations

<u>Share Repurchase Program:</u> Our base case assumes that in 2019, Spotify will spend 137.67 M€ on the share repurchasing program.

Although, Spotify had already spent 138 M€ in 2019, it was agreed that Spotify could spend up to one billion euros in the share repurchasing program. The following table shows different scenarios in which the company will spend different amounts until April 2021 on the repurchase program, we assumed the average price of $121.58 per share that will be spent for every share bought.

Table 20: Share Repurchase Program Scenarios

Scenario Summary	Current Values:	Scenario1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Shares Repurchased (amount spent)						
2019	-137.67	-150.00	-150.00	-200.00	-200.00	-150.00
2020	0	-150	-200	-250	-300	-50
2021	0	-150	-200	-100	-250	-50
2022	0	0	0	0	0	0
2023	0	0	0	0	0	0
Valuation						
TV	26,689	26,689	26,689	26,689	26,689	26,689
PV(TV)	16,776	16,776	16,776	16,776	16,776	16,776
PV (FCFF)	5,339	5,339	5,339	5,339	5,339	5,339
Entity Value	22,115	22,115	22,115	22,115	22,115	22,115
Net Debt	-1,296	-1,134	-1,084	-984	-934	-1,234
Intrinsic Value of Equity	23,411	23,248	23,198	23,098	23,048	23,348
# of share	179.84	177.27	176.45	176.45	174.80	178.91
Price per share (€)	130.18 €	131.15 €	131.48 €	130.91 €	131.85 €	130.50 €
EUR/USD (23/05/2019)	1.12	1.12	1.12	1.12	1.12	1.12
Price per share ($)	$ 145.21	$ 146.30	$ 146.66	$ 146.03	$ 147.08	$ 145.57
Price per share at 23/05/2019 ($)	$ 121.58	$ 121.58	$ 121.58	$ 121.58	$ 121.58	$ 121.58
Upside Potential (%)	19.44%	20.33%	20.63%	20.11%	20.98%	19.73%
Recommendation	Hold	Buy	Buy	Buy	Buy	Hold

Note: Assuming shares bought at na average price of $121.58 per share.

Source: Authors Estimations

According to our scenario test, the Repurchase Program can affect our recommendation; however, having an impact on our recommendation it will not have a huge impact on our price target. Additionally, it will also affect the company's overall liquidity, as it can be seen from the liquidity ratios that overall in the years of the program will be worse than in our base case scenario, liquidity ratios on Appendix 16.

<u>Debt Scenario</u>: Our base case assumes that Spotify will maintain always a debt level of 0%, equal to the one in 2018. However, this is a strong assumption. Therefore, we conducted a scenario analysis considering different weights of debt in our normalization and perpetual period, as shown in the next table.

Table 21: Debt Scenarios

Scenario Summary		Current Values:	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Scenario 9
Stress Variables:											
	2024F-2025F	0.00%	10.00%	0.00%	15.00%	0.00%	20.00%	0.00%	25.00%	0.00%	15.78%
Debt Weight:	2025F-2027F	0.00%	10.00%	0.00%	15.00%	0.00%	20.00%	0.00%	25.00%	0.00%	15.78%
	TV	0.00%	10.00%	10.00%	15.00%	15.00%	20.00%	20.00%	25.00%	25.00%	15.78%
FCFF Method Valuation Results:											
TV		26,689	25,485	25,485	24,924	24,924	24,386	24,386	23,871	23,871	24,838
PV(TV)		16,776	16,020	16,020	15,666	15,666	15,329	15,329	15,005	15,005	15,613
PV (FCFF)		5,339	5,339	5,339	5,339	5,339	5,339	5,339	5,339	5,339	5,339
Entity Value		22,115	21,358	21,358	21,005	21,005	20,667	20,667	20,344	20,344	20,952
Net Debt		-1,296	-1,296	-1,296	-1,296	-1,296	-1,296	-1,296	-1,296	-1,296	-1,296
Intrinsic Value of Equity		23,411	22,654	22,654	22,301	22,301	21,963	21,963	21,640	21,640	22,248
# of share		179.84	179.84	179.84	179.84	179.84	179.84	179.84	179.84	179.84	179.84
Price per share (€)		130.18€	125.97€	125.97€	124.01€	124.01€	122.13€	122.13€	120.33€	120.33€	123.71€
EUR/USD (23/05/2019)		1.116	1.116	1.116	1.116	1.116	1.116	1.116	1.116	1.116	1.116
Price per share ($)		145.21$	140.52$	140.52$	138.33$	138.33$	136.24$	136.24$	134.23$	134.23$	138.00$
Price per share at 23/05/2019 ($)		121.58$	121.58$	121.58$	121.58$	121.58$	121.58$	121.58$	121.58$	121.58$	121.58$
Upside Potential (%)		19.44%	15.58%	15.58%	13.78%	13.78%	12.05%	12.05%	10.40%	10.40%	13.50%
Recommendation		Hold	Hold	Hold	Hold	Hold	Hold	Hold	Hold	Hold	Hold

Source: Authors Estiamtions

Overall, the Scenarios tested do not change our final recommendation.

<u>Growth Rates:</u> Since these are two of the variables which have the major impact when applying the DCF model, we are analyzing how the price target will be affected if the normalization period and perpetuity period growth rate change. We can see that price target suffers a higher impact when terminal growth rate changes, however normalization period growth rate also impacts the target price in a material way. In conclusion, we can say that a slight change in one of these rates can change our recommendation.

Table 22: Sensitivity analysis for the Normalized period and Terminal growth rate

Stress Variables		Perpetuity Growth Rate											
	$145	0.50%	0.75%	1.00%	1.25%	1.50%	1.75%	2.00%	2.25%	**2.68%**	3.00%	3.50%	4.00%
2024F-2025F Growth Rate	4.0%	$ 100.72	$ 103.29	$ 106.05	$ 109.04	$ 112.28	$ 115.80	$ 119.65	$ 123.87	$ 132.15	$ 139.35	$ 152.93	$ 170.44
	4.5%	$ 102.19	$ 104.81	$ 107.63	$ 110.67	$ 113.98	$ 117.57	$ 121.49	$ 125.79	$ 134.23	$ 141.58	$ 155.42	$ 173.28
	5.0%	$ 103.68	$ 106.35	$ 109.22	$ 112.33	$ 115.70	$ 119.36	$ 123.36	$ 127.74	$ 136.35	$ 143.83	$ 157.95	$ 176.15
	5.5%	$ 105.19	$ 107.91	$ 110.84	$ 114.01	$ 117.44	$ 121.18	$ 125.25	$ 129.72	$ 138.49	$ 146.12	$ 160.51	$ 179.07
	6.0%	$ 106.72	$ 109.50	$ 112.48	$ 115.71	$ 119.21	$ 123.02	$ 127.17	$ 131.72	$ 140.67	$ 148.44	$ 163.11	$ 182.02
	6.5%	$ 108.28	$ 111.10	$ 114.15	$ 117.44	$ 121.00	$ 124.88	$ 129.11	$ 133.75	$ 142.87	$ 150.80	$ 165.75	$ 185.02
	7.0%	$ 109.85	$ 112.73	$ 115.83	$ 119.19	$ 122.82	$ 126.77	$ 131.09	$ 135.81	**$ 145**	$ 153.18	$ 168.42	$ 188.06
	7.5%	$ 111.45	$ 114.38	$ 117.54	$ 120.96	$ 124.66	$ 128.69	$ 133.08	$ 137.90	$ 147.37	$ 155.60	$ 171.13	$ 191.14
	8.0%	$ 113.06	$ 116.05	$ 119.27	$ 122.76	$ 126.53	$ 130.63	$ 135.11	$ 140.02	$ 149.67	$ 158.05	$ 173.87	$ 194.26
	8.5%	$ 114.70	$ 117.75	$ 121.03	$ 124.58	$ 128.42	$ 132.60	$ 137.16	$ 142.17	$ 151.99	$ 160.54	$ 176.65	$ 197.43
	9.0%	$ 116.36	$ 119.47	$ 122.81	$ 126.42	$ 130.34	$ 134.60	$ 139.25	$ 144.34	$ 154.35	$ 163.06	$ 179.48	$ 200.64
	9.5%	$ 118.04	$ 121.21	$ 124.61	$ 128.29	$ 132.28	$ 136.62	$ 141.36	$ 146.55	$ 156.74	$ 165.61	$ 182.34	$ 203.90
	10.0%	$ 119.75	$ 122.97	$ 126.44	$ 130.19	$ 134.25	$ 138.67	$ 143.49	$ 148.78	$ 159.17	$ 168.20	$ 185.23	$ 207.19

Source: Authors Estimations

<u>Risk Free</u>: In our assumptions we are projecting a fixed yield (10-year German Bund Yield) for the valuation and normalized period, and a fixed yield for perpetuity (30-year German Bund Yield). However, yields are very unpredictable and consequently we tested how changes in these two inputs would affect our estimation for the target price. According to our sensitivity analysis, our target price will be affected by changes in these variables, however the perpetuity risk free rate has a stronger impact.

Table 23: Sensitivity analysis for the Valuation and Normalized period and Perpetuity Risk Free Rate

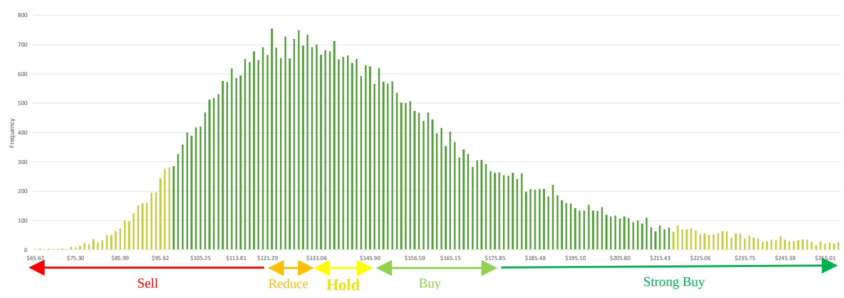
Stress Variables		Valuation and Normalized Period Risk Free Rate										
	$145	-0.45%	-0.40%	**-0.33%**	-0.20%	-0.15%	-0.10%	0.50%	0.60%	1%	1.50%	2%
Perpetuity Risk Free Rate	0.10%	$ 150.06	$ 149.64	$ 149.06	$ 147.98	$ 147.57	$ 147.16	$ 142.35	$ 141.57	$ 138.50	$ 134.78	$ 131.19
	0.15%	$ 148.89	$ 148.47	$ 147.90	$ 146.83	$ 146.42	$ 146.01	$ 141.25	$ 140.48	$ 137.43	$ 133.75	$ 130.20
	0.20%	$ 147.75	$ 147.33	$ 146.76	$ 145.70	$ 145.30	$ 144.90	$ 140.18	$ 139.41	$ 136.39	$ 132.74	$ 129.22
	0.25%	$ 146.63	$ 146.22	$ 145.65	$ 144.60	$ 144.20	$ 143.80	$ 139.12	$ 138.36	$ 135.38	$ 131.76	$ 128.27
	0.27%	$ 146.19	$ 145.78	**$ 145.21**	$ 144.17	$ 143.77	$ 143.37	$ 138.71	$ 137.95	$ 134.97	$ 131.37	$ 127.89
	0.40%	$ 143.40	$ 143.01	$ 142.45	$ 141.43	$ 141.04	$ 140.65	$ 136.10	$ 135.35	$ 132.44	$ 128.92	$ 125.52
	0.50%	$ 141.36	$ 140.97	$ 140.43	$ 139.42	$ 139.04	$ 138.66	$ 134.18	$ 133.45	$ 130.59	$ 127.12	$ 123.78
	0.60%	$ 139.40	$ 139.02	$ 138.48	$ 137.50	$ 137.12	$ 136.74	$ 132.33	$ 131.62	$ 128.80	$ 125.39	$ 122.10
	1.00%	$ 132.27	$ 131.91	$ 131.41	$ 130.48	$ 130.13	$ 129.77	$ 125.63	$ 124.96	$ 122.31	$ 119.11	$ 116.02
	1.50%	$ 124.70	$ 124.36	$ 123.89	$ 123.03	$ 122.70	$ 122.37	$ 118.51	$ 117.89	$ 115.42	$ 112.44	$ 109.56
	2.00%	$ 118.28	$ 117.97	$ 117.53	$ 116.72	$ 116.41	$ 116.10	$ 112.49	$ 111.90	$ 109.59	$ 106.79	$ 104.09
	2.50%	$ 112.79	$ 112.49	$ 112.08	$ 111.31	$ 111.02	$ 110.73	$ 107.32	$ 106.77	$ 104.59	$ 101.95	$ 99.40
	3.00%	$ 108.02	$ 107.74	$ 107.35	$ 106.63	$ 106.35	$ 106.08	$ 102.84	$ 102.32	$ 100.25	$ 97.75	$ 95.33

Source: Authors Estimations

Monte Carlo Simulation

A total of 50,000 trials were covered when simulating the Monte Carlo analysis. The impact of the following variables on the target price were tested: Terminal Growth Rate, Unlevered Beta, Market Risk Premium, Normalization Growth Rate for 2024 until 2025, the risk-free rates, the growth of premium users and others (further detail on the assumptions used on Appendix 16).

Figure 36: Monte Carlo Simulation



Source: Authors estimations

Table 24: Monte Carlo Statistics

Monte Carlo Statistics	
Trials	50,000
Base Case	$145.21
Mean	$146.06
Upside Potential	20.13%
Median	$138.75
Upside Potential	14.12%
Standard Deviation	$40.25
10th Percentile	$105.78
90th Percentile	$193.81
Minimum	$65.13
Maximum	$1,323.00

Source: Authors estimations

The results from the Monte Carlo simulation, Table 24, provide an average target price of $146.06, slightly above our base case, which results in a BUY recommendation representing an upside potential of 20.13%. However, the median target price is of $138.75 per share, which is in line with our final recommendation. Although, the average target price from the Monte Carlo simulation reflects a buy recommendation, our final recommendation is still a HOLD based on the FCFF method.

Appendices

Appendix 1: Statement of Financial Position

Spotify Technology S.A.	2014	2015	2016	2017	2018	2019F	2020F	2021F	2022F	2023F	CAGR	
Assets											**Historical Period**	**Forecasted Period**
Non-current Assets												
Property and equipment	51	81	85	73	197	275	362	453	546	633	40.39%	23.16%
Intangible assets including goodwill	59	73	80	162	174	473	471	469	465	458	31.31%	-0.80%
Investment in associate	0	1	0	1	0	0	0	0	0	0		
Long term investments	0	0	0	910	1,646	1,646	1,646	1,646	1,646	1,646		0.00%
Restricted cash and other non-current assets	10	21	23	54	65	73	89	106	123	140	59.47%	17.88%
Deferred tax assets	4	4	3	9	8	8	8	8	8	8	19.63%	0.00%
	123	**180**	**191**	**1,209**	**2,090**	**2,475**	**2,576**	**2,682**	**2,788**	**2,885**	**102.95%**	**3.91%**
Current Assets												
Trade and other receivables	135	244	300	360	400	518	634	757	881	1,001	31.08%	17.88%
Income tax receivable	1	3	6	0	2	2	2	2	2	2	17.87%	0.00%
Short term investments	0	0	830	1,032	915	915	915	915	915	915		0.00%
Cash and cash equivalents	206	597	755	477	891	737	1,296	2,037	2,995	4,189	44.14%	54.39%
Other current assets	8	27	18	29	38	38	38	38	38	38	46.98%	0.00%
	351	**871**	**1,909**	**1,898**	**2,246**	**2,211**	**2,885**	**3,749**	**4,831**	**6,145**	**59.04%**	**29.12%**
Total Assets	**474**	**1,051**	**2,100**	**3,107**	**4,336**	**4,685**	**5,461**	**6,431**	**7,619**	**9,030**	**73.88%**	**17.83%**
Equity and liabilities												
Equity												
Share capital	0	0	0	0	0	0	0	0	0	0		
Other paid in capital	404	797	830	2,488	3,801	3,801	3,801	3,801	3,801	3,801	75.12%	0.00%
Treasury shares	0	0	0	0	-77	-215	-215	-215	-215	-215		0.00%
Other reserves	55	85	122	177	875	980	1,086	1,212	1,359	1,526	99.69%	11.71%
Accumulated deficit	-423	-653	-1,192	-2,427	-2,505	-2,395	-2,163	-1,769	-1,172	-341	55.99%	-38.59%
Equity attributable to owners of the parent	**36**	**229**	**-240**	**238**	**2,094**	**2,171**	**2,509**	**3,030**	**3,773**	**4,772**	**175.90%**	**21.76%**
Non-current liabilities												
Convertible notes	0	0	1,106	944	0	0	0	0	0	0		
Accrued expenses and other liabilities	12	16	10	56	85	110	135	161	187	213	64.21%	17.88%
Provisions	2	8	4	6	8	8	8	8	8	8	39.87%	0.00%
Deferred tax liabilities	0	0	0	3	2	2	2	2	2	2	88.03%	0.00%
	14	**24**	**1,120**	**1,009**	**95**	**120**	**145**	**171**	**197**	**223**	**61.57%**	**16.68%**
Current liabilities												
Trade and other payables	106	119	201	341	427	542	649	757	861	956	41.69%	15.25%
Income tax payable	12	5	6	9	5	5	5	5	5	5	-18.81%	0.00%
Deferred revenue	63	92	149	216	258	352	431	514	598	680	42.43%	17.88%
Accrued expenses and other liabilities	221	485	673	881	1,076	1,114	1,342	1,574	1,804	2,014	48.48%	15.95%
Provisions	16	15	57	59	42	42	42	42	42	42	27.01%	0.00%
Derivative liabilities	7	82	134	354	339	339	339	339	339	339	167.65%	0.00%
	424	**798**	**1,220**	**1,860**	**2,147**	**2,394**	**2,807**	**3,231**	**3,649**	**4,036**	**49.99%**	**13.95%**
Total liabilities	**438**	**822**	**2,340**	**2,869**	**2,242**	**2,514**	**2,952**	**3,401**	**3,846**	**4,258**	**50.40%**	**14.08%**
Total equity and liabilities	**474**	**1,051**	**2,100**	**3,107**	**4,336**	**4,685**	**5,461**	**6,431**	**7,619**	**9,030**	**73.88%**	**17.83%**

Units: Millions of €
Source: Company data and authors estimates

Appendix 2: Common Size Statement of Financial Position

Spotify Technology S.A.	2014	2015	2016	2017	2018	2019F	2020F	2021F	2022F	2023F
Assets										
Non-current Assets										
Property and equipment	10.69%	7.71%	4.05%	2.35%	4.54%	5.87%	6.62%	7.05%	7.16%	7.01%
Intangible assets including goodwill	12.34%	6.95%	3.81%	5.21%	4.01%	10.09%	8.63%	7.29%	6.10%	5.07%
Investment in associate	0.00%	0.10%	0.00%	0.03%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Long term investments	0.00%	0.00%	0.00%	29.29%	37.96%	35.13%	30.14%	25.59%	21.60%	18.23%
Restricted cash and other non-current assets	2.12%	2.00%	1.10%	1.74%	1.50%	1.55%	1.63%	1.65%	1.62%	1.55%
Deferred tax assets	0.82%	0.38%	0.14%	0.29%	0.18%	0.17%	0.15%	0.12%	0.10%	0.09%
	25.97%	**17.13%**	**9.10%**	**38.91%**	**48.20%**	**52.81%**	**47.17%**	**41.71%**	**36.59%**	**31.95%**
Current Assets										
Trade and other receivables	28.56%	23.22%	14.29%	11.59%	9.22%	11.07%	11.62%	11.77%	11.57%	11.09%
Income tax receivable	0.22%	0.29%	0.29%	0.00%	0.05%	0.04%	0.04%	0.03%	0.03%	0.02%
Short term investments	0.00%	0.00%	39.52%	33.22%	21.10%	19.53%	16.76%	14.23%	12.01%	10.13%
Cash and cash equivalents	43.53%	56.80%	35.95%	15.35%	20.56%	15.74%	23.73%	31.68%	39.31%	46.39%
Other current assets	1.72%	2.57%	0.86%	0.93%	0.88%	0.81%	0.70%	0.59%	0.50%	0.42%
	74.03%	**82.87%**	**90.90%**	**61.09%**	**51.80%**	**47.19%**	**52.83%**	**58.29%**	**63.41%**	**68.05%**
Total Assets	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
Equity and liabilities										
Equity										
Share capital	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other paid in capital	85.20%	75.83%	39.52%	80.08%	87.65%	81.13%	69.60%	59.10%	49.89%	42.09%
Treasury shares	0.00%	0.00%	0.00%	0.00%	-1.78%	-4.58%	-3.93%	-3.34%	-2.82%	-2.38%
Other reserves	11.60%	8.09%	5.81%	5.70%	20.18%	20.92%	19.88%	18.85%	17.84%	16.90%
Accumulated deficit	-89.20%	-62.13%	-56.76%	-78.11%	-57.77%	-51.12%	-39.61%	-27.50%	-15.39%	-3.77%
Equity attributable to owners of the parent	**7.62%**	**21.79%**	**-11.43%**	**7.66%**	**48.29%**	**46.34%**	**45.94%**	**47.11%**	**49.52%**	**52.84%**
Non-current liabilities										
Convertible notes	0.00%	0.00%	52.67%	30.38%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accrued expenses and other liabilities	2.46%	1.52%	0.48%	1.80%	1.96%	2.35%	2.47%	2.50%	2.46%	2.36%
Provisions	0.44%	0.76%	0.19%	0.19%	0.18%	0.17%	0.15%	0.12%	0.10%	0.09%
Deferred tax liabilities	0.03%	0.00%	0.00%	0.10%	0.05%	0.04%	0.04%	0.03%	0.03%	0.02%
	2.94%	**2.28%**	**53.33%**	**32.48%**	**2.19%**	**2.56%**	**2.65%**	**2.66%**	**2.59%**	**2.47%**
Current liabilities										
Trade and other payables	22.34%	11.32%	9.57%	10.98%	9.85%	11.56%	11.88%	11.76%	11.30%	10.58%
Income tax payable	2.43%	0.48%	0.29%	0.29%	0.12%	0.11%	0.09%	0.08%	0.07%	0.06%
Deferred revenue	13.22%	8.75%	7.10%	6.95%	5.95%	7.51%	7.89%	7.99%	7.85%	7.53%
Accrued expenses and other liabilities	46.67%	46.15%	32.05%	28.36%	24.81%	23.78%	24.57%	24.48%	23.67%	22.31%
Provisions	3.40%	1.43%	2.71%	1.90%	0.97%	0.90%	0.77%	0.65%	0.55%	0.47%
Derivative liabilities	1.39%	7.80%	6.38%	11.39%	7.82%	7.24%	6.21%	5.27%	4.45%	3.75%
	89.44%	**75.93%**	**58.10%**	**59.86%**	**49.51%**	**51.10%**	**51.41%**	**50.23%**	**47.89%**	**44.69%**
Total liabilities	**92.38%**	**78.21%**	**111.43%**	**92.34%**	**51.70%**	**53.66%**	**54.06%**	**52.89%**	**50.48%**	**47.16%**
Total equity and liabilities	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Source: Company data and authors estimates

Appendix 3: Income Statement

Spotify Technology S.A.	2014	2015	2016	2017	2018	2019F	2020F	2021F	2022F	2023F	CAGR Historical Period	CAGR Valuation Period
Revenue	1,085	1,929	2,934	4,090	5,259	6,816	8,341	9,948	11,587	13,162	48.38%	17.88%
Cost of Revenue	911	1,664	2,483	3,241	3,906	4,955	5,934	6,920	7,878	8,743	43.92%	15.25%
Gross Profit	**174**	**264**	**451**	**849**	**1,353**	**1,861**	**2,407**	**3,028**	**3,709**	**4,419**	**66.92%**	**24.14%**
Research & Development	114	136	207	396	493	639	782	933	1,086	1,234	44.13%	17.88%
Sales and Marketing	184	259	418	567	620	735	900	1,073	1,250	1,420	35.48%	17.88%
General and administrative	67	106	175	264	283	367	449	535	624	708	43.27%	17.88%
	365	501	800	1,227	1,396	1,741	2,131	2,541	2,960	3,362	39.80%	17.88%
Operating loss	**-191**	**-236**	**-349**	**-378**	**-43**	**120**	**276**	**487**	**749**	**1,057**	**-31.13%**	**72.39%**
Depreciation and amortization	19	30	38	54	32	63	87	116	151	191	13.92%	31.82%
EBITDA	**-172**	**-206**	**-311**	**-324**	**-11**	**183**	**363**	**603**	**900**	**1,248**	**-49.72%**	**61.61%**
Finance Income	29	36	152	118	455	27	33	39	45	52	99.82%	17.88%
Finance Costs	-19	-26	-337	-974	-584	0	0	0	0	0	134.08%	
Share in (losses)/earnings of associate	0	0	-2	1	-1	0	0	0	0	0	23.13%	
Finance income/(costs) - net	**9**	**10**	**-186**	**-855**	**-130**	**27**	**33**	**39**	**45**	**52**		**17.88%**
Loss before tax	**-182**	**-227**	**-536**	**-1,233**	**-173**	**146**	**309**	**526**	**794**	**1,108**	**-1.32%**	**65.89%**
Income tax (benefit)/expense	6	5	4	2	-95	37	77	131	198	276		65.89%
Net loss attributable to owners of the parent	**-188**	**-231**	**-539**	**-1,235**	**-78**	**110**	**232**	**395**	**596**	**832**	**-19.76%**	**65.89%**

Units: Millions of €
Source: Company data and authors estimates

Appendix 4: Common Size Income Statement

Spotify Technology S.A.	2014	2015	2016	2017	2018	2019F	2020F	2021F	2022F	2023F
Revenue	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Cost of Revenue	84%	86%	85%	79%	74%	73%	71%	70%	68%	66%
Gross Profit	**16%**	**14%**	**15%**	**21%**	**26%**	**27%**	**29%**	**30%**	**32%**	**34%**
Research & Development	11%	7%	7%	10%	9%	9%	9%	9%	9%	9%
Sales and Marketing	17%	13%	14%	14%	12%	11%	11%	11%	11%	11%
General and administrative	6%	5%	6%	6%	5%	5%	5%	5%	5%	5%
	34%	**26%**	**27%**	**30%**	**27%**	**26%**	**26%**	**26%**	**26%**	**26%**
Operating loss	**-18%**	**-12%**	**-12%**	**-9%**	**-1%**	**2%**	**3%**	**5%**	**6%**	**8%**
Finance Income	3%	2%	5%	3%	9%	0%	0%	0%	0%	0%
Finance Costs	-2%	-1%	-11%	-24%	-11%	0%	0%	0%	0%	0%
Share in (losses)/earnings of associate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Finance income/(costs) - net	**1%**	**1%**	**-6%**	**-21%**	**-2%**	**0%**	**0%**	**0%**	**0%**	**0%**
Loss before tax	**-17%**	**-12%**	**-18%**	**-30%**	**-3%**	**2%**	**4%**	**5%**	**7%**	**8%**
Income tax (benefit)/expense	1%	0%	0%	0%	-2%	1%	1%	1%	2%	2%
Net loss attributable to owners of the parent	**-17%**	**-12%**	**-18%**	**-30%**	**-1%**	**2%**	**3%**	**4%**	**5%**	**6%**

Source: Company data and authors estimates

Appendix 5: Projected Cash Flow Statement

Spotify Technology S.A.	2019F	2020F	2021F	2022F	2023F
Operating Activities	**368**	**494**	**705**	**959**	**1,246**
EBIT	120	276	487	749	1,057
D&A	63	87	116	151	191
Income Tax	37	77	131	198	276
Changes in NWC	-90	-70	-69	-65	-56
Finance Income	27	33	39	45	52
Finance Costs	0	0	0	0	0
Share in losses/(earnings) of associate	0	0	0	0	0
Changes in Provisions	0	0	0	0	0
others	105	106	126	147	167
Investment Activities	**-385**	**64**	**36**	**-1**	**-52**
CAPEX	141	172	205	239	271
Acquisitions and Mergers	-300	0	0	0	0
Investment in Associate	0	0	0	0	0
Long and Short Investments	0	0	0	0	0
Other Investments	64	252	258	256	236
Change in Restricted Cash	-8	-16	-17	-17	-17
Financing Activities	**-138**	**0**	**0**	**0**	**0**
Interest Paid	0	0	0	0	0
Dividends	0	0	0	0	0
Change in Debt	0	0	0	0	0
Others	-138	0	0	0	0
Change in Cash	**-154**	**559**	**742**	**958**	**1,194**
Cash Beginning of Period	891	737	1,296	2,037	2,995
Cash End of Period	**737**	**1,296**	**2,037**	**2,995**	**4,189**

Units: Millions of €
Source: Authors estimations

Appendix 6: Key Financial Ratios

Key Financial Ratios	2014	2015	2016	2017	2018	2019F	2020F	2021F	2022F	2023F
Liquidity Ratios										
Current Ratio (x)	0.83x	1.09x	1.56x	1.02x	1.05x	0.92x	1.03x	1.16x	1.32x	1.52x
Quick Ratio (x)	0.51x	0.79x	1.32x	0.83x	0.86x	0.71x	0.80x	0.93x	1.08x	1.27x
Cash Ratio (x)	0.49x	0.75x	0.62x	0.26x	0.42x	0.31x	0.46x	0.63x	0.82x	1.04x
Efficiency Ratios										
Total Assets Turnover	0.00	2.53	1.86	1.57	1.41	1.51	1.64	1.67	1.65	1.58
Receivables Turnover	0.00	10.16	10.78	12.39	13.84	14.84	14.47	14.30	14.15	13.98
Collection Period (DSO)	0.00	35.91	33.84	29.45	26.37	24.59	25.22	25.52	25.80	26.10
Payables Period (DPO)	0.00	24.67	23.52	30.52	35.88	35.68	36.61	37.06	37.48	37.93
Operating Cycle	0.00	35.91	33.84	29.45	26.37	24.59	25.22	25.52	25.80	26.10
Cash Cycle	0.00	60.58	57.36	59.97	62.26	60.27	61.84	62.58	63.27	64.03
Capex/Dep	0.00	1.94	1.10	0.94	4.78	2.22	1.98	1.77	1.59	1.42
Capex/Sales	0.01	0.03	0.01	0.01	0.03	0.02	0.02	0.02	0.02	0.02
PPE/ Sales	0.05	0.04	0.03	0.02	0.04	0.04	0.04	0.05	0.05	0.05
Operating Costs/ Revenues	0.34	0.26	0.27	0.30	0.27	0.26	0.26	0.26	0.26	0.26
NWC/ Revenues	-0.03	0.03	-0.01	-0.04	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05
Profitability Ratios										
Gross Margin	16.1%	13.7%	15.4%	20.8%	25.7%	27.3%	28.9%	30.4%	32.0%	33.6%
EBITDA Margin	-15.9%	-10.7%	-10.6%	-7.9%	-0.2%	2.7%	4.4%	6.1%	7.8%	9.5%
EBIT Margin	-17.6%	-12.3%	-11.9%	-9.2%	-0.8%	1.8%	3.3%	4.9%	6.5%	8.0%
Net Profit Margin	-17.34%	-12.00%	-18.38%	-30.20%	-1.48%	1.61%	2.78%	3.97%	5.15%	6.32%
ROA		-30.34%	-34.22%	-47.44%	-2.10%	2.44%	4.57%	6.63%	8.49%	9.99%
ROCE	-381.66%	-93.40%	-39.71%	-30.31%	-1.96%	5.22%	10.41%	15.20%	18.87%	21.16%
ROC	-528.87%	-103.18%	145.59%	-158.82%	-2.05%	5.51%	11.01%	16.06%	19.85%	22.15%
ROE		-174.53%	N.M.	N.M.	-6.69%	5.15%	9.91%	14.25%	17.53%	19.47%
EPS (x)	-1.05	-1.29x	-3.00x	-6.87x	-0.43x	0.61x	1.29x	2.19x	3.32x	4.63x
G&A / Sales (%)	6.19%	5.49%	5.97%	6.45%	5.38%	5.38%	5.38%	5.38%	5.38%	5.38%
S&M /Sales (%)	16.96%	13.42%	14.25%	13.86%	11.79%	10.79%	10.79%	10.79%	10.79%	10.79%
R&D/Sales (%)	10.53%	7.06%	7.05%	9.68%	9.37%	9.37%	9.37%	9.37%	9.37%	9.37%
Solvency Ratios										
Total Debt Ratio	0%	0%	53%	30%	0%	0%	0%	0%	0%	0%
Non-current Debt Ratio	0%	0%	53%	30%	0%	0%	0%	0%	0%	0%
Debt to Equity Ratio (x)	0.00	0.00x	-4.61x	3.97x	0.00x	0.00x	0.00x	0.00x	0.00x	0.00x
Equity Multiplier (x)	13.13	4.59x	-8.75x	13.05x	2.07x	2.16x	2.18x	2.12x	2.02x	1.89x
Debt to EBITDA (x)	0.00	0.00x	-3.55x	-2.91x	0.00x	0.00x	0.00x	0.00x	0.00x	0.00x
Net Debt to EBITDA (x)	1.20	2.89x	-1.13x	-1.44x	81.04x	-4.03x	-3.57x	-3.38x	-3.33x	-3.36x
Interest Coverage Ratio (x)	21.03	24.83x	-1.90x	-0.44x	-0.33x	n.m.	n.m.	n.m.	n.m.	n.m.
Equity to Assets	8%	22%	-11%	8%	48%	46%	46%	47%	50%	53%

Source: Company data and authors estimations.

Appendix 7: Forecasting Assumptions

General	2019F	2020F	2021F	2022F	2023F	Assumptions
Sweden Inflation Rate	1.90%	1.70%	1.90%	2.00%	2.00%	Sweden expected inflation rate for the period 2019-2023. Source: IMF (April 2019)
Euro Area Inflation Rate	1.30%	1.60%	1.7%	1.90%	1.90%	Euro Area expected inflation rate for the period 2019-2023. Source: IMF (April 2018)
US Inflation Rate	2.00%	2.70%	2.30%	2.20%	2.20%	US expected inflation rate for the period 2019-2023. Source: IMF (April 2019)
World Inflation Rate	3.60%	3.60%	3.50%	3.50%	3.40%	World expected inflation rate for the period 2019-2023 Source: IMF (April 2019)
World Real GDP	3.30%	3.60%	3.60%	3.60%	3.60%	World expected real GDP for the period 2019-2023. Source: IMF (April 2019)
EUR/USD exchange rate	1.12	1.14	1.17	1.20	1.22	Source: Bloomberg (September 2019)

INCOME STATEMENT	Notes	2019F	2020F	2021F	2022F	2023F	Assumptions
Revenues							
Growth Rate		29.61%	22.37%	19.27%	16.47%	13.59%	Revenues Assumption Table
Cost of Revenues							
Cost of Revenues	% of Revenues	72.70%	71.14%	69.56%	67.99%	66.43%	
Premium	% of Premium Revenues						Premium Costs are computed as the weight of premium costs over permium revenues in 2018 plus the adjustment. This adjustment is made because historically the weigh of Premium costs over premium revenues has always been decreasing. Additionally, we believe that SPOT will be able to improve contrat terms with labels and artists and with its strategy of audio-fisrt and in-house production it will decrease costs over time.
% of Premium Revenues		72%	70%	69%	67%	66%	
Adjustment		-1.5%	-1.5%	-1.5%	-1.5%	-1.5%	
Ad-Supported	% of Ad Supported Revenues						
% of Add-Suported Revenues		80%	78%	76%	74%	72%	Ad-Supported Costs are computed as the weight of ad-supported costs over ad-supported revenues in 2018 plus the adjustment. The adjustment is made based on the believe that has seen historically, the weight of Ad-supported costs over ad-supported revenues will keep decreasing.
Adjustment		-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	
OPEX							
Research & Development	% of Revenues	9.37%	9.37%	9.37%	9.37%	9.37%	Computed as % of Sales assuming a constant % equal to the one in 2018.
Sales and Marketing	% of Revenues	10.79%	10.79%	10.79%	10.79%	10.79%	Computed as % of Sales assuming a constant % of 10.79% compared to sales. This represents a decrease of 1% compared to the % in 2018, as S&M costs historically have been always decreasing since 2015.
General & Administrative	% of Revenues	5.38%	5.38%	5.38%	5.38%	5.38%	Computed as % of Sales assuming a constant % equal to the one in 2018.
D&A							
PP&E Depreciation Rate				9.19%			Equal to the Depreciation Rate of 2018
Leasehold Improvements Depreciation Rate				16.57%			Average of Depreciation Rate between 2015 and 2018.
Total Intangible Assets Amortization Rate				25.00%			Minimum between the Average of Depreciation Rate between 2015-2018 and the life cycle of the asset stated in the Annual Report (25%).
Financial Result							
Financial Income							
Fair Value movements on derivatives	Growth rate	-100%	0%	0%	0%	0%	Hard to predict so we assume equal to 0.
Interest income	% of Revenues	0.26%	0.26%	0.26%	0.26%	0.26%	Average of Interst Income as % of Revenues (2015-2018)
Other Financial Income	% of Revenues	0.13%	0.13%	0.13%	0.13%	0.13%	Average of Other Financial Income as % of Revenues (2015-2018)
Foreign exchange gains	Growth rate	-100%	0%	0%	0%	0%	Hard to predict so we assume equal to 0.
Financial Costs							
Fair value movements on derivative liabilities	Growth rate	-100%	0%	0%	0%	0%	Hard to predict so we assume equal to 0.
Fair Value movements on convertible notes	Growth rate	-100%	0%	0%	0%	0%	Hard to predict so we assume equal to 0.
Interest, bank fees and other costs	Growth rate	-100%	0%	0%	0%	0%	Since there is no debt we assume this equal to 0.
Foreign exchange losses	Growth rate	-100%	0%	0%	0%	0%	Hard to predict so we assume equal to 0.
Share in (losses)/earnings of associate	Growth rate	-100%	0%	0%	0%	0%	As it depends on the profitability of associated companies and is hard to predict, we assumed it will be equal to 0.
Taxes							
Tax Rate	Effective	24.94%	24.94%	24.94%	24.94%	24.94%	Equal to the combined Luxembourg effective tax rate plus solidarity surtax and municipal business tax. Source: PWC (http://taxsummaries.pwc.com/ID/Luxembourg-Corporate-Taxes-on-corporate-income)

BALANCE SHEET	Notes	2019F	2020F	2021F	2022F	2023F	Assumptions
Non-current Assets							
Total Capex	**% of Revenues**	**2.06%**	**2.06%**	**2.06%**	**2.06%**	**2.06%**	Total Capex = PP&E Capex + Leashold Improvement Capex + Intangible Assets Capex
PP&E	% of Revenues	0.15%	0.15%	0.15%	0.15%	0.15%	PP&E Capex estimated as % of Total Revenues, assumed a 0.15% constant rate of investment based on the historical 2 years average (2017-2018)
Leashold Improvements	% of Revenues	1.70%	1.70%	1.70%	1.70%	1.70%	Leashold Improvements Capex estimated as % of Total Revenues, assumed a 1.07% constant rate of investment based on the historical 2 years average (2017-2018)
Intangible Assets	% of Revenues	0.21%	0.21%	0.21%	0.21%	0.21%	Intangible Assets Capex estimated as % of Total Revenues, assumed a 0.33% constant rate of investment based on the historical 4 years average (2015-2018)
Total PP&E	**% of Total Capex**	**89.96%**	**89.96%**	**89.96%**	**89.96%**	**89.96%**	PP&E in t = PP&E in t-1 + Total Investment in t - Depreciation in t.
Intangible Assets	**% of Total Capex**	**10.04%**	**10.0%**	**10.0%**	**10.0%**	**10.0%**	Intangible Assets in t = Intangible Assets in t-1 + Total Investment in t - Amortization in t.
Goodwill	**Millions of €**	**300**	**0**	**0**	**0**	**0**	Goodwill will increase by 300 M€ due to the Acquisition of Anchor and Gimlet in 2019.
Investment in associate	Millions of €	0	0	0	0	0	As it is hard to predict, we assume no further investments will be made.
Long term investments	Millions of €	0	0	0	0	0	As it is hard to predict, we assume no further investments will be made.
Restricted cash and other non-current assets	% of Total Revenues	1.06%	1.06%	1.06%	1.06%	1.06%	Assumed equal to the average historical percentage over revenues (2015-2018).
Deferred tax assets	Growth Rate	0%	0%	0%	0%	0%	Equal to 2018F nominal value.
Current Assets							
Inventories	Millions of €	0	0	0	0	0	Spotify has no inventory.
Trade and other Receivables	% of Total Revenues	7.61%	7.61%	7.61%	7.61%	7.61%	It will grow according toTotal Revenues growth YoY.
Income Tax Receivable	Growth Rate	0%	0%	0%	0%	0%	Assumed equal to 2018 nominal value.
Short-Term Investments	Growth Rate	0%	0%	0%	0%	0%	Assumed equal to 2018 nominal value.
Ohter Current Assets	Growth Rate	0%	0%	0%	0%	0%	Assumed equal to 2018 nominal value.
Equity							
Share Capital	Growth Rate	0%	0%	0%	0%	0%	No share issue is expected, therefore equal to 2018 Nominal Value.
Other Paid-in Capital	Growth Rate	0%	0%	0%	0%	0%	Assumed equal to 2018 nominal value.
Treasury Shares	Millions of €	-137.67	0	0	0	0	According to 2018 Annual Report Spotify repurchased, after December 2018, 548,121 ordianry shares for 62M€; additionally it repurchased 471,288 shares for arround 75.67 M€ (assuming na EUR/USD of 1.1376 and of 1.1224 for 28/02/2019 and 31/03/2019 respectively).
Reserves	Millions of €	980	1,086	1,212	1,359	1,526	Equal to previous years amount plus share-based payments expenses not yet activated (check Cash Flow Statement Assumptions).
Accumulated Deficit	Millions of €	-2,395	-2,163	-1,769	-1,172	-341	Retained earnings t+1= Retained earnings t + Net Income t - Dividends
Non-current liabilities							
Convertible notes		0.00	0.00	0.00	0.00	0.00	Equal to 2018 Nominal Value
Accrued expenses and other liabilities	% of Revenues	1.62%	1.62%	1.62%	1.62%	1.62%	Will grow according to revenues
Provisions	Growth Rate	0%	0%	0%	0%	0%	Equal to 2018 Nominal Value
Deferred tax liabilities	Growth Rate	0%	0%	0%	0%	0%	Equal to 2018 Nominal Value
Current liabilities							
Trade and other payables	% of Cost of Revenue	10.93%	10.93%	10.93%	10.93%	10.93%	It will grow according to Cost of Revenues growth YoY.
Income tax payable	Growth Rate	0%	0%	0%	0%	0%	Equal to 2018 Nominal Value
Deferred revenue	% of Total Revenues	5.16%	5.16%	5.16%	5.16%	5.16%	Assumed equal to the average historical percentage over revenues (2015-2018)
Accrued expenses and other liabilities	% of Total Expenses	16.64%	16.64%	16.64%	16.64%	16.64%	Assumed equal to average historical percentage over total expenses (2014-2018)
Provisions	Growth Rate	0%	0%	0%	0%	0%	Equal to 2018 Nominal Value
Derivative liabilities	Growth Rate	0%	0%	0%	0%	0%	Equal to 2018F nominal value.

Cash Flow Statement	Notes	2019F	2020F	2021F	2022F	2023F	Assumptions
Share-Based Payments Expense	**Millions of €**	**105**	**106**	**126**	**147**	**167**	Equal to sum of each share.based payment expense related account.
Cost of Revenue	% of Cost of Revenue	0.06%	0.06%	0.06%	0.06%	0.06%	Computed as the average of the weight of cost of revenue over the historical period (2014-2018).
R&D	% of R&D	7.41%	7.41%	7.41%	7.41%	7.41%	Computed as the average of the weight of Research & Development over the historical period (2014-2018).
S&M	% of S&M	2.48%	2.48%	2.48%	2.48%	2.48%	Computed as the average of the weight of Sales & Management over the historical period (2014-2018).
G&A	% of G&A	9.89%	9.89%	9.89%	9.89%	9.89%	Computed as the average of the weight of General and Administrativeover the historical period (2014-2018).

Source: Authors estimations

Appendix 8: Revenues Forecast

Revenues	Notes	2019F	2020F	2021F	2022F	2023F
Total Revnues	**Million of €**	**6,816**	**8,341**	**9,948**	**11,587**	**13,162**
Growth (%)		30%	22%	19%	16%	14%
Premium Revenues	Million of €	**6,132**	**7,509**	**8,998**	**10,524**	**11,994**
Growth (%)		30%	22%	20%	17%	14%
Average Premium Subscribers	Millions	107.52	131.54	157.00	182.71	207.19
Growth (%)		32%	22%	19%	16%	13%
ARPU	€	4.75	4.76	4.78	4.80	4.82
Growth (%)		-1.20%	0.10%	0.40%	0.50%	0.50%
Months in a year		12	12	12	12	12
Average Premium Subscribers		108	132	157	183	207
Premium Users Beginning of the Period		96	119	144	170	195
Premium Users End of the Period		119	144	170	195	219
Growth (%)		24%	21%	18%	15%	12%
Add- Supported	**Million of €**	**684**	**832**	**950**	**1,063**	**1,168**
Growth (%)		26%	22%	14%	12%	10%
Adjustment (%)		-4%	-5%	-7%	-2%	-2%

Units: Millions of users or Millions of €

Source: Authors estimations

Notes:

- Total Revenues= Premium Revenues + Ad-Supported Revenues;
- Premium Revenues= Average Premium Subscribers * ARPU * 12 months;
- ARPU: In 2019 is projected that ARPU will decline as Spotify entered the Indian market (a market with lower disposable income), which will affect the average price of revenue received per user; after 2019, ARPU will follow industry movements, also no further entrance in emergent markets are expected (as the remaining markets still do not have possibility of digital payments);
- Average Premium Subscribers = Average (Premium Subscribers at the beginning of the period; Premium Subscribers at the end of the period);
- Premium subscribers at the end of the period: in 2019, we expect an overall decrease in the growth rate of end period premium subscribers, amounting to 24% (compared to 35% in 2018; additionally assumption is slightly more conservative than the one projected by the company); after 2019, we expect end period premium subscribers will always grow less 4% than in the previous period;

- Ad-Supported Revenues: We assumed that this business segment will converge to industry growth rate over the years. Although ad-supported has always been growing more than the digital advertising industry (video advertising, banner advertising and social media advertising). Additionally, in the first three years of valuation the decrease in the growth rate will be higher than the overall decrease in the industry, as we assumed that Spotify growth of ad-supported segment will converge to industry levels.

Appendix 9: WACC Assumptions

WACC and Valutaion Assumptions	2019F	2020F	2021F	2022F	2023F	2024F-2025F	2026F-2027F	TV	Assumptions
Capital Structure									
Debt Weight	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0.00%**	Spotiy had no debt in 2018 and as the Annual Report does not state any further information about the future capital structure, we assumed that Spotify's capital structure will be 100% equity throughout all valuation periods.
Equity Weight	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100.00%**	
Cost of Equity									
Risk Free Rate	**-0.33%**	**-0.33%**	**-0.33%**	**-0.33%**	**-0.33%**	**-0.33%**	**-0.33%**	**0.27%**	
Germany	-0.33%	-0.33%	-0.33%	-0.33%	-0.33%	-0.33%	-0.33%	0.27%	For the period between 2019-2027 we considered the forecast of the 10-year German Government Bond yield and for the terminal period the 30-year German Government Bond yield. Source: Bloomberg (19-07-2019 @15:23)
Maeket Risk Premium					**5.96%**				
Germany (Damodaran)					5.96%				Source: Damodaran (April 2019)
Operational Regions (Damodaran)					6.64%				Weigted average of operational revenue * respectively operational region ERP. Source: Damodaran
Germany (Fernandez)					5.70%				Source: Fernandez 2019
Levered Beta	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	Levered Beta computed by assuming unlevered beta equal to beta of the industry.
Beta Regression					0.071				
Beta (Slope)					1.380				
Unlevered Industry Beta					**1.206**				Sum of weigthed Unlevered Industry Betas in terms of Revenues.
Unlevered Beta (Media Industry)					1.240				Source: Damodaran (April 2019)
UnleveredBeta (Advertising Industry)					0.910				Source: Damodaran (April 2019)
Country Risk Premium					**0%**				Source: Damodaran (April 2019)
Cost of Debt									
Cost of debt					5.75%				Assumed equal to Cost of Debt of the Entertainment industry. Source: Damodaran
Terminal Period									
Normalized Period Growth Rate	n.m.	n.m.	n.m.	n.m.	n.m.	7.00%	5.00%	n.m.	Assumed 7% for the first 2 years of the Normalization period, around half of the revenues growth in 2023F; and, then assumed a negative adjustment of 2% from the 2024F-2025F growth rate.
Terminal growth rate					2.68%				Equal to the forecasted real GPD growth rate (2019-2024) weighted by the weight of each region where Spotify operates as of 2018. Source: Growth of real GDP per region from IMF.
Price Target									
No of shares outstanding	179.84	179.84	179.84	179.84	179.84	179.84	179.84	179.84	Assuming no additional shares will be bought.

Source: Authors Estimations

WACC Calculation	2019F	2020F	2021F	2022F	2023F	2024	2025	2026	2027	Terminal
Risk-Free Rate	-0.33%	-0.33%	-0.33%	-0.33%	-0.33%	-0.33%	-0.33%	-0.33%	-0.33%	0.27%
Equity Risk Premium	5.96%	5.96%	5.96%	5.96%	5.96%	5.96%	5.96%	5.96%	5.96%	5.96%
Country Risk Premium	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Beta Levereded	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21
Cost of Equity -Re	6.86%	6.86%	6.86%	6.86%	6.86%	6.86%	6.86%	6.86%	6.86%	7.46%
Rd	5.750%	5.750%	5.750%	5.750%	5.750%	5.750%	5.750%	5.750%	5.750%	5.750%
After Tax Cost of Debt	4.32%	4.32%	4.32%	4.32%	4.32%	4.32%	4.32%	4.32%	4.32%	4.32%
WACC										
E/EV	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
D/EV	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Pre-tax Wacc	6.86%	6.86%	6.86%	6.86%	6.86%	6.86%	6.86%	6.86%	6.86%	7.46%
After-tax WACC	**6.86%**	**6.86%**	**6.86%**	**6.86%**	**6.86%**	**6.86%**	**6.86%**	**6.86%**	**6.86%**	**7.46%**

Source: Authors Estimations

Appendix 10: Definitions and Valuation Models

Recommendations definitions for a High-Risk Stock:

- **Strong Buy:** The total upside potential must be larger than 45%, until the price target date. The Strong Buy recommendation implies that there is a high risk of an increase in price, consequently investors should buy now the stock as it is expected that will strongly appreciate.

- **Buy:** The total upside potential must be between 20% and 45%, until the price target date. The Buy recommendation suggest to investor that the price of the share under analysis will increase.

- **Hold/Neutral:** The total upside potential must be between 10% and 20%, until the price target date. The Hold recommendation implies that investors should neither buy nor sell the share.

- **Reduce:** The total upside potential must be between 0% and 10%, until the price target date. It is recommended to investors to decrease the number of shares of the company on their portfolio.

- **Sell:** The total upside potential must be below 0%, until the price target date. The Sell recommendation suggest to investors that there is a risk of a decrease in price.

Valuation Models

The models used to evaluate SPOT are the Discounted Cash Flow, through the Free Cash Flow to the Firm, Flow to Equity and Adjusted Present Value methods and the Relative Valuation Model.

Discounted Cash Flow Model: This model evaluates a company by discounting its future free cash flows at a specific discount rate (Stieger, 2008).

- Free Cash Flow to the Firm: This method evaluates a company by computing the net present value (NPV) of its free cash flows, which are the cash flows available both to equity and debt holders (Stieger, 2008), at the after-tax weighted average cost of capital (WACC). For the valuation of Spotify, we assumed that after 2027, it will be the perpetuity period, with the company growing at *g* rate. The following steps were done:

    1. $After - Tax\ WACC = \frac{E}{E+D} * Cost\ of\ Equity\ (ke) + \frac{D}{E+D} * Cost\ of\ Debt\ (Kd) * (1 - Tax\ Rate)$;

    2. $Ke = Risk\ Free + \beta * (Market\ Risk\ Premium) + Country\ Risk\ Premium$, assuming the Capital Asset Pricing Model;

    3. $FCFF = Net\ Operating\ Profit\ After\ Tax\ (NOPAT) + D\&A - CapEx - \Delta WC$;

    4. $Enterprise\ Value = \sum_{t=1}^{t=n} \left(\frac{FCFF_t}{(1+WACC)^t}\right) + \frac{(^{FCFF_n}/_{WACC-g})}{(1+WACC)^n}$, $FCFF_t$ is the FCFF for the year *t* and $FCFF_n$ is the FCFF in *perpetuity.*

- Adjusted Present Value: is the net present value (NPV) of ta company's free cash flows assuming it is only financed by equity then the present value of any financing side effect must be added, such as interest tax shield (Modigliani and Miller 1958). Therefore, first the company is evaluated without debt at the unlevered cost of equity (ku), and only after the present value of any financing side effect is added.

    1. $Entrepise\ Value = \sum_{t=1}^{t=n} \left(\frac{FCFF_t}{(1+ku)^t}\right) + \frac{(^{FCFF_n}/_{ku-g})}{(1+ku)^n} + PV(ITS)$

- Flow to Equity: This method evaluates a company by computing the net present value of the cash flows available to the firm's equity holders, FCFE, discounted at the cost of equity rate (Stieger, 2008).

    1. $FCFE = Net\ Operating\ Profit\ After\ Tax + D\&A - CapEx - \Delta WC - (New\ Debt\ Issued - Debt\ Repayment)$;

    2. $Enterprise\ Value = \sum_{t=1}^{t=n} \left(\frac{FCFE_t}{(1+ke)^t}\right) + \frac{(^{FCFE_n}/_{ke-g})}{(1+ke)^n}$, $FCFE_t$ is the FCFE for the year *t* and $FCFE_n$ is the FCFE in *perpetuity.*

Relative Valuation Model: This method values a company by comparing it to similar companies based on their value. First, it is necessary to identify the comparable companies. Then it is necessary to obtain the multiples information on the chosen companies, and finally compare it to the company you are evaluating, controlling for any differences that can affect your evaluation result.

Appendix 11: Free Cash Flow to the Firm Analysis

FCFF	2019F	2020F	2021F	2022F	2023F	2024F	2025F	2026F	2027F	TV
Sales	6,816	8,341	9,948	11,587	13,162	14,083	15,069	15,822	16,613	17,059
EBITDA	183	363	603	900	1,248	1,335	1,428	1,500	1,575	1,617
EBITDA/Sales	2.7%	4.4%	6.1%	7.8%	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%
Depreciation & Amortization	63	87	116	151	191	175	187	196	206	249
EBIT	120	276	487	749	1,057	1,160	1,242	1,304	1,369	1,368
EBIT/Sales	1.8%	3.3%	4.9%	6.5%	8.0%	8.2%	8.2%	8.2%	8.2%	8.0%
CAPEX	141	172	205	239	271	211	226	237	249	249
Working Capital Requirements	-340	-410	-478	-543	-599	-674	-721	-757	-795	-816
Change in WC	-90	-70	-69	-65	-56	-75	-47	-36	-38	-21
Tax Expense	30	69	121	187	264	289	310	325	341	341
EBIT*(1-Tc)	90	207	365	562	793	871	932	979	1,028	1,027
Others	105	106	126	147	167	186	199	209	220	226
FCFF	**208**	**298**	**471**	**686**	**936**	**1,095**	**1,139**	**1,183**	**1,242**	**1,274**

Units: Millions of €

Source: Authors estimations

Price - Target (2020)	
TV	26,689
PV(TV)	16,776
PV (FCFF)	5,339
Entity Value	22,115
Net Debt	-1,296
Intrinsic Value of Equity	**23,411**
# of share	179.84
Price- Target (€)	**130.18 €**
EUR/USD (23/05/2019)	1.12
Price- Target ($)	**$ 145.21**
Closing Price May 23rd ($)	$ 121.58
Upside Potential	19.44%

Units: Millions of €

Source: Authors estimations

Notes: 1) Others include share-based payments. These payments are included in the operational costs of the company; however, Spotify adds them back to obtain operational cash flow, meaning that no cash outflow occurred. Therefore, we add these payments to compute the FCFF;

2) Normalization Period (2024F-2027F) we assumed that CapEx will increase at a slower pace than before, being 1.5% of the sales of the respective year; Depreciation and Amortization will be equal to the average of the previous year's weight over sales, as Working Capital Requirement and others.

Appendix 12: Adjusted Present Value Analysis

APV	2019F	2020F	2021F	2022F	2023F	2024F	2025F	2026F	2027F	TV
FCFF	208	298	471	686	936	1,095	1,139	1,183	1,242	1,274
PVt	4,996	5,339	5,387	5,253	4,880	4,215	3,334	2,345	0	
Debt Capacity	0	0	0	0	0	0	0	0	0	0
Interest Payments	0	0	0	0	0	0	0	0	0	0
ITS	0	0	0	0	0	0	0	0	0	0

Units: Millions of €

Source: Authors estimations

Price - Target (2020)	
Unlevered EV	5,339
PV (ITS)	0
TV	26,689
PV (TV)	16,776
Entity Value	22,115
Net Debt	-1,296
Intrinsic Value of Equity	**23,411**
# of Sares	179.84
Price- Target (€)	**130.18 €**
EUR/USD (23/05/2019)	1.12
Price- Target ($)	**$ 145.21**
Closing Price May 23rd ($)	$ 121.58
Upside Potential	**19.44%**

Units: Millions of €

Source: Authors estimations

Appendix 13: Flow to Equity Analysis

FTE	2019F	2020F	2021F	2022F	2023F	2024F	2025F	2026F	2027F	TV
FCFF	208	298	471	686	936	1,095	1,139	1,183	1,242	1,274
Interest Payments	0	0	0	0	0	0	0	0	0	
Debt Capacity	0	0	0	0	0	0	0	0	0	
Net New Borrowing	0	0	0	0	0	0	0	0	0	0
FCFE	**208**	**298**	**471**	**686**	**936**	**1,095**	**1,139**	**1,183**	**1,242**	**1,274**

Units: Millions of €

Source: Authors estimations

Price - Target (2020)	
PV (TV)	16,776
Entity value	22,115
Net Debt	-1,296
Intrinsic Value of Equity	**23,411**
# of Sares	179.8
Price- Target (€)	**130.18 €**
EUR/USD (23/05/2019)	1.12
Price- Target ($)	**$ 145.21**
Closing Price May 23rd ($)	$ 121.58
Upside Potential	**19.44%**

Units: Millions of €

Source: Authors estimations

Appendix 14: Peers Data

Company	Ticker	Industry	Mkt. Cap. ($)	Price	Beta
Spotify Technology S.A.	**SPOT:NYSE**	**Internet Media**	**21.69B**	**120.68$**	**n.m.**
Netflix INC	NFLX:NASDAQSQ	Internet Media	118.544B	270.75$	1.20
ALPHABET INC	GOOGL:NASDAQ	Internet Media	852.755B	1229.84$	1.00
AMAZON.COM INC	AMZN:NASDAQ	Consumer Services	887.492B	1794.16$	1.55
APPLE INC	AAPL:NASDAQ	Hardware	868,343	217.73$	1.24
Pandora Media LLC	n.m.	Internet Media	n.m.	n.m.	n.m.
Radioio Inc	RAIO**	Internet Media	41.12k	0.006$	-2.27
SIRIUS XM HOLDINGS INC*	SIRI:NASDAQ	Media	27.86B	6.26$	1.00
Tencent Music Entertainment	TME:NYSE	Internet Media	22.21B	13.58$	n.m.

* SIRIUS XM Holdings INC is the parent of Pandora Media LLC; ** exchanged through OTC.

Source: Financial Times (20/09/2019)

In the industry where SPOT operates, most of its peers that provide a similar product or are quite small, not having a lot of data available, or are part of a larger company with other strong sources of revenues. The following companies are the ones that are or have services similar to Spotify.

Netflix Inc. is a company that offers an internet subscription service to watch movies and shows, with subscribers being able to watch unlimited movies and television shows streamed over the internet in different devices. Additionally, in the United States, subscribers can receive standard DVDs delivered to their houses. Although not a direct competitor of Spotify, its business model is quite similar.

Alphabet Inc.: through its subsidiaries provides web-based search, advertisements, maps, software applications, mobile operating systems, consumer content, enterprise solution, e-commerce and hardware products. It is the owner of YouTube and Google music, both competitors of Spotify, however Alphabet Inc. has other large sources of revenues, which offset the quality of comparison between Spotify and this company.

AMAZON.COM Inc.: operates as an online retailer, offering a wide range of products. Recently, through Amazon Premium Music started its operations in the Music Streaming Industry.

APPLE Inc.: manufactures, designs and markets mobile communication devices, computers and a wide range of other devices, entered in the music streaming industry through Apple Music to improve its offer in terms of mobile app services provided to its users. (Biggest competitor of Spotify)

Pandora Media LLC.: Owned by SIRIUS XM Holdings Inc., is a music and podcast discovery platform. It also offers the possibility to stream radio stations on your mobile devices.

Radioio Inc.: operates in the internet media industry, providing an internet platform that streams music in a wide range of different devices.

Sirius XM Holdings Inc.: provides its services in the United States through a monthly subscription fee, in exchange provides streams of commercial-free music, news, sports, weather, podcasts, and radio.

Tencent Music Entertainment: it is an online music entertainment platform in China, it offers online music, live streaming of performance and shows. Additionally, Spotify has shares of this company.

Appendix 15: Relative Valuation

The relative valuation was done, however the results for our final recommendation are withdrawn from the FCFF method. We did the relative analysis comparing Spotify to all companies and also with each company individually.

Additionally, we proceed this model by using the following multiples EV/EBITDA, EV/Revenues and P/E. However, the one which is considered appropriate in this analysis for companies in this industry is EV/Revenues, as Spotify operates in an industry with firms presenting high growth rates and losses (Damodaran 2012). The following paragraphs present some comments on the companies chosen.

We do not think that Apple, Amazon or Google are adequate comparable, although being the biggest competitors that Spotify is facing, they are mature companies that are not financially dependent on the music streaming services that they provide. Therefore, even though the analysis was done, we do not consider these results in our analysis.

Even though Netflix does not operate in the same industry as Spotify, it operates in the video streaming industry, its business model is really similar to the one provided by Spotify. Thus, we compared the two companies, resulting in a Strong Buy recommendation when compared to any of the multiples chosen.

The companies that are the best peers to compare Spotify with are Pandora, Radioio Inc, Sirius and Tencent Music Entertainment. However, Radioio Inc. had no data available and Pandora Inc. is owned by Sirius. Additionally, as these companies are small or recent in the industry there is not a lot of data available or the companies have been showing losses.

Consequently, our best comparable companies are Sirius and Netflix, both providing a Strong buy recommendation when using the EV/Revenues multiple, the most appropriate to use.

	EV/EBITDA								Average
Company	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**	**29.90**
ALPHABET INC	17.49	19.1	15.33	18.83	13.98	16.69	11.36	12.46	15.66
AMAZON.COM INC	26.85	37.17	28.62	37.12	29.04	44.39	37.89	36.7	34.72
APPLE INC	11.62	8.91	6.39	6.04	7.79	5.46	8.63	8.26	7.89
Netflix INC	73.1	95.4	125.47	133.14	43.61	76.77	48.17	7.72	75.42
Pandora	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.
Radioio Inc	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.
SIRIUS XM HOLDINGS INC	15.61	15.96	15.71	18.12	17.39	19.06	15.04	9.61	15.81
Tencent Music Entertainment	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.

Source: Bloomberg

EV/EBTIDA		
Company	**Recommendation**	**Target Price**
All	Sell	$ 75.39
Netflix	Strong Buy	$ 177.92
Sirius	Sell	$ 43.65

Note: Although we did this exercise, we do not believe that EV/EBITDA is an adequate metric to evaluate SPOT, as other companies that only operate in the Music Streaming Industry have also been experiencing negative EBITDA (like Pandora, Radioio Inc and TME).

EV/Revenues									Average
Company	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**	**3.71**
ALPHABET INC	4.52	5.7	5.07	6.13	4.55	5.82	4.15	4.47	5.05
AMAZON.COM INC	3.2	3.26	2.59	2.95	1.61	2.38	1.76	1.48	2.40
APPLE INC	3.58	2.78	2.09	2.13	2.58	1.78	3.23	2.72	2.61
Netflix INC	7.81	7.43	6.21	7.23	3.62	4.86	1.27	1.01	4.93
Pandora	n.m.	1	2.29	2.47	n.m.	n.m.	n.m.	n.m.	1.92
Radioio Inc	n.m.	n.m.	n.m.	n.m.	n.m.	2.62	6.78	6.7	n.m.
SIRIUS XM HOLDINGS INC	5.48	5.7	5.33	5.75	5.77	6.51	5.03	3.01	5.32
Tencent Music Entertainment	14.75	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.

Source: Bloomberg

EV/Revenues		
Company	**Recommendation**	**Target Price**
All	Strong Buy	$ 199.79
Netflix	Strong Buy	$ 263.09
Sirius	Strong Buy	$ 283.40
TME	Strong Buy	$ 771.14
Pandora	Sell	$ 96.25

Note: As we can see from the conclusions, most of the recommendations are for investors to buy Spotify shares, mainly Strong Buy recommendations.

We believe that this metric, EV/Sales, is an adequate metric to evaluate Spotify, as the music streaming industry presents mainly young growth companies with losses. Although, our final recommendation is still a HOLD recommendation based on the FCFF method.

P/E									Average
Company	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**	**123.91**
ALPHABET INC	24.46	48.3	28.21	36.04	26.55	28.81	20.89	21.2	29.31
AMAZON.COM INC	74.54	256.6	152.7	537.78	n.m.	649.06	662.73	126.87	351.47
APPLE INC	19.02	16.9	13.65	12.43	15.57	12.14	15.11	14.61	14.93
Netflix INC	99.87	143.8	287.91	408.5	79.08	173.76	319.28	16.66	191.11
Pandora	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.
Radioio Inc	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.
SIRIUS XM HOLDINGS INC	21.44	27.86	27.5	38.9	41.74	42.82	N.A.	28.82	32.73
Tencent Music Entertainment	156.78	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.

Source: Bloomberg

P/E		
Company	**Recommendation**	**Target Price**
All	strong buy	$ 178.17
Netflix	Strong Buy	$ 274.80
Sirius	Sell	$ 47.06

Note: Although we did this exercise, the Net Profit of Spotify in the past has always been negative, as most of the companies that solely operate in the music streaming industry. Consequently, we do not believe that P/E is an adequate metric to evaluate SPOT.

Appendix 16: Sensitivity Analysis

Share Repurchase Program – Liquidity Ratios

Scenario Summary		Current Values:	Scenario1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Shares Repurchased (amount spent)							
2019		-137.67	-150.00	-150.00	-200.00	-200.00	-150.00
2020		0	-150	-200	-250	-300	-50
2021		0	-150	-200	-100	-250	-50
2022		0	0	0	0	0	0
2023		0	0	0	0	0	0
Liquidity Ratios Effect:							
Cash Ratio (x)	**2019**	0.92x	0.92x	0.92x	0.90x	0.90x	0.92x
	2020	1.03x	0.97x	0.95x	0.92x	0.90x	1.01x
	2021	1.16x	1.06x	1.03x	1.03x	0.97x	1.13x
	2022	1.32x	1.24x	1.21x	1.21x	1.16x	1.29x
	2023	1.52x	1.45x	1.42x	1.42x	1.37x	1.49x
Quick Ratio (x)	**2019**	0.71x	0.70x	0.70x	0.68x	0.68x	0.70x
	2020	0.80x	0.74x	0.73x	0.69x	0.67x	0.78x
	2021	0.93x	0.83x	0.80x	0.80x	0.74x	0.89x
	2022	1.08x	1.00x	0.97x	0.97x	0.91x	1.05x
	2023	1.27x	1.20x	1.17x	1.17x	1.12x	1.25x
Cash Ratio (x)	**2019**	0.31x	0.30x	0.30x	0.28x	0.28x	0.30x
	2020	0.46x	0.40x	0.39x	0.35x	0.33x	0.44x
	2021	0.63x	0.53x	0.50x	0.50x	0.44x	0.60x
	2022	0.82x	0.74x	0.71x	0.71x	0.65x	0.79x
	2023	1.04x	0.96x	0.94x	0.94x	0.89x	1.01x

Note: Assuming shares bought at na average price of $121.58 per share.

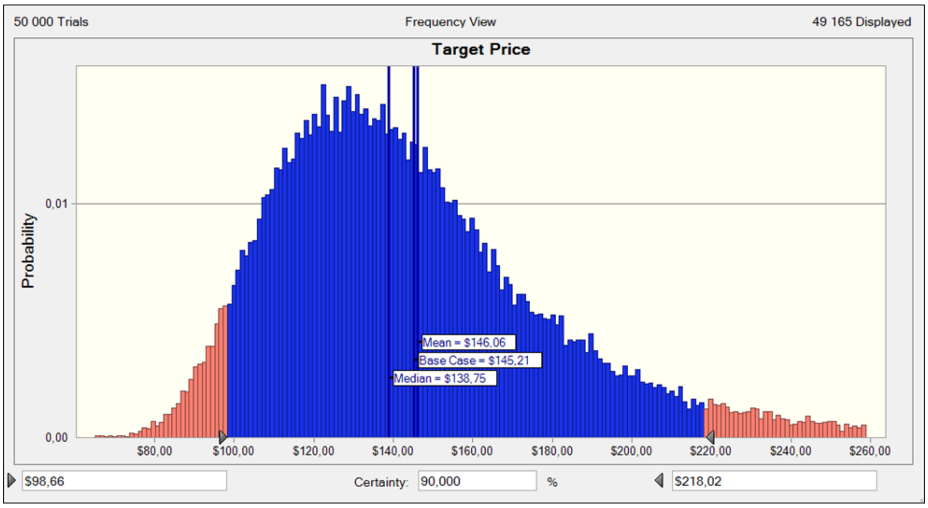
Source: Authors Estimations

Monte Carlo Simulation

Variable	Mean	Std. Deviation	Distribution	Sensitivity
Tax Rate	24.9%	2.5%	Normal	-0.60%
Risk-free (Valuation + Normalization Period)	-0.3%	0.3%	Normal	-0.20%
Perpetuity Risk-free Rate	0.3%	0.1%	Normal	-0.30%
Premium Users Growth in 2019	24.0%	2.5%	Normal	11.20%
Market Risk Premium	6.0%	0.6%	Normal	-33.70%
2024F-2025F Growth Rate	7.0%	1.0%	Normal	1.80%
Capex/Sales (2024-TV)	1.5%	0.2%	Normal	-0.10%
D&A/Sales(2024-TV)	1.2%	0.1%	Normal	n.m.
WCR/Sales (2024-TV)	-4.8%	0.5%	Normal	-8.80%
Perpetuity Growth Rate	2.7%	0.8%	Normal	24.20%
Unlevered Beta	1.21	0.10	Normal	-23.40%

Source: Authors Estimations

Monte Carlo	
Percentiles:	**Forecast values**
0%	$65.13
10%	$105.78
20%	$115.44
30%	$123.36
40%	$130.97
50%	$138.75
60%	$147.21
70%	$157.13
80%	$170.95
90%	$193.81
100%	$1,323.00



Source: Authors Estimations

Additional Sensitivity Analysis:

- Perpetuity Growth Rate and Tax Rate

Stress Variables		Perpetuity Growth Rate												
	$ 145.21	1%	1.50%	2%	2.10%	2.20%	2.30%	2.40%	2.53%	2.68%	2.70%	2.80%	3.00%	4.00%
Tax Rate	20%	$121.60	$128.95	$137.64	$139.58	$141.58	$143.67	$145.84	$148.81	$152.50	$152.89	$155.44	$160.88	$197.56
	21%	$120.43	$127.71	$136.32	$138.23	$140.22	$142.28	$144.43	$147.37	$151.03	$151.41	$153.93	$159.32	$195.64
	22%	$119.27	$126.47	$134.99	$136.88	$138.85	$140.89	$143.02	$145.93	$149.55	$149.93	$152.43	$157.77	$193.72
	23%	$118.10	$125.23	$133.66	$135.54	$137.48	$139.51	$141.61	$144.50	$148.07	$148.45	$150.92	$156.21	$191.79
	24%	$116.93	$123.99	$132.33	$134.19	$136.12	$138.12	$140.20	$143.06	$146.60	$146.97	$149.42	$154.65	$189.87
	24.94%	$115.83	$122.82	$131.09	$132.92	$134.83	$136.82	$138.88	$141.70	$145.21	$145.58	$148.00	$153.18	$188.06
	26%	$114.60	$121.50	$129.68	$131.50	$133.38	$135.34	$137.38	$140.18	$143.65	$144.01	$146.41	$151.53	$186.02
	27%	$113.43	$120.26	$128.35	$130.15	$132.02	$133.96	$135.97	$138.74	$142.17	$142.53	$144.90	$149.97	$184.10
	28%	$112.26	$119.02	$127.02	$128.80	$130.65	$132.57	$134.56	$137.30	$140.70	$141.05	$143.40	$148.41	$182.17
	29%	$111.09	$117.78	$125.70	$127.46	$129.28	$131.18	$133.15	$135.86	$139.22	$139.57	$141.89	$146.85	$180.25

Source: Authors Estimations

Results: We can see that if the perpetual growth rate increases by only 0.12% (being 2.8%), our recommendation would change to a Buy recommendation, with the price per share increasing around 3$. Additionally, if we look for changes in tax rate, if this variable decreases by around 1% our recommendation would change to a Buy recommendation, reflecting an increment of around 1.39$. Overall, if these variables suffer a slight improvement our recommendation can change.

- Perpetuity WACC and Valuation and Normalization Period WACC

Stress Variables		Perpetuity WACC										
	$ 145.21	5.00%	5.50%	6.00%	6.50%	7.00%	7.50%	**7.46%**	8.00%	8.50%	9.00%	10.00%	10.50%
	4.50%	$295.09	$ 250.56	$ 219.46	$ 196.51	$ 178.87	$ 164.90	$ 165.97	$ 153.56	$ 144.17	$136.26	$123.70	$ 118.62
	5.00%	$286.14	$ 243.07	$ 212.99	$ 190.80	$ 173.74	$ 160.23	$ 161.27	$ 149.26	$ 140.18	$132.53	$120.38	$ 115.47
	5.50%	$277.52	$ 235.86	$ 206.76	$ 185.29	$ 168.80	$ 155.73	$ 156.73	$ 145.12	$ 136.33	$128.94	$117.18	$ 112.43
	6.00%	$269.22	$ 228.91	$ 200.76	$ 179.99	$ 164.03	$ 151.39	$ 152.35	$ 141.12	$ 132.62	$125.47	$114.09	$ 109.50
	6.50%	$261.21	$ 222.21	$ 194.98	$ 174.88	$ 159.44	$ 147.20	$ 148.14	$ 137.27	$ 129.04	$122.12	$111.12	$ 106.67
Valuation and Normalization Perido WACC	**6.86%**	$255.66	$ 217.57	$ 190.96	$ 171.33	$ 156.25	$ 144.30	**$ 145.21**	$ 134.60	$ 126.56	$119.80	$109.05	$ 104.71
	7.00%	$253.50	$ 215.76	$ 189.40	$ 169.95	$ 155.00	$ 143.16	$ 144.07	$ 133.55	$ 125.59	$118.89	$108.24	$ 103.94
	7.50%	$246.06	$ 209.53	$ 184.02	$ 165.19	$ 150.73	$ 139.27	$ 140.15	$ 129.97	$ 122.26	$115.78	$105.47	$ 101.30
	8.00%	$238.89	$ 203.53	$ 178.83	$ 160.61	$ 146.61	$ 135.51	$ 136.36	$ 126.51	$ 119.05	$112.77	$102.79	$ 98.76
	8.50%	$231.97	$ 197.74	$ 173.83	$ 156.18	$ 142.63	$ 131.89	$ 132.71	$ 123.17	$ 115.95	$109.87	$100.21	$ 96.30
	9.00%	$225.30	$ 192.15	$ 169.00	$ 151.91	$ 138.79	$ 128.39	$ 129.18	$ 119.94	$ 112.95	$107.07	$ 97.71	$ 93.93
	9.50%	$218.87	$ 186.76	$ 164.34	$ 147.79	$ 135.08	$ 125.01	$ 125.78	$ 116.83	$ 110.06	$104.36	$ 95.30	$ 91.64
	10.00%	$212.66	$ 181.56	$ 159.84	$ 143.81	$ 131.50	$ 121.74	$ 122.49	$ 113.82	$ 107.27	$101.74	$ 92.97	$ 89.42

Source: Authors Estimations

Results: Both valuation, normalization and Perpetual WACC are variables that have a major impact on our recommendation. As it can be seen, slight changes in these variables can change our final recommendation.

- ARPU Growth Rate (2019) and Growth of Premium users in 2019

Stress Variables		ARPU Growth Rate (2019)										
	$ 145.21	-3.00%	-2.50%	-2.00%	**-1.20%**	-0.50%	0.00%	0.25%	0.50%	1.00%	1.50%	2.00%
Growth of Premium Users (2019F)	15.00%	$ 106.83	$ 107.32	$ 107.82	$ 108.62	$ 109.32	$ 109.82	$ 110.06	$ 110.31	$ 110.81	$ 111.31	$ 111.81
	16.00%	$ 110.37	$ 110.88	$ 111.40	$ 112.22	$ 112.95	$ 113.46	$ 113.72	$ 113.98	$ 114.50	$ 115.01	$ 115.53
	17.00%	$ 114.01	$ 114.55	$ 115.08	$ 115.94	$ 116.69	$ 117.22	$ 117.49	$ 117.76	$ 118.29	$ 118.82	$ 119.36
	18.00%	$ 117.77	$ 118.32	$ 118.88	$ 119.76	$ 120.54	$ 121.09	$ 121.37	$ 121.65	$ 122.20	$ 122.75	$ 123.31
	19.00%	$ 121.64	$ 122.21	$ 122.78	$ 123.70	$ 124.50	$ 125.08	$ 125.37	$ 125.65	$ 126.23	$ 126.80	$ 127.37
	20.00%	$ 125.62	$ 126.21	$ 126.81	$ 127.76	$ 128.59	$ 129.18	$ 129.48	$ 129.78	$ 130.37	$ 130.97	$ 131.56
	21.00%	$ 129.72	$ 130.34	$ 130.95	$ 131.94	$ 132.80	$ 133.41	$ 133.72	$ 134.03	$ 134.64	$ 135.26	$ 135.87
	22.00%	$ 133.94	$ 134.58	$ 135.22	$ 136.23	$ 137.13	$ 137.76	$ 138.08	$ 138.40	$ 139.03	$ 139.67	$ 140.31
	23.00%	$ 138.29	$ 138.95	$ 139.61	$ 140.66	$ 141.58	$ 142.24	$ 142.57	$ 142.90	$ 143.56	$ 144.22	$ 144.87
	24.00%	$ 142.76	$ 143.44	$ 144.12	**$ 145.21**	$ 146.17	$ 146.85	$ 147.19	$ 147.53	$ 148.21	$ 148.89	$ 149.57
	25.00%	$ 147.36	$ 148.06	$ 148.77	$ 149.90	$ 150.88	$ 151.59	$ 151.94	$ 152.29	$ 153.00	$ 153.70	$ 154.41
	26.00%	$ 152.09	$ 152.82	$ 153.55	$ 154.71	$ 155.73	$ 156.46	$ 156.83	$ 157.19	$ 157.92	$ 158.65	$ 159.38
	27.00%	$ 156.96	$ 157.71	$ 158.46	$ 159.67	$ 160.72	$ 161.48	$ 161.85	$ 162.23	$ 162.98	$ 163.74	$ 164.49

Source: Authors Estimations

Results: We decided to test the impact of these two variables on our recommendation as the Premium Segment represents around 90% of Spotify revenues. We can see that the Growth of Premium Users will have a stronger impact than the ARPU growth rate. If we started with a growth rate of 21% in 2019 of Premium users our recommendation would be a Reduce recommendation, if it was 25% (only 1% higher than in our base case) we would have a Buy recommendation. ARPU Growth Rate also has a strong impact on our recommendation.

- Premium Users Growth Rate and Ad-Supported Revenues Growth Rate

Stress Variables		Ad-Supported Growth Rates (2019F)													
	$ 145.21	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%	**26%**	27%
Growth of Premium Users (2019F)	15%	$ 106.96	$ 107.07	$ 107.18	$ 107.30	$ 107.43	$ 107.55	$ 107.69	$ 107.82	$ 107.96	$ 108.11	$ 108.26	$ 108.41	$ 108.62	$ 108.74
	16%	$ 110.57	$ 110.68	$ 110.79	$ 110.91	$ 111.03	$ 111.16	$ 111.29	$ 111.43	$ 111.57	$ 111.71	$ 111.86	$ 112.02	$ 112.22	$ 112.34
	17%	$ 114.28	$ 114.39	$ 114.51	$ 114.63	$ 114.75	$ 114.88	$ 115.01	$ 115.14	$ 115.28	$ 115.43	$ 115.58	$ 115.73	$ 115.94	$ 116.05
	18%	$ 118.11	$ 118.22	$ 118.34	$ 118.45	$ 118.58	$ 118.70	$ 118.83	$ 118.97	$ 119.11	$ 119.25	$ 119.40	$ 119.56	$ 119.76	$ 119.88
	19%	$ 122.05	$ 122.17	$ 122.28	$ 122.40	$ 122.52	$ 122.65	$ 122.78	$ 122.91	$ 123.05	$ 123.19	$ 123.34	$ 123.50	$ 123.70	$ 123.82
	20%	$ 126.12	$ 126.23	$ 126.34	$ 126.46	$ 126.58	$ 126.70	$ 126.83	$ 126.97	$ 127.11	$ 127.25	$ 127.40	$ 127.55	$ 127.76	$ 127.88
	21%	$ 130.30	$ 130.41	$ 130.52	$ 130.64	$ 130.76	$ 130.88	$ 131.01	$ 131.15	$ 131.29	$ 131.43	$ 131.58	$ 131.73	$ 131.94	$ 132.05
	22%	$ 134.60	$ 134.71	$ 134.82	$ 134.94	$ 135.06	$ 135.19	$ 135.32	$ 135.45	$ 135.59	$ 135.73	$ 135.88	$ 136.03	$ 136.23	$ 136.35
	23%	$ 139.03	$ 139.14	$ 139.25	$ 139.37	$ 139.49	$ 139.61	$ 139.74	$ 139.88	$ 140.01	$ 140.16	$ 140.30	$ 140.46	$ 140.66	$ 140.78
	24%	$ 143.59	$ 143.69	$ 143.81	$ 143.92	$ 144.04	$ 144.17	$ 144.30	$ 144.43	$ 144.57	$ 144.71	$ 144.86	$ 145.01	**$ 145.21**	$ 145.33
	25%	$ 148.27	$ 148.38	$ 148.49	$ 148.61	$ 148.73	$ 148.85	$ 148.98	$ 149.12	$ 149.25	$ 149.40	$ 149.54	$ 149.69	$ 149.90	$ 150.01
	26%	$ 153.10	$ 153.20	$ 153.31	$ 153.43	$ 153.55	$ 153.67	$ 153.80	$ 153.94	$ 154.07	$ 154.21	$ 154.36	$ 154.51	$ 154.71	$ 154.83
	27%	$ 158.05	$ 158.16	$ 158.27	$ 158.39	$ 158.51	$ 158.63	$ 158.76	$ 158.89	$ 159.03	$ 159.17	$ 159.32	$ 159.47	$ 159.67	$ 159.78

Source: Authors Estimations

Results: Through the analysis of the impact of these two variables on our final recommendation we can restate that the Premium Segment is the most important segment, as if everything equal a change in the ad-supported growth rate will not change our recommendation (for the scenarios tested). However, just an increment of 1% in the growth of premium users will change our recommendation to a Buy Recommendation.

Appendix 17: SWOT Analysis

Strengths	Weaknesses
- Brand Recognition; - User-Friendly Service; - Competitive Product; - Content and Market Diversity; - Data	- Decreasing ARPU; - Internet Connectivity Necessity; - Lower revenues than competitors.

Opportunities	Threats
- Growing Industry; - Ecosystems; - Business and Market Growth - Mergers and Acquisitions; - Internet Improvements.	- Artists/Labels hostility; - Low Profitability Industry; - Regulations; - Exchange Rate Volatility.

Source: Authors Estimations

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Abbreviations

APV *Adjusted Present Value*

ARPU *Average Revenue Per User*

CapEx *Capital Expenditure*

CDS *Country Default Swap*

CFF *Cash Flow from Financing Activities*

CFI *Cash Flow from Investing*

CFO *Cash Flow from Operations*

D&A *Depreciations & Amortizations*

DRM *Digital Rights Management*

EBIT *Earnings Before Interest and Taxes*

EBITDA *Earnings Before Interest, Taxes, Depreciation and Amortization*

EV *Entreprise Value*

FCFE *Free Cash Flow to Equity*

FCFF *Free Cash Flow to the Firm*

FTE *Flow-to-Equity*

G&A *General & Administrative*

ITS *Interest Tax Shield*

Kd *Cost of Debt*

Ke *Cost of Equity*

MAUs *Monthly Active Users*

NPV *Net Present Value*

NYSE *New York Stock Exchange*

R&D *Research & Development*

RF *Risk Free Rate*

S&M *Sales & Management*

TV *Terminal Value*

WACC *Weighted Average Cost of Capital*