23 June 2020

Background:

Spotify is one of the world's most popular music streaming service with 299 million monthly-active users (MAUs) as of Q22020. Spotify hosts over 50 million tracks and over a million podcast titles and is available in nearly 80 countries with connection via the web, phones, smart TVs, and tablets. The company sets itself apart on the music side through its algorithmic and editorial playlists (the former created using the user's play history) and on the artist's side though its two sided market place and goal to ensure over 1 million artists can make a living of Spotify[1].

Financials Overview:

	2015-12	2016-12	2017-12	2018-12	2019-12
Revenue EUR Mil	1,940	2,952	4,090	5,259	6,764
Growth %		52.2	38.6	28.6	28.6
Gross Margin %	12	13.6	20.8	25.7	25.5
Operating Income EUR Mil	-235	-349	-378	-43	-73
Operating Margin %	-12	-11.8	-9.2	-0.8	-1.1
Net Income EUR Mil	-230	-539	-1,235	-78	-186
Earnings Per Share EUR	-1.37	-3.21	-6.93	-0.51	-1.03
Free Cash Flow EUR Mil	-87	74	133	219	438
Growth %		-185.1	79.7	64.7	100.0

Spotify has shown high-double digit top line growth, with operating margins become less and less negatives as gross margins have increased. The company is FCF positive with zero debt.

History:

Spotify was started in 2006 by Daniel Ek and Martin Lorentzon. Ek, now 37, had sold his company Advertigo to Lorentzon's company TraderDoubler. Ek has been an entrepreneur since he was 13 (making as much as $50,000/month creating websites for others) and was in a semi-retirement when he founded Spotify[2]. During this time music piracy was near its peak, and while companies like Napster had been shutdown, others like Limewire and Kazaa had taken its place. According to Ek the situation in his home country in Sweden had gotten so bad that the "Pirate Party" which pushed for the government to decriminalise illegal downloads, became the third largest political party in the country[3]. To put into perspective how damaging piracy was to the music industry, from 1999-2014 the global music industry shrank by 40%.[4] However Ek noticed that even though the end-product was free, the user experience was actually pretty bad when downloading music. Download times could be quite long and viruses were very common. So he went about thinking about how he could deliver the benefits downloading (ie a free product) without all the drawbacks, and not to mention illegality.

[1] Invest Like the Best Podcast episode EP 147 featuring Daniel Ek
[2] https://pando.com/2012/11/08/daniel-eks-impossible-thinking-started-at-age-13-with-a-web-development-mini-empire/
[3] Invest Like the Best Podcast episode EP 147 featuring Daniel Ek
[4] Spotify Investor Day presentation, March 2018

The idea behind Spotify is simple; license music legally and streams this for free (ad-supported) or for a small monthly fee (no ads) so that the user can have the world's music on their hard-drive (or now days phone/watch/tablet). However initially there was a lot of pushback from the record labels who were sceptical of this new model. So Ek decided to start just in Sweden (initially he wanted to start in more geographies), and had an easier time convincing labels there as the piracy situation had become so bad the labels had nothing to lose (Spotify also guaranteed them 1 year of revenue). The success of this pilot, allowed Spotify to convince labels in the UK and then in the US[5]. The other initial issue that Spotify faced is that in late 2000's, streaming speeds were also quite slow, and users have a very short attention span, so they had to build a lot of the tech themselves as well as show 'progress bars' while the song was loading to capture the user's attention.

Overtime these difficulties were overcome, and while we'll talk about Spotify's growth more below, the company's success took it to a landmark IPO in 2018, where it listed directly on the NYSE (the company did not issue any new shares). The reason for this is that they had no requirement for cash (and have raised or borrowed none between 2017-2019 besides cash from employee options vesting), and continue to survive of a negative working capital cycle (earn money monthly and pay record labels after the stream).

Current business

As of now the Spotify runs two major verticals on its platform, music and podcasts. The music business is highly dependent (although we argue it's more synergetic) on the big labels where the company does not enjoy exclusivity. The podcast business which initially captured users as an aggregator is now pushing for exclusive content deals to make users stickier. We will talk about each segment below, but first we will take a look at the business in aggregate.

As mentioned above, Spotify caters to two types of users; premium users (who pay anyway between US$4.50-17 equivalent depending on geography) and ad-supported users who pay nothing, but are targeting with ad's before/after songs and do not have access to all the features of the platform.

	2017				2018				2019				2020	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Users (MM)														
MAU	131	138	150	160	173	180	191	207	217	232	248	271	286	299
Growth YoY %					32%	30%	27%	29%	25%	29%	30%	31%	32%	29%
Premium	52	59	62	71	75	83	87	96	100	108	113	124	130	138
Growth YoY %					44%	41%	40%	35%	33%	30%	30%	29%	30%	28%
Premium Margin %	15.70%	24.10%	22.90%	25.30%	26.00%	26.90%	26.10%	27.30%	25.90%	27.20%	26.50%	26.90%	28.30%	28.10%
Ad-Supported	82	83	91	93	102	101	109	116	123	129	141	153	163	170
Growth YoY %					24%	22%	20%	25%	21%	28%	29%	32%	33%	32%
Ad-supported Margin %	-9.0%	13.6%	17.0%	18.6%	12.7%	16.3%	18.6%	22.1%	11.0%	15.8%	16.0%	15.4%	-6.6%	-11.9%
Premium/Total%	39%	41%	40%	43%	42%	45%	44%	45%	45%	45%	44%	45%	44%	45%

Total MAU's have been growing in the high 20% to low 30% consistently for the past several quarters, with premium growth stabilizing at around 30% for the time being. Premium users as a % of whole have

[5] Invest Like the Best Podcast episode EP 147 featuring Daniel Ek

growth from the high 30% in early 2017 to around 45% now. The ad-supported user base is an excellent customer acquisition tool with 60% of premium users once being ad-supported[6]. Further aggressive marketing campaigns (Like $0.99 for 3 months) have had a large impact on bringing up the number of paid subscribers. Monthly churn[7] has dropped from high-5% in early 2017 to the high-4% toward the 2019. This drop in churn has been driven by two main things in our opinion 1) the steady expansion of the music library, which doesn't just include new songs but old hits and nostalgic hits which make users stick the platform. As Ek says "If we can find you a content you love every month you will be our user for a while. It doesn't have to be something new." In 2019, users streamed more than 73 billion hours of content (amounts to ~50 minutes/MAU/day) which was up 34% yoy and up from around ~36 minutes at the beginning of 2015) The content itself creates a fly-wheel, and as stated in their 2018 Investor Day - the more a user discovers, the more they listen, the more they listen, the more artists come to the platform, the more artists on the platform, the more people discover on the platform.

Despite hitting nearly 300million active users the company does not think that they are anywhere near saturation and for them despite well-funded competitors in the space, they feel that the true competitor is still traditional radio. According to Deloitte, 3 billion people listen to radio weekly[8] and thus Spotify feels that they still have significant growth ahead of them. The logic behind why the company feels radio is their key competitor makes sense. Both products are free (ad-supported), are used for music discovery, and is available on a multitude of platforms.

Music Vertical:

To understand the music vertical we'll first discuss the supply side (artists) and then we will discuss the demands side (users).

The Supply Side (the costs):

One the supply side, Spotify gets most of its music content from the Big 4 record labels (Universal Music, Sony Music, Warner Music Entertainment, and the EMI Group). Now one of the key questions that investors had before Spotify's IPO was on these agreements and the power that the music industry had over the streaming service. Agreements with the labels are usually valid for 2 years, are a long-drawn-out process, with most of the details held close to the chest. Further it seems to be the fact that Spotify has to pay the labels (or whoever owns the rights to the music) per stream (rate is somewhere around $0.006 to $0.0084 per stream[9]), which on its own is not the makings of a great business model as Spotify has to pay more the bigger they grow. Given all this, it does seem that the record companies might have Spotify by the short-one. However, a quick read of WMG's 10K shows this not to be the case. According

[6] Spotify Investor Day presentation, March 2018
[7] "Premium churn ("Premium Churn") is a monthly measure defined as Premium Subscriber cancellations in the quarter indicated divided by the average number of daily Premium Subscribers in such quarter, which is then divided by three months. Annual figures are calculated by averaging Premium Churn for the four quarters in such fiscal" – From Spotify F1
[8] https://www2.deloitte.com/us/en/insights/industry/technology/technology-media-and-telecom-predictions/radio-revenue.html
[9] https://www.cnbc.com/2018/01/26/how-spotify-apple-music-can-pay-musicians-more-commentary.html

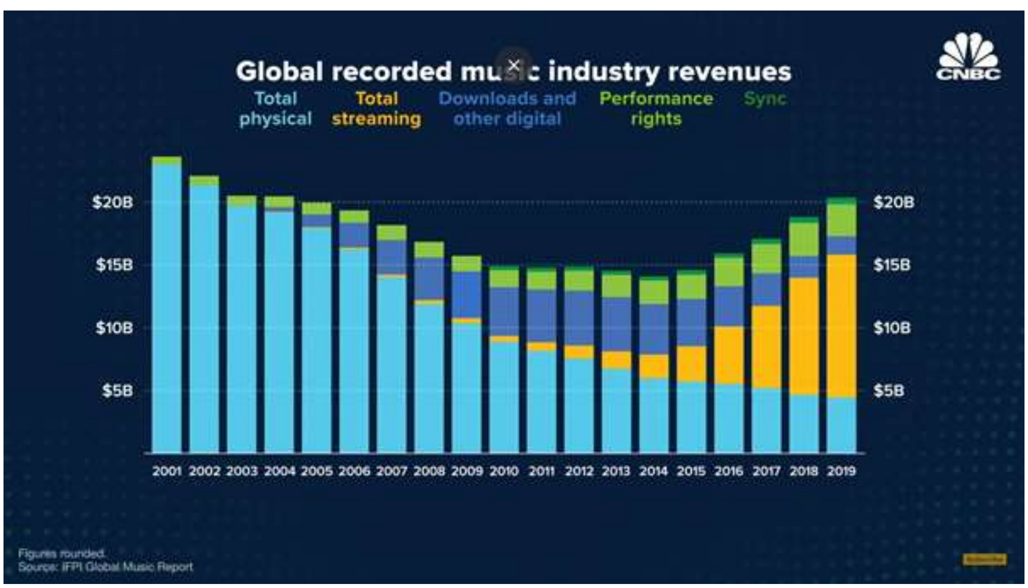
to the 10K WMG states that "from fiscal year 2015 to fiscal year 2018, our recorded music streaming revenue grew at a CAGR of 42% and increased as a percentage of our total recorded music revenues from 24% to 52%" and that "In fiscal year 2019, revenue earned under our license agreements with our top two digital music accounts, Apple and Spotify, accounted for approximately 27% of our total revenues." What this implies is that the relationship between the labels and the streaming services tend to be more synergetic. Further, above we stated that the music industry from 1999-2014 fell 40%, however with the rise of streaming services, the industry has started to grow again (see exhibit below on revenue reversal) – reversing the trend.


Warner Music Group Corp Ordinary Shares - Class A WMG

Financials

	2009-09	2010-09	2012-09	2013-09	2014-09	2015-09	2016-09	2017-09	2018-09	2019-09	TTM
Revenue USD Mil	3,176	2,984	2,780	2,871	3,027	2,966	3,246	3,576	4,005	4,475	4,509

A reading of Vivendi's (owner of Universal Music) annual report also shows a similar trend with the company attributing growth mainly to streaming revenues (up 21.5%) which have completely offset the decline in download sales (-23.2%). If we take a look at Spotify's own results, we see that overtime either due to scale or better negotiations, it's gross margins have increased from 11.6% in 2015 to over 25% currently. Thus this gives further credence to a more symbiotic relationship rather than one that has all the power. To illustrate the impact companies like Spotify have had on the music industry the below chart from CNBC showing in 2019 streaming made up 56% of revenues for the music industry[10].



Now one might ask, one way to remove this all together is for Spotify to start creating its own exclusive musical content, however Daniel Ek has stated this is not something they want to do. The reason for this

[10] https://www.youtube.com/watch?v=6viSSo12-PQ

is that he doesn't believe Spotify is disrupting the industry (nor should they), rather they are helping the industry evolve, and doesn't want to replace anyone.[11] Further, they know that artists make 80% of their money through tours, so need to distribute as many ways as possible (the more people that know about them the more tour tickets they sell), so it wouldn't be fair to artists to ask for exclusivity. Lastly Spotify does not want to compete with its suppliers (record labels).

That said, Spotify is not dumb, they do realise the more time an artist's engages with the platform the stronger the ecosystem becomes. For this they've launched their two-sided market place business where they have several tools to help artists and labels target, market, and earn. As we said above, Spotify has a goal for 1 million artists worldwide to be able to make a living using Spotify (granted this is vaguely defined). To do this they have several tools to help:

- In 2019 they acquired SoundBetter a marketplace to connect artists with the professionals (sound engineers, studio owners) to help them create content.
- In 2017 they acquired Soundtrap, which is an online studio for artists
- Spotify for Artists platform: Artists can claim their profile, make curated playlists to each their audience, view data on what songs are being streamed in what countries (for example Metallica changes its playlists while on tour depending on what songs are popular in each country), plan and promote concerts, create ads, and sponsor playlists. Spotify claims that Spotify for Artists provides "valuable analytics, identity management, and promotion tools with more than 465,000 monthly active artists, up 365% from the 100,000 announced at Investor Day. These monthly active artists account for ~80% of the streams on Spotify."
- Spotify Analytics: Tools for labels and distributors
- Spotify Publishing Analytics

Spotify does not really release the income they derive from these tools (it's all merged into either subscriber revenue or ad-base revenue) however they did say in the Q42019 earnings call that "For the full year 2019 paid marketplace tools combined with strategic licensing contributed more than €30 million in Gross Profit" and that for "For 2020, we expect growth in Marketplace contribution to be in excess of 50%." This is a hugely important evolution in the business as it moves it away from a low-margin streaming only company, to a more high-margin two-sided marketplace.

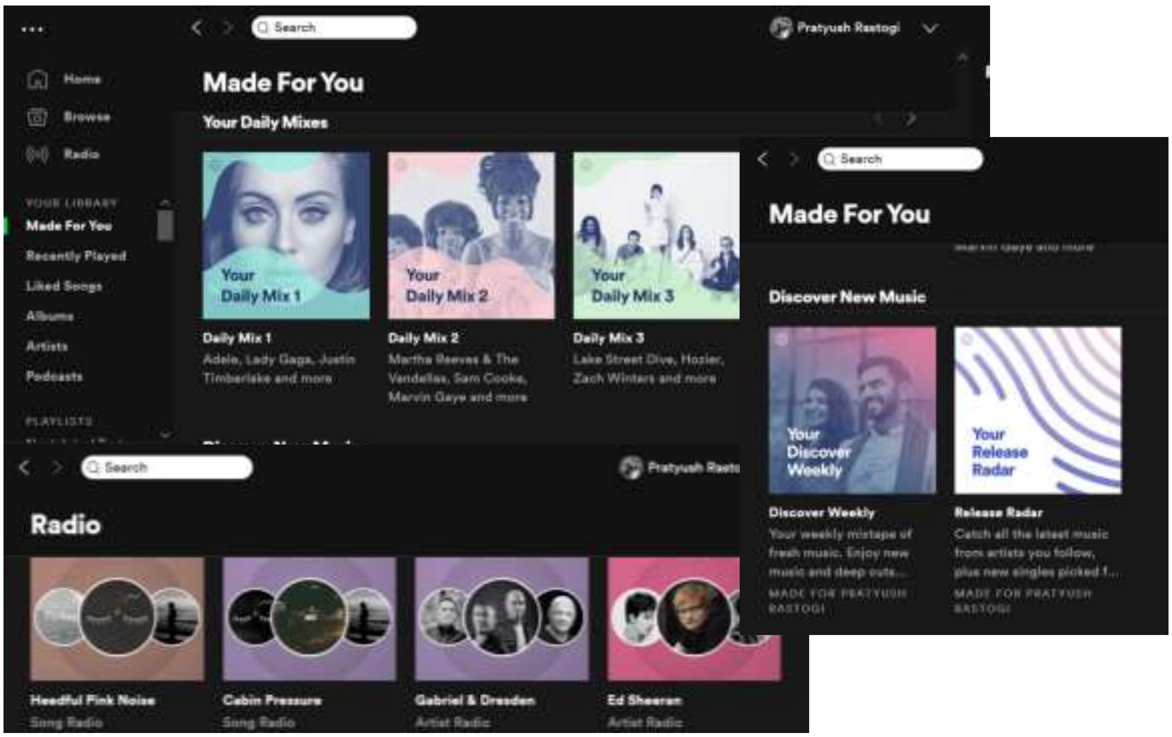
The Demand Side (the Revenue):

Spotify attracts users via word-of-mouth, partnerships (in 2017 for example they launched a partnership bundle with Hulu), advertising, and campaigns ($0.99 for 3 months premium). 60% of premium users start as ad-supported, and while churn can be high, 75% of churned users return back to the platform within 45 days of leaving (a lot of churn is due to payment failure).[12] 70% of MAUs are under 30 years old, with the latest MAU breakup as 26% from North America, 35% from Europe, 22% from LATAM, and 17% from RoW.

[11] Spotify Investor Day presentation, March 2018
[12] Spotify Q12020 6K

Now we won't get too detail into how the product works, as we assume most readers would have already used it or at least used some sort of streaming service, so instead we'll focus on what we think makes Spotify unique.

Spotify doesn't brand itself as a 'streaming' service but rather than a 'discovery' service. The user journey helps explain this. When users first come on the platform the 'search' bar is the most commonly used item as a user wants to find a specific song. However after a few weeks about this, Spotify starts to learn more about the users music tastes and begins to recommend music to the user via their algorithmic playlists.



As you can see above, Spotify has a number of playlists for us based on our past music history (hey! Don't judge!) as well as updates from artists we already listen too, as well as curated 'radio' stations based on the Artists we listen too. Now, while this seems like a nice to have feature, one must understand that this helps to keep the user sticky (see quote above from Ek about how if a user discovers something new each month, they're likely to stay longer) and thus strengthening the fly wheel of the company. In fact Spotify states that they do near 10 billion discoveries each month in 2018, which accounted for nearly 60 discoveries per user/month. These features have made Spotify very popular, boasting a Net Promoter Score of 79 for premium users.

Podcast Vertical:

Like the music vertical we'll discuss both the supply and demand side of this vertical

Supply Side:

Anyone who follows Spotify closely would have noticed that they have made a number of acquisitions in the podcast space in recent years. However before we get into this it's important to dive into why Spotify is in the podcast business anyway. In 2020 more than half of US consumers over the age of 12 listened to podcasts, there were 850,000 active podcasts worldwide and 30 million episodes. 82.4% of podcast listeners spend more than 7 hours a week listening to podcasts.[13] Based on this we can tell why it would be very attractive space for Spotify 1) because of its rapid growth and wide-spread adoption 2) anyone who listens to podcast regularly know it is an alternative to streaming music or listening to the radio and 3) its highly fragmented (lots of independent creators), so could benefit from an aggregator (granted that this exists already via Apple podcasts and apps like Overcast).

Unlike music, podcasts is an area where we Spotify is quite keen to own exclusive content (we have heard from industry insiders that Spotify really does negotiate hard to own the IP), and their acquisitions illustrate this well (acquisition data from crunchbase):

- Feb 2019: Spotify acquires Gimlet Media for $200MM, Gimlet media produces podcasts including shows like Reply All, Startup, and Homecoming
- Feb 2019: Acquires Anchor for $140MM, a platform that allows users to create, distribute, and monetize podcasts
- Mar 2019: Acquires Parcast (amount undisclosed but), a producer of true crime podcasts
- Feb 2020: Spotify acquires The Ringer (amount undisclosed but, which produces sports and pop culture podcasts
- May 2020: Spotify signs Joe Rogan Experience (quoted as a $100million deal) to be exclusive on the platform from September 2020. JRE is one of the most popular podcasts in the world with nearly 200 million monthly downloads
- June 2020: Spotify signs a deal with Kim Kardashian West covering criminal justice reform (scoff at this all you want, but her star power/fanbase is undeniable). Spotify also announces a podcast deal with Warner Brothers and DC to bring the DC universe onto a new medium.

From the above we can clearly see that Spotify wants to become the number 1 destination for podcasts (several of which will be exclusive) and that will both continue to strengthen their flywheel and bring in traditional radio listeners. Now – some might argue that aggregating podcasts is a mug's game and companies like Luminary are trying to monetize it and it's just not working[14]. Also there was some news

[13] https://sg.oberlo.com/blog/podcast-statistics#:~:text=Summary%3A%20Podcast%20Statistics,-Here's%20a%20summary&text=There%20are%20currently%20850%2C000%20active%20podcasts%20and%20over%2030%20million%20podcast%20episodes.&text=82.4%20percent%20of%20podcast%20listeners,to%20seven%20shows%20per%20week.

[14] https://www.bloomberg.com/news/articles/2020-04-24/after-a-dim-first-year-luminary-is-still-chasing-the-podcasting-zeitgeist

that podcasts growth was declining due to the virus (as people weren't commuting). However on the first point, it seems like Luminary made a number of missteps and alienated its talent base, and second is still unclear if people are willing to pay for podcasts, which they are used to getting for free (Spotify will make it available for free via ad-support). On the second point, the dip during the peak of the virus has started to flatten out, and growth has returned over the last few weeks[15] (potentially due to more people cooking at home and thus listening more).

It seems like Spotify is essentially doing the same thing they did in music – pay up for great content (although just one time instead of on each stream), give it away for free (supported by ads), attract listeners, and then again attract more great content. Now a good question here is are they paying up too much for content. Well let's look at the numbers for the Joe Rogan Experience ("JRE"). Joe Rogan has roughly ~11 million listeners[16], lets also assume most are in US where Spotify penetration is 25%[17] (JRE user base is global where penetration is a lot lower, so this is actually very conservative). So based on this we can do some math here.

JRE Math	Figures	Notes
Potential New Users	8,250,000	*11million * (1-25%)*
Premium Users	*3,656,666*	*Based on 44% Ratio of Premium/Total Users*
Free Users	*4,593,334*	
Annual Revenue from Premium (US$)	221,155,131	*Based on Euro 4.50/month/user*
Annual Revenue from Free (US$)	24,693,766	*Based on Euro 0.40/month/user*
Total	245,848,897	

As you can see, this is a great deal for Spotify, considering how much they are paying. Now one might argue this might not be the best deal for Joe Rogan, which we will address in our risk section, but no doubt Spotify knows what it is doing. *Note: you may argue that our conversion assumptions are too aggressive, and that not all non-Spotify users will convert to using Spotify. This would be a fair criticism, so you can choose to modify that yourself, but conversion would have to be just 42% for breakeven to occur in a single year)*

Further, other acquisitions have already started to bear fruit. In the Q1 2020 call, Spotify noted that more than 70% of new podcasts on Spotify were created with Anchor and within their own ecosystem.

Demand Side:

The allure for the demand side of the podcast business is both in aggregation and in exclusive content. Now, we do believe Spotify has a bit of challenge of getting people to switch from their current podcast players to Spotify (which is why exclusive content is so important), but we think this will be slowly overcome – especially in developing markets where phones have lower specs and thus can handle fewer apps. As more demands build we believe more podcasters will enter the ecosystem organically, allowing

15 http://analytics.podtrac.com/blog (June 1 2020 update).
16 https://marker.medium.com/joe-rogan-got-ripped-off-by-spotify-3cfb186c2941
17 https://www.statista.com/statistics/294640/spotify-listenership-in-the-us/#:~:text=In%202020%2C%2025%20percent%20of,in%20the%20same%20time%20period.

Spotify to gain much of the content for free (or perhaps via a rev share of adds ie Youtube). As of now 19% of Total MAUs engage with podcasts content on Spotify, with growth yoy in the triple digits.

With regards to ads – Spotify has started to produce targeted ads. After a few weeks on the service, the company already knows a lot about you (basic info, geography, musical tastes, etc) and because music/podcasts are streamed, they can dynamically deliver ads that are specific to the listener. You can see this model also play out in their accounting change during Q12020 when they announced *"We mentioned in the shareholder letter that we made an adjustment from an accounting perspective in terms of how we allocate costs for the podcasting business. Historically, we had allocated across both free and premium. Now all of the revenue associated with podcast and all the costs associated with podcast will both be in our Ad-Supported business"*. This implies that Spotify is going to use Podcasts as a customer acquisition tool for ad-supported users (also remember a majority of the paid subscribers come from the ad-supported user base) which will feed into the rest of the flywheel. Eventually we'll see a Facebook/Youtube like ecosystem where the product is free, content is mostly free, and users are monetized through ads.

Diving a bit deeper into Ads, Spotify has its own Ad Studio service, a self-serve advertising platform that helps advertisers reach their audience. Recently, Spotify has launched a number of new services including video ads and voice-activated ads (via smart speakers). The company in the most recent quarter also launched Dynamic Ad breaks for podcasts (where the ad is tailored to the user based on past behaviour and preferences). Also with regards to Sponsored Recommendations, average click-through rates and average listener conversion have been at consistently high rates (+30% for each). These latest iterations to their ad platform should help bring up the monthly ARPU for an ad-supported user which right now is only Euro 0.3-0.4/month. To put this in perspective Facebook' monthly ARPU is $2.48.

Growth and Key Metrics:

	2017				2018				2019				2020	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Users (MM)														
MAU	131	138	150	160	173	180	191	207	217	232	248	271	286	299
Growth YoY %					*32%*	*30%*	*27%*	*29%*	*25%*	*29%*	*30%*	*31%*	*32%*	*29%*
Premium	52	59	62	71	75	83	87	96	100	108	113	124	130	138
Growth YoY %					*44%*	*41%*	*40%*	*35%*	*33%*	*30%*	*30%*	*29%*	*30%*	*28%*
Premium Margin %	*15.70%*	*24.10%*	*22.90%*	*25.30%*	*26.00%*	*26.90%*	*26.10%*	*27.30%*	*25.90%*	*27.20%*	*26.50%*	*26.90%*	*28.30%*	*28.10%*
Ad-Supported	82	83	91	93	102	101	109	116	123	129	141	153	163	170
Growth YoY %					*24%*	*22%*	*20%*	*25%*	*21%*	*28%*	*29%*	*32%*	*33%*	*32%*
Ad-supported Margin %	*-9.0%*	*13.6%*	*17.0%*	*18.6%*	*12.7%*	*16.3%*	*18.6%*	*22.1%*	*11.0%*	*15.8%*	*16.0%*	*15.4%*	*-6.6%*	*-11.9%*
Premium/Total%	*39%*	*41%*	*40%*	*43%*	*42%*	*45%*	*44%*	*45%*	*45%*	*45%*	*44%*	*45%*	*44%*	*45%*
Premium Churn	5.50%	5.90%	5.70%	5.10%	4.90%	5.00%	4.80%	4.80%	4.80%	4.60%	4.53%	4.03%	4.13%	4.21%
LVT (Euro)	99.27	93.73	88.77	102.75	96.33	97.80	98.54	101.88	98.13	105.65	103.09	115.38	107.02	104.75
Revenue (Euro MM)														
Premium	828	904	923	1,018	1,037	1,150	1,210	1,320	1,385	1,502	1,561	1,638	1,700	1,758
ARPU (Euro monthly)	*5.46*	*5.53*	*5.06*	*5.24*	*4.72*	*4.89*	*4.73*	*4.89*	*4.71*	*4.86*	*4.67*	*4.65*	*4.42*	*4.41*
Ad-supported	74	103	109	130	102	123	142	175	126	165	170	217	148	131
ARPU (Euro monthly)	*0.30*	*0.41*	*0.40*	*0.47*	*0.33*	*0.41*	*0.43*	*0.50*	*0.34*	*0.43*	*0.40*	*0.47*	*0.30*	*0.26*
Total	902	1,007	1,032	1,148	1,139	1,273	1,352	1,495	1,511	1,667	1,731	1,855	1,848	1,889
Growth YoY %					*26%*	*26%*	*31%*	*30%*	*33%*	*31%*	*28%*	*24%*	*22%*	*13%*
Gross Margin	11.7%	23.0%	22.3%	24.5%	24.9%	25.8%	25.3%	26.7%	24.7%	26.0%	25.5%	25.6%	25.5%	25.4%

As we can see from the above table, Spotify has been growing its MAU numbers by 30%+ over the last few quarters. Now it appears that revenue has not kept pace, with growth declining to about 22% last quarter from 30% a quarter ago. This is driven by ARPUs, and while Q1 was decline was partially coronavirus related, there has been a greater trend in declining premium ARPUs from Euro 5.46 in Q12017 to 4.42 in the most recent quarter. Now the market seems to be fixated on this along with the fact that COGS are highly variable. However if we take a closer look, we can notice that while Premium ARPU has been coming down – due to marketing campaigns and launches in lower ARPU countries, churn has been trending down and (from 5.5% in 2017 to low 4% now) and both premium and gross margins have been trending up (from mid-teens to mid/high twenties now). All this combined is leading to a higher net LTV per premium customer, which is now around Euro 30.29 in Q42019 (from ~15.99 in early 2017). This this means while Spotify has been diluting ARPU in the short run, it has been bringing on more valuable customers for the long-term and increasing the stickiness of the overall platform. We suspect ARPU will start to stabilize (and eventually go up) as more scale is achieved.

Just going back to Premium LTV's for a second, you'll notice we used the term *net* LTVs which is gross LTV (ARPU * 1/Churn) * Gross Margin. We have presented this way as this is how Spotify defines LTVs as per their F1[18]. *(Now we understand this is not typically how present LTV, which is typically presented before Gross Margin – which in this case would be ~Euro 107 as per Q1 numbers).* Spotify also has regularly quoted a LTV/CAC ratio of 2.7 implying that for a Euro 30.29, CAC is $11.21 giving an operating profit of around Euro 19 per premium user.

With regards to 2020 growth, despite the coronavirus, Spotify has stuck to its MAU guidance (has lowered revenue guidance due to covid) and has presented the street with the following:

	Low-End	**High-End**	**Low-End YoY Growth**	**High-End YoY % Growth**
MAU (MM)	328	348	21%	28%
Premium MAU (MM)	143	153	15%	23%
Total Rev (Euro BN)	7.65	8.05	26%	32%
Gross Margin	23.20%	25.20%	- 220bps	-30 bps
Operating Profit/Loss (Euro MM)	-250	-150	- 177 million	- 77 million

Top line growth and MAU should continue to increase at a 20-30% rate for the foreseeable future. In the worst case scenario a loss of Euro 250 million is roughly 3% of the operating revenue. We believe that this 3% should be made up easily over the next few years driven by margin expansion as premium ARPUs normalize and grow and additional advertising revenue given the podcast vertical and new ad features.

[18] "Here LTV is calculated by dividing one by the Premium Churn rate for the fourth quarter of 2017 multiplied by the Premium ARPU for the fourth quarter of 2017 and by gross margin for the consolidated Ad-Supported and Premium segments for the fourth quarter of 2017"- From Spotify's F1

Competition[19]:

In the steaming space some of Spotify's biggest competitors include Apple, Amazon, Youtube, and Pandora. However most of Spotify's competitors do not have a free tier, instead giving a few month free trials before converting to a paid subscription.

- **Apple Music:** Apple Music is probably Spotify's largest competitor with around 68 million subscribers. While Apple has deep pockets and a seeming advantage in podcasts (as Apple Podcasts is one of the largest podcast apps in the world), Apple is very much focused on the paid user, as it doesn't tend to monetize through ads. Further Apple has not launched as sophisticated suggestion algorithms as Spotify has, instead suggested music based on user inputs. This lowers the ability for someone to discover on the platform. Further it does seem that Spotify could be becoming a more important partner for the record labels. In WMG 2019 report we can see that as of 2017 Apple was listed as the only customer that contributed more than 10% of revenues (14%), in 2018 Apple contributed 15% whereas Spotify contributed 14%, and in 2019 Spotify overtook Apple, contributing 14% and Apple contributing 13%.
- **Amazon Music:** Requires an Amazon Prime Membership, and then you pay around US$7.99/month. Amazon claims it has 55 million users.
- **Youtube Music:** Alphabet has recently said that it has 20 million subscribers to Youtube Red and Youtube Music combined, however with Youtube's 2 billion MAUs it seems that conversion has been very poor for its premium services.

There are other streaming services such as Tencent Music (the world's largest music streamer in which Spotify has a ~8% stake and which also has a ~9% stake in Spotify), Pandora, Idiago etc, but those tend to be more niche or limited to one geography. In response to questions about their competition in Q32019, Spotify had this to say, "Relative to Apple, the publicly available data shows that we are adding roughly twice as many subscribers per month as they are. Additionally, we believe that our monthly engagement is roughly 2x as high and our churn is at half the rate. Elsewhere, our estimates imply that we continue to add more users on an absolute basis than Amazon. Our data also suggests that Amazon's user base skews significantly more to 'Ad-Supported' than 'Premium', and that average engagement on our platform is approximately 3x."

CNBC in late July did a great video of how Spotify came to dominate streaming. Watch here.

[19] https://musically.com/2020/02/19/spotify-apple-how-many-users-big-music-streaming-services/

Valuations (done on 1st August, 2020)

(1st Aug 2020)	Market Cap (US$ MM)	EV (US$ MM)	MAU (MM)	EV/MAU	Monthly ARPU (blended)	MAU Yoy Growth	Notes
Spotify	47,940	46,256	299	$ 154.70	2.10	32%	*Monthly ARPU (weighted avg of paid & free)*
Netflix	215,600	225,100	192.95	$ 1,166.62	10.62	23%	*Monthly ARPU provided in earnings*
Facebook	723,300	663,010	3140	$ 211.15	2.15	10%	*Monthly ARPU is sum of last 4 quarters divided by 12*

Applying Facebook EV/MAU multiple to Spotify		
FB EV/MAU	$	211
SPOT MAU		299
Implied SPOT EV	$	63,134
Implied SPOT MC	$	64,818
Shares Outstanding (MM)		185.6321
Price/Share		349
Current Price/Share		257
Potential Upside		35.9%

We try to apply a valuation based on how the market values a monthly-active-user. As we can see from Facebook which has a family (Facebook+ Instagram + whatsapp) MAU of 2.9 billion. We can see that the market is comparatively undervaluing Spotify's MAU even though monthly ARPUs appear to be the same. Now one would argue that Facebook's users have a much higher margin (actually 3x as much on a gross profit level) so this is not comparable, and that the lower multiple is highly justifiable. However considering Spotify is growing its MAU base by 3x the speed of Facebook, it can also be argued that a higher-multiple should be applied (let's put it this way if the gross margins for a Spotify and FB MAU was the same, one would agree Spotify demands a higher multiple as its growing faster). So we think it is fair to apply a Facebook multiple to Spotify, and if we do so we do see an undervaluation of the company by ~30-40%.

If we look at a Price/Revenue multiple, Spotify trades at around a 6.25x multiple with Facebook trading at a 9.5x and Netflix at a 9.8x multiple. Each of these companies saw broadly the same revenue growth (26-28%) with the market expecting a 9%, 18%, and 22% yoy 2020 growth for Facebook, Spotify, and Netflix respectively. This illustrates that Spotify could stand to see some re-rating as revenues continue to grow at ~20-30% rates and gross margins increase. Put it this way, if Spotify can get its operating margins to close to ~10% over the next 2-3 years, it would just justify a re-rating to around 9-10x sales as that's around where the likes of Netflix trade with similar margins. Discount this back to today and we see a 70-100% upside.

The above withstanding, we fully recognize that the valuation case is not the strongest as far as this thesis goes and the above is trying to fit a round peg into a square hole. While we think that the above does give us some indication of what Spotify could be worth (even if it is a bit of a stretch), the true thesis here is the fundamental change the company is going through and the future prospects rather than the current valuation, which is fair, but not cheap.

Management and Board:

As we've stated above Daniel Ek is the CEO and Co-Founder of the company. As of the 2019 Annual Report he owns 18.5% of the ordinary shares and around 33.6% of the total voting power. His Co-Founder Daniel Lorentzon (who is still on the board) owns around 12.1% of ordinary shares and around 43.8% of the voting power. Thus it's safe to say both have significant skin in the game. Daniel Ek does not receive a base salary. He received a $1,000,000 bonus in 2017 and has not received any further bonus as of 2018 and 2019.

The board of Spotify is also stacked with impressive talent including Barry McCarthy (ex-CFO of Spotify and Netflix), Shishir Mehrotra (CEO/Co-Founder of Coda), Ted Sarandos (Chief Content Officer of Netflix), and Padmasree Warrior (ex-Cisco CTO).

Risk:

- **Shifting Podcast Habits:** One of the risks of the Podcast leg of the thesis is that Spotify will have to work hard to change the habits of podcasts users. As of now, most podcast users already use an app to listen to their desired content. This can only be done by capturing more content and specifically exclusive content.
- **Competitors have deep pockets:** A potential difficulty Spotify has is they are competing for the record labels catalogue, for which their competitors can pay a lot of money for (and as it's not the competitor's main business, they can make a loss of it). However considering the labels make money of the number of streams; they would want to distribute the music on as many platforms as possible.
- **Seller's Regret:** There is reasonable argument[20] that podcasts creators could be getting the raw end of the deal. Monetary calculations aside, part of it could be that podcast hosts find they don't own their audience anymore, and risk giving up their independence. This could imply that after initial contracts expire, Spotify will see an exodus of content. This has to be monitored, however similar things were said about musicians not getting a proper shake from Spotify, however with more and more demand coming from Spotify users, it seems like an equilibrium between musicians and Spotify have been reached, and we could see the same in podcasts. We have also heard using some scuttlebutt that Spotify is not the best at managing Podcast talent, and they've burned some bridges. However the industry insider who we talked to did say that he does expect Spotify to eventually sort this out as they did with music (ie Taylor Swift was very vocally anti-Spotify a few years ago and just this last weekend released her brand new album on the platform, and its expected to be the biggest debut of 2020)
- **Apple EU anti-trust:** This is actually a positive if it break's Spotify's way, as they will no longer have to pay Apple the 30% tax for users subscribers through the app store, but we're a bit hesitant of companies that have to go to the courts to compete rather than winning where it matters – with the customers.

[20] https://marker.medium.com/joe-rogan-got-ripped-off-by-spotify-3cfb186c2941

Thesis:

1) Spotify will continue to grow MAU's via its flywheel on all audio (music and podcasts) and at the same time grow ARPU, lower churn, and increase gross margins via their two-sided marketplace
2) The market is too focused on declining ARPUs and not focused enough on the strength of the ecosystem that can be measured by increased engagement and lower churn.
3) With dynamic ad placement and exclusive podcast content we should see a significant increase in Ad-supported ARPU going forward.