EquityZen Industry Overview:
Music Streaming

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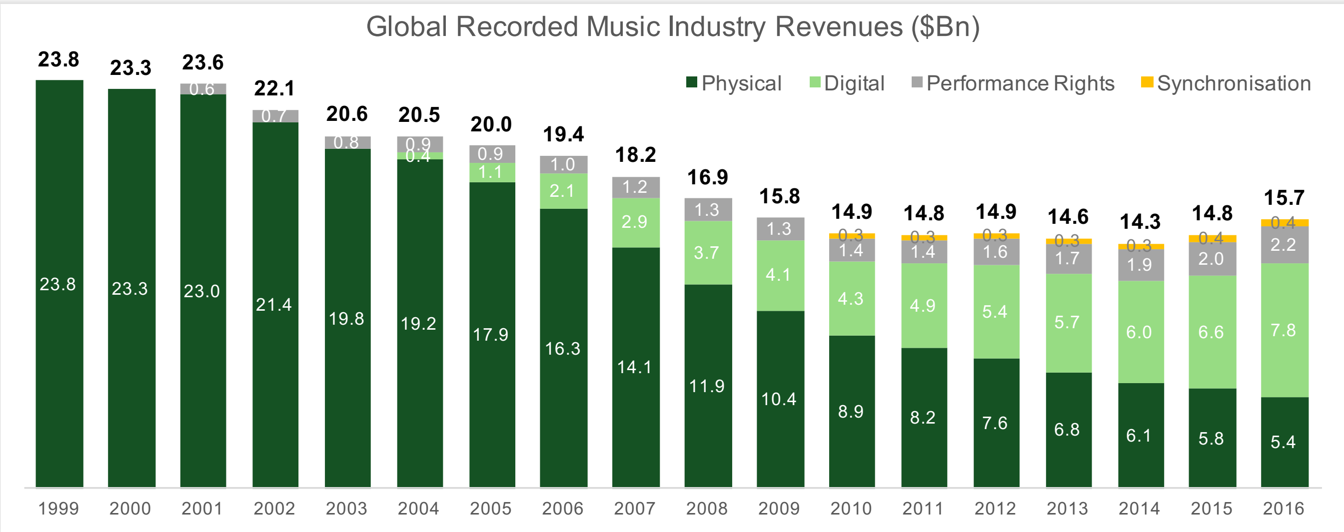
EQUITYZEN

The last two years have proven to be a huge turning point for the music industry as internet streaming has meaningfully reversed the 15-year decline in industry revenues brought about by the internet piracy age at the turn of the century [1]. In this report, we'll look at how digitization has developed the music industry since its peak in 1999 before discussing current industry trends and the business models and performance of the key market players, Spotify, Apple Music and Pandora.



Source: Global Music Report 2017, IFPI

A Brief History – From Physical to Digital

In 1999, at the peak of the music industry's revenues, physical sales of CDs comprised the vast majority of industry income with a small portion coming from cassette and vinyl. That same year Napster was born, a peer-to-peer (P2P) file sharing platform that facilitated easy file transfer of music through the recently developed MP3 format.

During the 2000s physical sales plummeted as tech savvy music listeners found new ways to acquire and consume music digitally. Music could be downloaded from P2P file sharing platforms (Napster, Kazaa, Limewire), torrent networks (BitTorrent, The Pirate Bay, TorrentFreak) and directly from file hosting websites (RapidShare, MegaUpload, Hotfile). CD extraction software was prevalent, enabling music on owned (and borrowed) albums to be converted into digital format. The demand was fueled by the proliferation of music devices that included hundreds of cheap MP3 players, desktop software, and even feature phones (Sony Ericsson Walkman).

The music industry fought back, setting stark examples by litigating individuals through tracked IP addresses, attempting to, unsuccessfully, discourage the widespread file sharing practices. They also served cease and desist orders to file sharing platforms and torrent websites, often successfully, only for another website to spring up in their place.

Apple, in collaboration *with* the music industry opened the iTunes store in the mid 2000s, offering a simple way to download music at reasonable prices ($0.99 for a single and around $10 for an album). Its early success demonstrated that listeners were prepared to pay for convenience, quality, and lack of complexity of music piracy whilst avoiding any risks associated with copyright infringement. The iPod became the best-selling portable music player and most models held thousands of songs showing that many users valued the ability to access whole music libraries on-the-go. Despite the poorer economics than CDs this seemed to be a good solution to the file sharing epidemic.

Digital Music 2.0 – Enter Internet Streaming

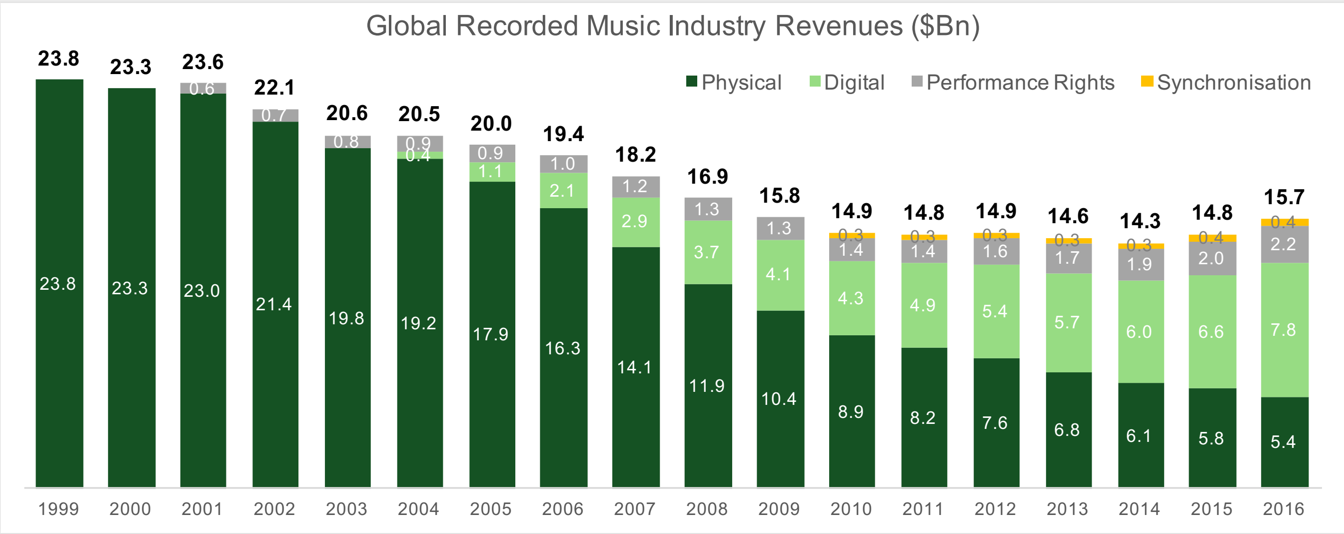
As broadband speeds grew ever faster, a number of websites grew in prominence as sources for playing music directly over the internet without actually downloading and saving the music file (i.e. internet streaming). Websites such as Youtube, with user uploaded content and a reactive, rather than proactive, approach to copyright law, became a vast source of music across virtually all genres that could easily be listened to for free, demonstrating a demand for platforms with easily accessible and varied inventory.

Other platforms entered the fray, forming three broad categories based on business model:

- User uploaded content, e.g. Youtube, Soundcloud, and Grooveshark
    - Users could listen based on files uploaded to the website by other users, often independent creators. However, content was often not owned by the uploading user.
- On-Demand, e.g. Spotify, Rdio, Deezer, and Rhapsody
    - These services worked with the music labels to legally license the music so that users had full control about what they listened to.
- Internet Radio, e.g. Pandora, Slacker, and 8Tracks
    - These services also worked with the labels to provide continuous playback of tracks that were curated according to chosen artists, genres or even moods. These services promoted effortless discovery and recommendation of new music, an internet trend that is still popular today (e.g. Spotify and Apple Music both have curated radio stations).

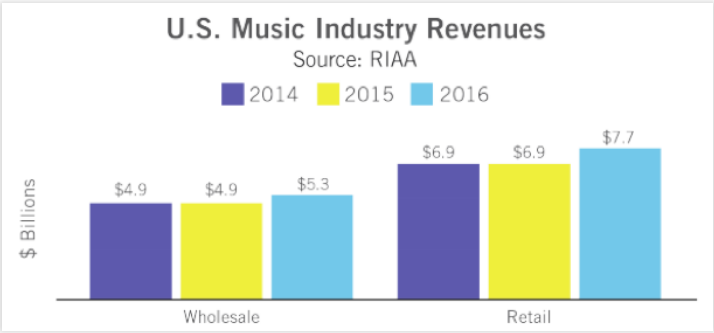
Current Music Industry Trends

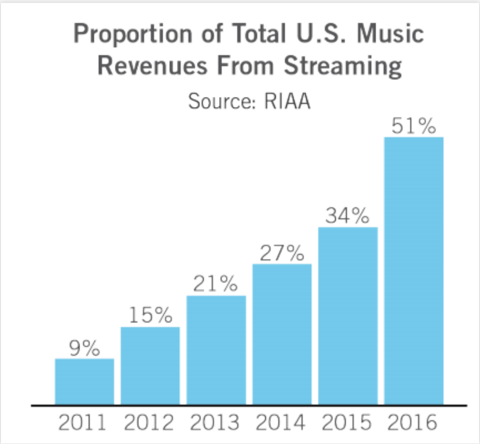
The effect of the internet streaming wave has been dramatic. After almost two decades of decline, digital music sales (driven by streaming) has reversed the decline of global music industry revenues and led to two years of positive growth. Total industry revenues grew 5.9% to USD 15.7 Bn in 2016 of which digital revenues accounted for more than half. Streaming was responsible for 60% of this growth, offsetting declines of digital downloads and physical purchases and now accounting for 60% of global digital revenues [1].

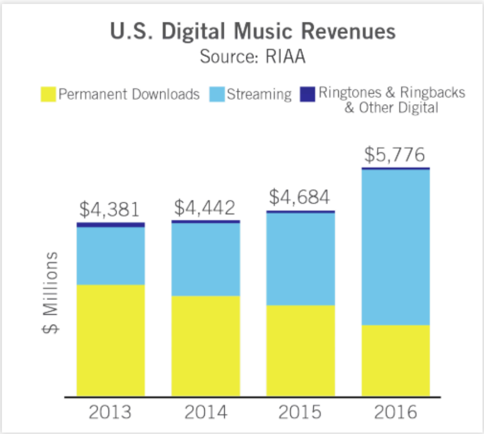


Source: Global Music Report 2017, IFPI

In the US, retail revenues grew 11.4% in 2016 to $7.7 Bn driven by high growth in paid streaming subscriptions [2]. Streaming overall accounted for 51% of US industry revenues and more than offset declines in digital downloads. US streaming revenues are estimated by Statista to grow at c.15% over the next 5 years [3].







This tremendous growth is driven by several factors and trends, many of which we can observe becoming increasingly relevant throughout recent history.

- *Technology* – At the foundation of streaming growth is the ever-increasing global penetration of increasingly powerful smartphones combined with faster internet speeds. Internet users of today have become accustomed to having access and variety at their fingertips whether they be at their desk or on the go. Music streaming has taken recorded music global, leapfrogging geographical borders and opening up new markets where music markets previously barely existed. As smartphone and 4G penetration increase in developing markets watch out for the millions of potential consumers who will be looking for a streaming platform.
- *Competition* – The huge demand generated has led to high levels of competition leading to differentiation, innovation and the expansion of the pie. The preferences of music consumers vary widely (e.g. genres, latest albums vs. singles, independent vs. mainstream, social sharing, curated playlists, recommendations etc.) so competing platforms have been able to grow their user bases without taking too much share away from existing players.
- *Data* – Increases in data crunching capabilities have improved user experiences through better curated playlists, more relevant recommendations and user interface upgrades. Streaming provides instant feedback for the artist too, such as which songs are the most popular or which locations have denser fan bases for touring.

Streaming Business Model Basics

There are two main constituents of music rights owners: (1) the owner of the song rights (e.g. composers and songwriters – represented by publishers) and (2) the owner of the recording rights (e.g. artists and producers – represented by the record labels). Independent singer/songwriters often own both sets of rights.

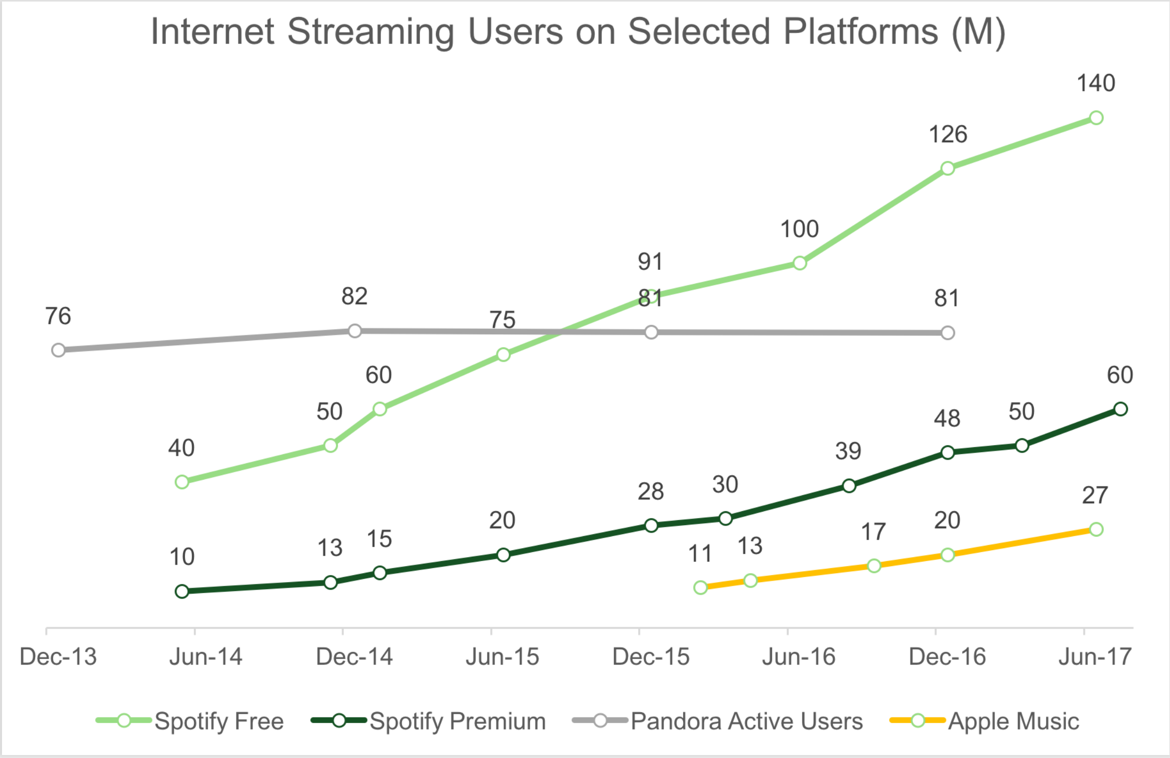
For internet radio services rights holders are typically paid a contractually-agreed percentage of advertising and subscription revenues. For on-demand services however royalties are paid in lock-step with the proportion of streams in a given period of time such that, the bigger the artist is as a proportion of that month's streams, the larger the fraction of royalties that are paid. Total royalty payments are determined by subscription and advertising revenue such that an artist's royalties can increase purely because there are more paying users on the platform. Many websites calculate royalties paid to artists per 1,000 streams [4] by collecting data from a sample set of artists however, due to the nature of how streaming services pay royalties, these rates will change over time depending on the number of subscribers on the platform and the type of music they are listening to.

After paying royalties, streaming services retain only 15-40% of revenues to cover operating costs (sales and marketing, product development and general & administration) which means they must achieve scale to be profitable.

Spotify, Apple Music & Pandora

Spotify (on-demand) and Pandora (internet) are the leading internet streaming companies today with very different business models and growth prospects. Apple Music, although a newcomer, is quickly scaling to join them in the top ranks and may pose a threat to their future growth. Here we'll briefly look at their performance in turn.

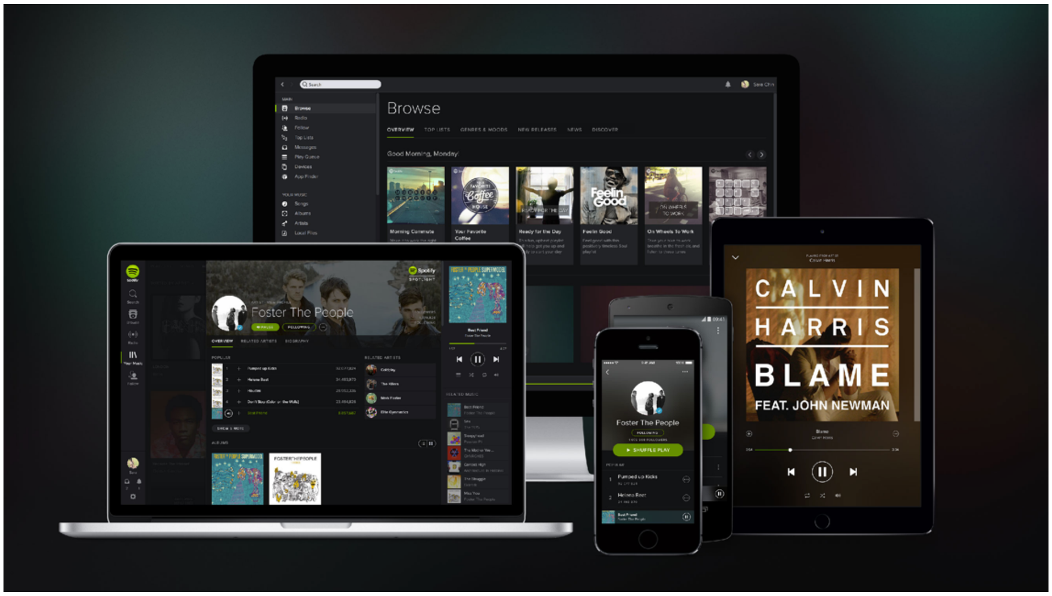
	Spotify	MUSIC	pandora
Launch Year	2008	2015	2000
Core Service	On-demand	On-demand	Internet Radio
Subscription Tier Pricing	$9.99	$9.99 (or $99 a year)	$9.99
Free Tier?	Ad Supported	None (3-month free trial)	Ad Supported
Song Library	Over 30M	Over 40M	1.5M
Countries Available	59	113	3
Royalties Payout	~70%	60-70%	50-60%
Users	Premium: 60M (Jul-17) Free: 140M (Jun-17)	Subscribers: 27M (Jun-17)	Active Users: 81M (Dec-16)
2016 Gross Margin	15.4%	N/A	35.4%
2016 Operating Profit / (Loss)	(11.9%)	N/A	(23.0%)



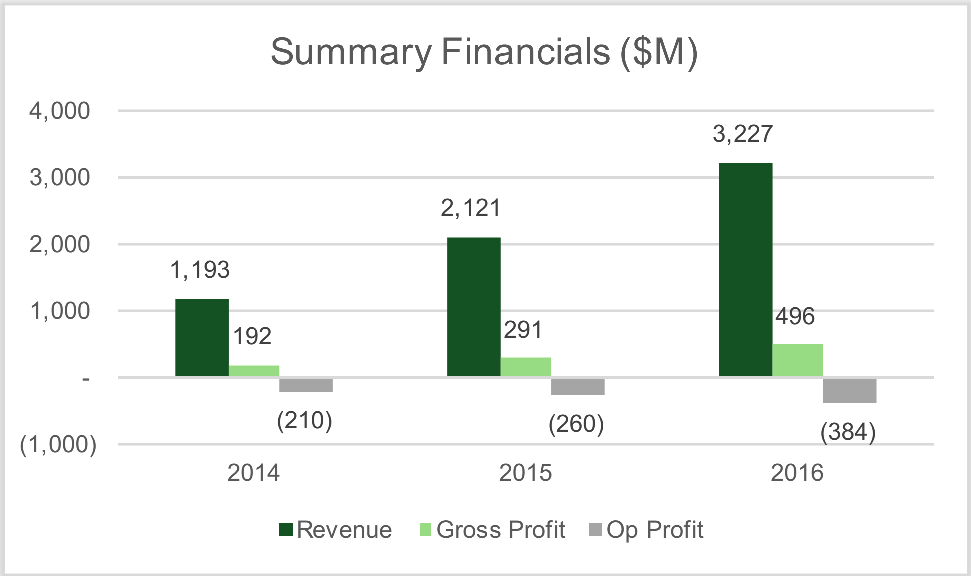
Source: Company Information

Spotify

Spotify is the clear global market leader in paid on-demand streaming. They have a huge music library to satisfy varied user taste, an easy-to-use cross-platform interface and a social element that allows users to interact with artists, friends and the community.



Spotify continues to exhibit strong growth with a CAGR of over 60% for revenue and gross profit over the last two years and annual growth rates of around 50% and 75% for total and paid users respectively since 2014. They have disclosed that they pay around 70% of revenues away in royalties which contributes to their mid-teens gross profit (15.4% in 2016).



Source: Company Information; USD converted from EUR at 1.10

Operating losses are increasing, likely due to continued scale investments in marketing and product development, however costs are growing at a slower rate than gross profits suggesting that with greater scale profitability will be reached. Furthermore, as markets begin to saturate they should be able to pare back marketing expenses and increase profitability further.

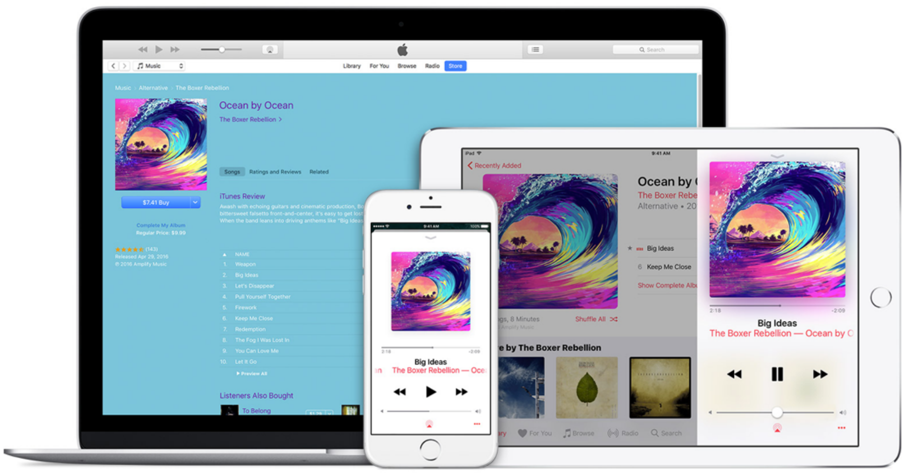
Spotify's scale has enabled it to have greater bargaining power with the music labels as it represents an increasing source of revenues and drives discovery for artists [5]. With a stronger bargaining position, they are working to reduce the amount they pay out to record labels and have recently agreed deals with Universal Music Group (world's biggest record label and Spotify's biggest supplier), Sony and Merlin (network representing independents).

In the UMG and Merlin deals, Spotify agreed to commit to $2 Bn of guaranteed payments and subscriber growth targets in exchange for lower royalty rates. They will also allow some album releases to only be available to premium subscribers for two weeks. This should help with premium user conversion, a strategy that should enable Spotify to tap into its 90M pool of acquired but non-paying customers. It's worth noting that about 18% of Spotify is owned by the major record labels, this aligns interest to an extent where the labels may work to ensure Spotify's success.

Securing more advantageous terms with the record labels is a key strategy for Spotify as it aims to become a public company. Spotify is reportedly aiming to list its shares publicly through a direct listing in late 2017 / early 2018 [6]. Direct listings are used when a company wants to go public without raising additional cash from investors thereby avoiding the hefty costs of underwriting as well as the typical 6-month lock-up for existing shareholders who can trade immediately. For more info on direct listings see here.

MUSIC

Launched in 2015 following the $3 Bn acquisition of the music streaming service Beats, Apple Music has exhibited impressive growth with total subscribers reaching 27 million in June 2017. Like other on-demand services it offers a large selection of music (larger than Spotify with over 40M), playlists, radio stations (through Beats 1) and offline mobile playback. There is no free ad-supported tier with Apple opting for a 3-month free trial instead. Prices are in line with the market at roughly $10 per month with an additional $99 annual plan for those who want to commit and save.



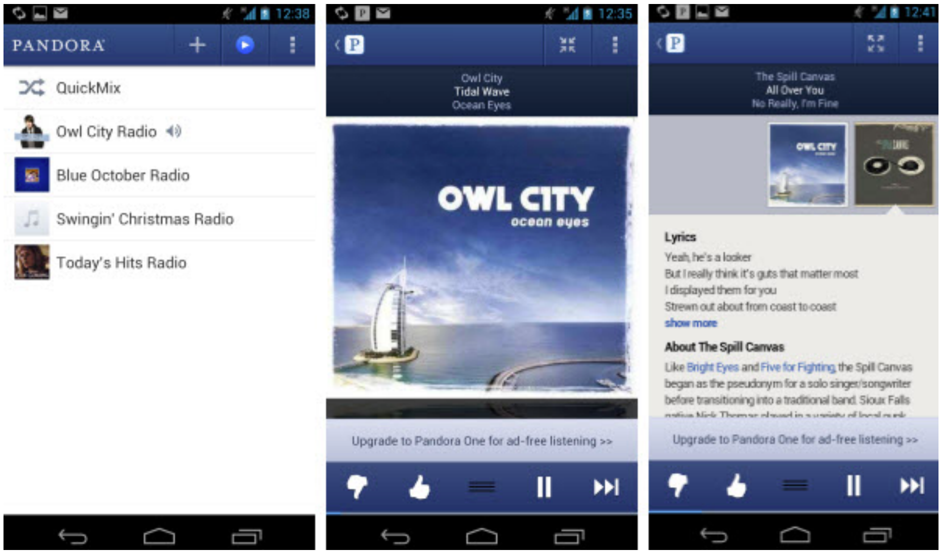
Given Apple's history with digital music through iTunes, Apple Music is able to offer exclusive releases (for a few weeks) as well as much tighter integration with the Apple operating system, including Siri and iTunes. With iTunes users can sync their existing music library of purchased songs and albums which then become searchable within the app.

Apple's impressive growth is undoubtedly due to its leading branding position as well as an aggressive marketing campaign that was kicked off with a multi-million dollar Super Bowl ad featuring Taylor Swift and has continued with viral-ready videos starring high profile celebrities including Drake and DJ Khaled.

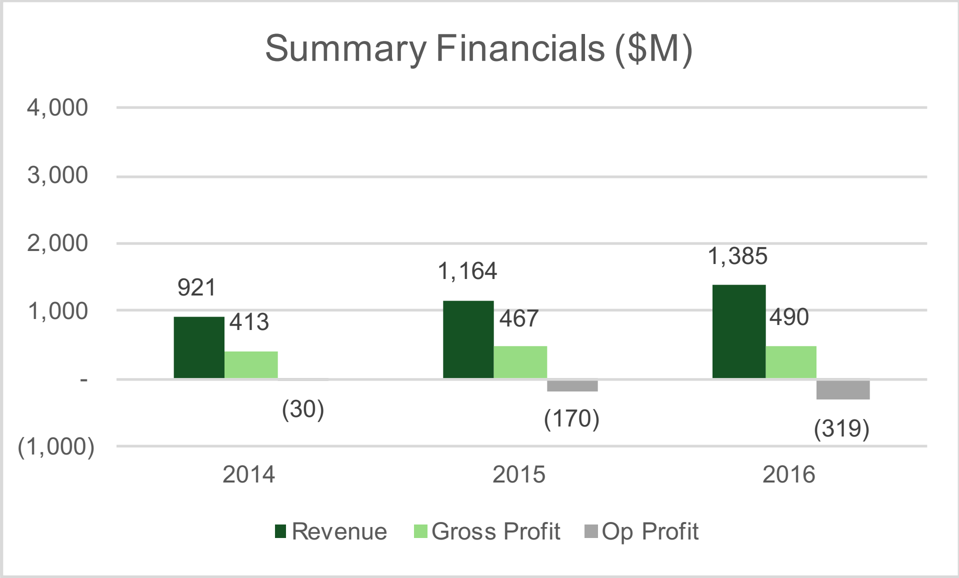
Scaling is necessary for any streaming business model but it's especially necessary for Apple who are effectively cannibalizing their own iTunes digital downloads business. On the one hand this may be a necessary strategy to adapt to the inevitable streaming state of the world, on the other hand Apple may not intend or require the streaming business to be profitable given that it's not Apple's core product; for many years the iTunes service was run at break-even to drive iPod and iPhone sales. Music is a core part of the iPhone user experience for many and Apple maybe going for a similar strategy here.

pandora®

Pandora is the leading ad-supported radio service with a powerful music recommendation feature, driven by the Music Genome Project, a decade old analysis that classifies songs using up to 450 distinct traits. Since its public market debut in 2011 revenues have grown every year to $1.4Bn, almost 10x. However, losses have only widened and the company has come under pressure from slowing active user growth (active users actually declined in 2015 and 2016). The share price currently trades lower than the initial IPO price 6 years ago and activist investors such as Corvex Management LP have been pushing the company to consider its options, including a sale [7].



Pandora pays a lower rate of royalties (50-60%) to rights holders than Spotify (partially because of the passive aspect of the listening experience) leading to higher gross margins (35.4%) and resulting in similar dollar amounts of gross profit (c. $490M).



Source: Company Information

Pandora also faces the issue of having to grow themselves into profitability but this is a much more difficult feat given the flat active user growth. This is potentially due to the increasing competition in the internet radio space (e.g. iHeartRadio, Slacker) and the increasing popularity of the radio features of Spotify and Apple Music. Pandora does seem to be focusing on better monetization and to this end they have introduced a subscription tier (which provides an ad-free experience and more control) and they are working on better ad targeting.

Recently Pandora has been raising money to spend on growth initiatives [8]. They sold Ticketfly to Eventbrite for $200M (after buying in 2015 for $450M) and received a $480M strategic investment from Sirius XM [9] who will also appoint three board members, a deal that Corvex Management LP described as a "huge vote of confidence" [10]. We will have to wait and see whether Pandora can deliver on growth and profitability as the music streaming sector heats up with fast growing on-demand players.

Other Competition

Outside of the three main players there are several competitors worth keeping an eye on, especially those backed by multi-billion dollar corporations who can afford to experiment and lose money just to have a player in the potentially lucrative streaming game.

Both Amazon and Google have introduced on-demand streaming services (Amazon Music Unlimited and Google Play Music respectively) at similar price points and with comparable features. Like Apple, Google and Amazon could use music as a loss leader for other products such as the smart home devices (Amazon Echo and Google Home) which double as living room speakers or they could use the data to improve contextual advertising and recommendations.

Google have also introduced the YouTube Music App which allows continuous playback of curated music playlists based on the user's tastes. It requires a YouTube Red subscription ($10 p.m.) which grants the user ad-free access to YouTube videos, background playback and some original content. YouTube Red subscribers get free access to Google Play music (and vice versa). YouTube's existing platform today drives the largest number of music streams, however because it's a user-uploaded video-streaming service they avoid paying the same royalties as Spotify, Apple and Pandora due to elements of the Digital Millennium Copyright Act (DMCA). This disparity is often called the "value gap", and several music industry organizations are pushing for a change in the law.

Tidal is an on-demand service owned by Jay-Z and other successful music artists that offers lossless (high fidelity) streaming and exclusive content. Tidal reportedly pays a greater share of revenues to the artists than Spotify. Total user numbers seem to be hovering around the 1.1 million mark, possibly an indication that the $19.99 per month high fidelity tier is not as popular as the industry standard $9.99.

Whilst not a direct competitor, SoundCloud is notable for its user engagement and focus on direct upload of artist created/generated content and podcasts in formats that are easily shared over the internet (e.g. embedded players, widgets). With 175 million unique monthly users SoundCloud has great scale, however they have struggled to monetize this user base particularly because a lot of the user uploaded content includes samples and remixes that lead to copyright and licensing issues. The company's losses have been increasing, rising to $52 million in 2015 on $22 million of revenue, and the co-founder believes the future success of the company is dependent on the success of their SoundCloud Go subscription service [11]. Company revenues are expected to grow by 137% in 2017 [12]. SoundCloud recently laid off 40% of its staff without warning, in a bid to manage costs and preserve cash [13].

On the internet radio front the two main competitors to Pandora in the US are iHeartRadio and Slacker, two services with considerable user numbers and slightly different value propositions. For example, iHeartRadio leverages the content of the approximately 860 terrestrial radio stations owned by iHeartMedia to allow users to listen to local stations wherever they are in the US, as well as curated channels.

Looking Forward - Is streaming the future?

With streaming being so straightforward and effortless consumers are moving away from illegal file-sharing and digital downloads. The streaming model of paying (or listening for free with intermittent advertisements) for convenient access to a high quality and varied inventory, with social sharing, algorithmic curation and discovery is quickly becoming the standard.

As global internet penetration, connectivity, and data analysis continues to improve we can expect to see additional content formats (e.g. video, live concerts), more tailored playlist curation and deeper integration features such as voice activated songs/playlists (e.g. through Amazon echo and other smart home devices). Given these technological and social trends, one can be somewhat confident that streaming is here to stay for at least the next 5 – 10 years, as long as the business model is sustainable, that is, as long as the music labels and independent producers see enough of the streaming revenues to encourage continued investment and development of high quality musical content.

So far it seems so, and as the clear market leader, Spotify is shaping the way we discover and consume music. Its recent successes renegotiating terms with the music labels are clear indications that it's here to stay and may accelerate Spotify's path to profitability, which will be dependent on how intensely Apple (and to a lesser but increasingly important extent, Amazon and Google) decide to compete in the US and international music markets.

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