# Spotify: An Audio Lollapalooza

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***“Really big effects, lollapalooza effects, will often come only from large combinations of factors” - Charlie Munger***

In this 10+ page write-up, we are going to outline why Spotify is currently one of our largest holdings and why we believe the company’s new platform strategy is going to create an audio lollapalooza effect. There will be four sections that outline our conviction:

1. Music: Discovery + Pricing Power
2. Podcasts: An Audio Lollapalooza
3. Management: Long-term Thinkers and Capital Allocators
4. What can Spotify be Worth Five Years From Now? (And what could go wrong)

Spotify may or may not be a holding at the time you read this. To get an updated list of Arch Capital’s current holdings, head over to our website: https://www.archcapitalfund.com/holdings

*(All valuation work is based on a ~$232 stock price and 191,356,012 shares outstanding)*

## Music: Discovery + Pricing Power

*(This will focus on premium plans. Ad-supported music will be analyzed along with podcasts since all advertising is now under the Spotify Audience Network)*

Spotify’s original goal was to build a global music streaming business. The company has succeeded mightily in that regard, with 365 million monthly active users (MAUs) and 165 million premium subscribers around the globe as of the end of Q2 2021. It is in 170+ markets around the world, and, from how management talks, it seems like they want to be in every country except China (they own 9% of Tencent Music worth around $1.2 billion to give them 3rd-party exposure in that region).

A big concern investors have with Spotify’s premium music business is the hefty payout (about ⅔ of revenue) the company pays to labels, rightsholders, and artists for every dollar they bring in. While true, we don’t think this makes Spotify a *bad business*, just one where you should focus on gross profit dollars (and eventually cash flow) instead of revenue.

Spotify will do that in three ways: riding the secular growth wave, raising gross margins, and raising subscription prices.

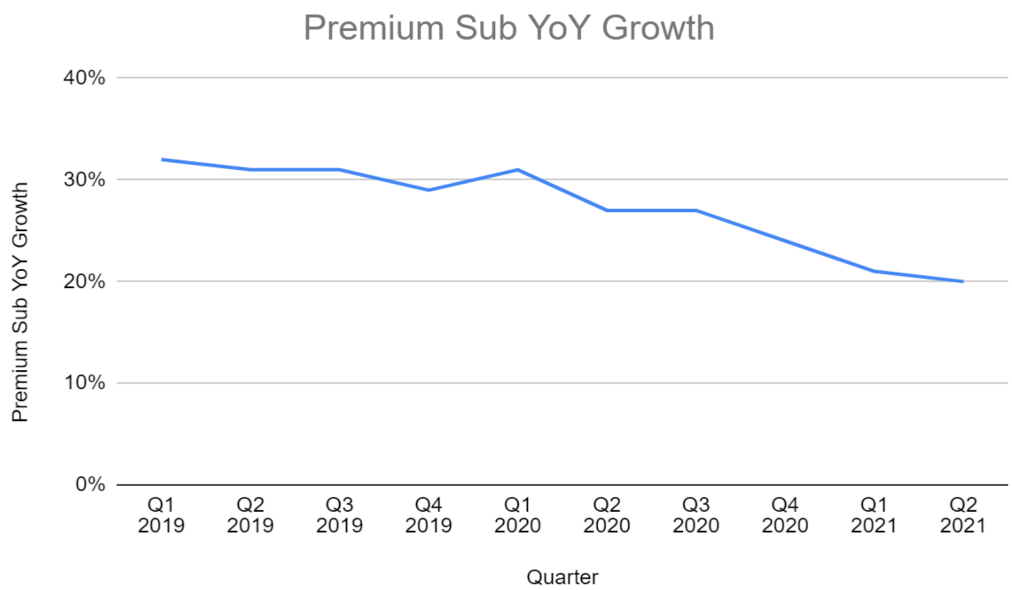
**Market Opportunity**

Spotify has consistently held around 33% market share in music streaming as it has scaled into a global player over the last five years. This has occurred in spite of the onslaught of platform competitors like Apple Music, YouTube Music, and Amazon Music. All these services have been pre-downloaded and/or bundled with other services from these tech giants, which in our minds serves as a fantastic moat test for Spotify's music subscription business. So far, they've passed with flying colors.

The world will have an estimated 7 billion smartphone users by 2030. 99% of these people will want to engage with music in some way on these devices (the majority on a daily basis). A lot, especially outside of North America, Western Europe, and other rich areas, will want to listen to music through an ad-supported platform. However, if the current mix is any indication, around 1 - 2 billion of these people will want to pay up for an ad-free music streaming experience.

If Spotify can grow premium music subscribers on average by 10% a year from now until 2030 (it is currently growing at 20%), it will have 241.5 million subscribers in 2025 and 389 million subscribers in 2030. 389 million subscribers are reasonable estimates if you believe Spotify can maintain its market share and that there will actually be 1 - 2 billion people around the world willing to pay for an ad-free music listening experience.

As you can see from the chart below, an average of 10% growth in premium music subscriptions would be a big slowdown from the current rate, and it is possible that Spotify could hit this 389 million target in less than 10 years. However, with a clear slowdown in year-over-year growth in the last 10 quarters, we believe a 10% growth rate is a reasonable assumption for the next decade (and if we're being really conservative, the next five years).




**Discovery/Promotions**

*"...we have more than 2 or even 3x the amount of engagement per user than some of our competitors do" - Daniel Ek, Q2 2021 Conference Call.*

What drives part of Spotify's competitive advantage is the intense focus it has on constantly improving the user experience and the reliance users have on Spotify helping them discover and catalog new music (creating a high switching cost). From the algorithmic playlist Discover Weekly, which had over 2.3 billion hours streamed from 2015 - 2020, to the editorial playlist Rap Caviar (the most sought-after real estate in hip-hop), which has 14 million followers, Spotify is the music tastemaker for hundreds of millions around the globe. This is a powerful asset that the company can continue to leverage over the next decade.

Since this is a semi-qualitative argument, a lot of investors disregard the "discovery" advantage we and other investors believe Spotify has. But if every service's music selection is a commodity, you have to ask yourself: **Why would Spotify consistently get 2x - 3x the engagement of its competitors?** The answer is that it is clearly providing more value to a customer compared to if that customer listened to music on Apple Music or any other service.

Spotify is leveraging its users' reliance on it for discovery by allowing artists and labels to pay to promote (i.e. advertise) their content across its service. This is what Spotify calls its Two-Sided Marketplace, and is a key way the company will expand gross margins over the next decade.

For example, the marquee tool allows artists to promote new or existing work to Spotify users with a full-screen pop-up advertisement (this typically occurs when a user opens the app). Marquee is a perfect way to leverage the data Spotify has on its user's listening habits to serve relevant advertisements that will actually work to improve an artist's reach (as opposed to radio, which is typically just a spray-and-pray operation). If the marquee tool works, it has the potential to improve the artist and user experience on Spotify, by matching users with new or existing content they would enjoy and upping an artist's stream count. This is a win for all parties.

The most exciting promotional tool (from an investor's perspective) is something still in beta testing called Discovery Mode. This tool allows artists and labels to market songs with no upfront cost. Artists choose what songs they want to be promoted on Spotify's playlists, and then it is Spotify's job to get its users to listen to those songs. If a user streams a promoted track, Spotify charges a small commission on that stream (which is how it will expand gross margins), but the artist pays no money upfront. It's possible this won't get wide adoption, but if the tool can help artists expand their fanbases, building lifelong customers for them, then we believe the value can be non-zero-sum, benefitting users (through a good discovery experience), Spotify (through higher gross margins), and artists (expanded fanbase) at the same time. According to Spotify, its users discover *16 billion* new artists every month. Over the next decade, it is slowly going to start monetizing those discoveries.

Discovery tools not only lead to expanding gross margins but have simultaneously contributed to a decreasing churn rate. Management doesn't disclose exact numbers, but they mentioned in Q3 2020 that the churn rate for the quarter fell below 4% for the first time, and in future quarters have mentioned that it continues to drop. For example, in Q2 2021, CFO Paul Vogel stated that churn was down year-over-year and quarter-over-quarter, but without giving out an exact number.

**Pricing Power**

It's impressive that Spotify is expanding gross margins while lowering churn at the same time. But on top of that, it is starting to raise prices on its premium service across the globe. Now, these have only been small so far, like the Family Plan in the U.S. going from $15 to $16 a month, but it shows how underpriced Spotify's premium services are at the moment that nothing was affected by this change. We believe the company is in a very similar situation to Netflix five years ago in its mature markets, where it seemed like it could raise prices two or three times with no impact on subscribers.

Spotify currently has four plans in the U.S. (the plans are similar around the globe but priced for specific markets):

- Single (one account, $10 a month)
- Duo (two accounts, $13 a month)
- Family (six accounts, $16 a month)
- Student (one account + Showtime and Hulu, $5 a month)

While the single plan is still providing incredible value at $10 a month for something people use daily, Spotify will likely flex its pricing power with Duo and Family Plan over the next decade since those are so underpriced at the moment. The student plan will likely always stay at $5 a month because it serves as a perfect customer acquisition tool on college campuses.

We also shouldn't forget to highlight why Spotify has pricing power, and it comes back to the increased engagement it gets compared to the competition. If Spotify is getting 2x - 3x the engagement, then, on average, each user is getting 2x - 3x the value from the service. This indicates Spotify has much more room to raise prices compared to someone like Apple Music. There are also fundamentally high switching costs for someone whose entire music experience is built on Spotify's algorithms and cataloging tools. And this switching cost only *increases* each year, likely contributing to Spotify's steadily *decreasing* churn rate.

If we're right, and Spotify has a long runway to flex its pricing power muscles, then average revenue per user (ARPU) should grow from here (it has steadily declined since the IPO). We have modeled a 3% annual price increase, although that may prove to be too conservative or too high, depending on how fast management wants to flex this muscle.

Currently, Spotify is bringing in $3 billion in gross profit from its premium business. If it can grow subscribers by 10% a year, expand gross margins slowly each year (going from 30.8% now to 36% in 2030), and increase ARPU by 3% a year, then the segment will do:

- $4 billion in gross profit in 2023
- $6.2 billion in gross profit in 2026
- $11 billion in gross profit in 2030

## Podcasts: An Audio Lollapalooza

*"it's clear to me that the days of our ad business accounting for less than 10% of our total revenue are behind us" - Daniel Ek, Q2 2021 Conference Call*

Over the last few years, Spotify has invested heavily into non-music content, specifically focusing on podcasts. It is now trying to become a global audio platform (in the words of management) instead of just a music streaming business.

What does that mean? In its simplest form, Spotify has three goals:

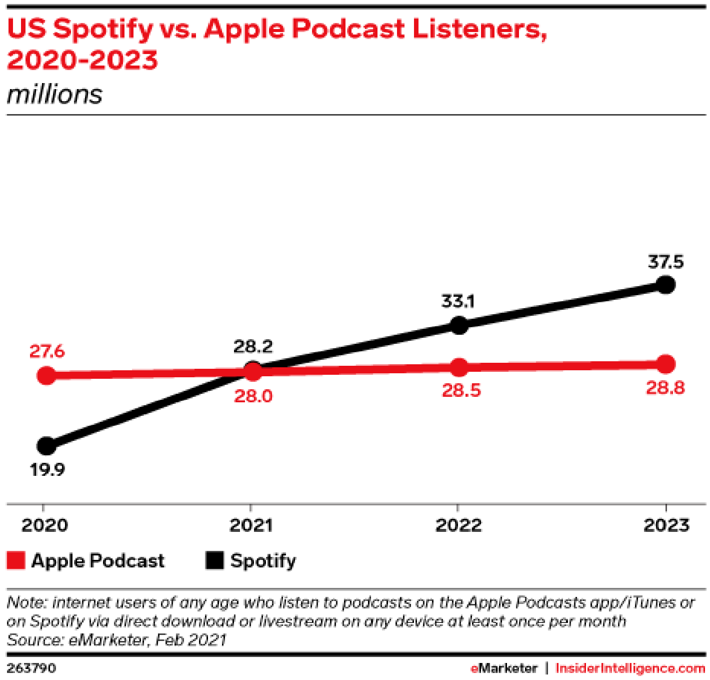
1. Get as many people listening to podcasts/non-music content.
2. Distribute/catalog as much of the world's audio as possible.
3. Build different ways for hosts/artists to monetize/distribute their work.

**Getting the listeners**

Spotify was late to the game in podcasts (it only fully opened podcasts to users in October 2018), while one of its top competitors, Apple, has dominated the medium for many years. This originally put Spotify in a difficult position, as getting listeners to engage with podcasts is a huge part of building a global audio platform, so it has had to get creative and spend some cash to dethrone Apple.

First, it invested in an internal podcast team called Spotify Studios, which likely kickstarted some podcast engagement on Spotify. Then, it bought three popular studios (The Ringer, Gimlet, and Parcast) to supercharge its content capabilities. A lot of the content these studios produce is not exclusive to Spotify's platform, but the company has that switch available if/when it ever feels the need to pull it. Lastly, Spotify has signed multi-year exclusive deals with top shows like the *Joe Rogan Experience*, *Call Her Daddy*, and *Armchair Expert.* These shows cost a lot to license but can be a great customer acquisition tool to get listeners to switch to Spotify.

As of Q2 2021, around 25% of Spotify's users engage with podcast content, which is around 91 million users. It now has 2.9 million podcasts on Spotify, up from 1.5 million a year ago. After 3 - 4 years of heavy investments, it looks like Spotify's podcast strategy has reached escape velocity. It is projected to pass Apple in market share in the U.S. this year, which is an astounding feat considering Spotify only started investing in the medium in 2018 (it also shows how little Apple seems to care about podcasts). And with the U.S. being the most mature podcast market, we believe Spotify will have a much easier time winning market share internationally.




*Source: eMarketer/Tech Crunch.*

**Powering the world's audio catalog**

It is clear to us that Spotify is winning the consumer side of podcasting. But it also has ambitions to power the creation side of the medium. This comes through its internal studios (listed above), exclusive shows, and the two distribution services it acquired: Anchor and Megaphone.

Anchor is a free podcast creation platform that is built for someone just starting a podcast. Spotify bought the service for ~$150 million in 2019 and has supercharged the service. The company estimates that Anchor powers ~80% of all new podcasts created on Spotify. With 1.4 million podcasts added to Spotify in the last 12 months, that means that over *1 million* shows were started on Anchor during that timespan. This is an incredibly useful asset that Spotify can leverage (we'll expand on that in the next section on monetization).

Megaphone is similar to Anchor but catered to professional studios. Bloomberg, the WSJ, ESPN, and Vox are some of the larger studios that are powered by Megaphone. Spotify bought Megaphone in late 2020 for $235 million. It won't have the volume of shows like Anchor, but it powers a lot more of the shows that are topping the podcast charts. We should note it also had an existing advertising network at the acquisition.

Distributing podcasts doesn't directly make Spotify money, but unlike with music, Spotify is now *vertically integrated* with podcasts, giving it the freedom to experiment with different money-making strategies like advertising.

**Monetization**

The key question for investors is how Spotify is going to make money through all these podcast initiatives. Or, put another way, how much return will they get on this $1 billion+ in invested capital?

At the moment, the number one way looks to be advertising. Specifically, by using streaming ad insertions (SAI) through the new Spotify Audience Network (SPAN). SPAN is the consolidated advertising platform Spotify recently launched that lets advertisers publish across its owned podcasts, Megaphone, Anchor, and ad-supported music. SAI is the new advertising technique where an ad is dynamically inserted into the content in a very similar way to YouTube. Hosts do not need to decide what will be advertised to each listener and advertisers do not decide the specific shows they will be on, simplifying the process for both.

Traditionally, podcast advertising was very analog. A host (and only if they got to a large enough scale) would have to reach out to an advertiser on their own, haggle rates, sign a contract, and then read the advertisement on each show (which can get terribly repetitive for listeners). Advertisers had to trust a host's download numbers, trust that they would read it correctly and had no insights into how well an advertisement worked or how many listeners skipped it altogether. SPAN fixes all of these issues, creating another non-zero-sum situation where all parties are in a better spot economically (Spotify itself makes money by taking a slice of every ad dollar from the podcast hosts). It is very similar to how Google treats YouTube advertising, and we believe SPAN can have similar unit economics and returns to scale (it is essentially the same product but with audio instead of video).

And this is not just advertising to Spotify's 90 million+ podcast listeners. With Anchor and Megaphone, which distribute content to all platforms like Apple, Google, and Overcast, Spotify can capture advertising dollars across the entire podcast industry, not just on its platform. However, since Apple still uses the antiquated RSS technology, it can't or doesn't choose to give nearly as good of analytics to hosts, limiting advertising targeting. This is another reason Spotify would rather have people listen to podcasts on Spotify, because of how much easier it will be to target advertisements.

Last quarter, Spotify did $322 million in advertising revenue, giving it a $1.29 billion annual run rate. Ad revenue (off of a weak 2020 base) grew 110% year-over-year in Q2, with total podcast advertising growing 627% inorganically and 200% organically. Gross margins are very low, at 11.3% right now, but that is because SPAN is less than a year old (COGS also includes all podcasts expenses/investments under the advertising segment which is masking the unit economics at the moment). With the high incremental margins each new advertising dollar brings in under this new format, we believe Spotify's advertising gross margins can expand rapidly within the next five years.

Don't forget that SPAN now powers ad-supported music as well. With a lot of future growth likely coming from poorer countries (compared to the U.S. and Europe), ad-supported MAUs should grow faster than premium subscribers in the next decade. This provides a sustained tailwind of advertising supply that Spotify can fill and pull a take-rate from.

If Spotify grows advertising revenue at a 30% rate from now until 2030 while expanding gross margins from 11.3% to 48.2% in 2026 and then 59.4% in 2030, advertising gross profit can grow at a 56.3% CAGR from now until 2030. That would mean Spotify would have advertising gross profit of:

- $145.5 million in 2021
- $2.3 billion in 2026
- $8 billion in 2030

We don't want to get caught up in the exact growth and margin numbers. We simply believe that Spotify's advertising business can compound at a high rate for many years and that this isn't reflected in the stock price right now.

Projection calculations:
https://docs.google.com/spreadsheets/d/1NW-cPmOyqtS9xEPNUE_xE_yhegrkBJcLpF40HL7Zwc4/edit#gid=1038763881

**Lollapalooza effect**

A prediction of 30% revenue growth over a decade is aggressive, but we believe it is logical because of the lollapalooza effect that is just getting started within audio advertising and podcasting. A lollapalooza effect is when multiple factors are all working in the same direction, creating a huge wave that a company can ride for many years. Here is a summary of what's happening within podcasting/audio advertising right now:

- **Category growth**. It is estimated that U.S. podcast listeners are growing at ~10% a year. This is likely much higher internationally.
- **Market share**. Spotify continues to win market share in podcasts worldwide, meaning that it is getting a larger slice of a continuously growing pie.
- **Supply growth**. Through its own initiatives that we detailed above, Spotify is unlocking potential advertising spots on Megaphone, Anchor, and its own shows.

- **Targeting capabilities**. Through its location, demographic, and interest data, Spotify can better target advertisements to listeners, which should increase advertising rates.
- **Fill rates**. If you listen to a show using SPAN, the advertising fill rate is low right now, meaning a lot of ad spots go by without an advertisement filling it. Over time, Spotify will increase these fill rates, unlocking even more growth.

Each of these on its own is nothing special. But combine everything together and we believe Spotify is rapidly building a competitively advantaged position within the podcast industry that can help it earn outsized profits for a decade or longer.

## Management: Long-term Thinkers and Capital Allocators

A key reason we own Spotify stock, even at ~16x TTM gross profit, is we think the management team is one of the best in the world. This includes the entire executive team plus founders they've acquired (like Bill Simmons at The Ringer and Michael Mignano at Anchor), but to keep this short we'll focus on the three most important: Daniel Ek, Paul Vogel, and Gustav Soderstrom.

**Daniel Ek (Founder/CEO):** Ek founded Spotify in 2006, and has been at the helm ever since. At only 38 years old, he has a tremendous track record of fending off huge competitors, entering large markets while keeping labels happy, and taking a big swing that has paid off (with podcasting). He also owns ~17% of Spotify's outstanding shares, meaning that the majority of his net worth is tied into this business. But our favorite part of Ek is what he articulated in his latest Invest Like the Best appearance, which is that he is insanely patient. He isn't expecting the world to move to on-demand audio overnight (neither are we), but by riding this audio wave, he and Spotify can build something great over the next decade and beyond. That might mean a delay in cash flow available for us business owners, but that is okay with us as long as the long-term cash flows are that much higher.  A young CEO with skin in the game and a long-term mindset gives us confidence that Spotify can be a holding in our portfolio for many years.

**Paul Vogel (CFO):** Vogel has been with Spotify since 2016 and took over as CFO in 2020. We love Vogel's capital allocator mindset, which he explained well at a recent investment conference when asked about Spotify's $1 billion share repurchase program. We would recommend reading the whole transcript to get an idea of Vogel's mindset, but here are some highlights that give us confidence in his ability to manage Spotify's balance sheet:

*"for us, it's always about what's the right use of capital. And the number one thing for us always is going to be investment. Are we investing enough in the business? And we will never do anything that will preclude us from investing as aggressively as we want to"*

*[directly talking about the buyback] "we're looking at it and saying, well, we have cash and having a lot of cash on the balance sheet that's getting no return. If we have enough to spend, is it always the most efficient. And quite frankly, we saw -- at the time when we thought it was a stock price that was undervalued."*

**Gustav Soderstrom (R&D and Product)**: While Ek takes on the big picture questions for Spotify, Soderstrom is the one directing the day-to-day engineering, design, data, and product decisions. He has been with Spotify since 2009, and in our minds is the heir apparent to the CEO role if Ek ever decides to take a step back from the business. There's not much quantitative data we can bring to show why Soderstrom is a great R&D officer, but he has likely had a huge influence on why Spotify has 2x - 3x the engagement over audio competitors, a key tenet of our investment thesis. Soderstrom also (of course) has a podcast on Spotify about building digital products. The entire show is worth listening to, but episode 5 stands out to us, where he and others discuss Spotify's transition to Google Cloud. The company had to thread the needle during the transition and it shows Soderstrom's logical decision-making when building Spotify's products.

## What Could Spotify be Worth Five Years From Now? (And what could go wrong)

Typically, when underwriting a potential investment, we like to conservatively project how much cumulative cash per share the business will generate within 3, 5, and 10 year periods. Then, we try and identify (there's no magic formula) what multiple of cash flow the business should trade at if we're correct on our thesis. Having two numbers (cumulative free cash flow and future cash flow multiple) allows us to run our version of a DCF and decide whether a stock meets our hurdle rate and/or is an improvement from any current stock we own.

With Spotify, we have to play a slightly different game. Since there likely won't be much free cash available to shareholders (Ek and the team have telegraphed their plans for reinvestment) within the next five years, we think the best way to value Spotify is on a multiple of annual gross profit (P/GP). But the question is: What multiple does it deserve? The stock currently trades at a P/GP of ~16, but to us, that feels expensive, even with a high-quality business like Spotify. Something closer to a P/GP of 10 feels reasonable, although again this is just an estimate and there's no reason Spotify couldn't trade at a P/GP of 8, 6, or much lower in the future (that is the risk with a business that continues reinvesting for the future).

If our projections for the music streaming and advertising businesses are correct, then Spotify will generate ~$8.5 billion in gross profit in 2026. On a P/GP of 10, that gives the stock a market cap of $85 billion, a 14.2% CAGR from today's prices. This excludes Spotify's stake in Tencent Music, as we have no clue what that will be worth five years from now.

And these projections only include Spotify's two revenue drivers *right now*, SPAN and premium music subscriptions. Given the optionality of a global audio platform with hundreds of millions of users, it is likely Spotify will have many more business units within five years. These could include:

- Audiobooks
- Spotify Greenroom (Clubhouse competitor they just acquired)
- Expanding the two-sided marketplace to podcasts
- Live events (virtual and tickets)

Will any of these become meaningful for Spotify? Maybe, maybe not. But we trust in Ek, Soderstrom, and the team to bet big if/when any new investment opportunities present themselves within the audio industry, just like they did with podcasts 3 years ago.

**What could go wrong?**

Like we hinted at above, a big risk for Spotify's stock is multiple compression. If the market ever decides to value the business at a mid-single-digit or lower P/GP, it will be tough for us to make adequate returns at the current share price within five years. We have no idea how likely that is to happen, but it could.

There are also risks with our projections being way too optimistic, which really just means we are too optimistic about Spotify's business prospects. Here are some things we think could impact Spotify's growth over the next decade:

**Good competition:** A "Spotify killer" from 2015 - 2020 was supposed to be Apple Music. That never happened, even with Apple's anticompetitive tactics vs. Spotify, so pretending that Apple Music will affect Spotify's future growth seems silly to us. However, over the next five years, YouTube and any of its ancillary offerings like YouTube Music and YouTube Premium have a chance of winning market share in audio/music from Spotify. Google (owner of YouTube) has a legit distribution advantage with Android, which has a 70%+ smartphone market share worldwide. YouTube, with billions of users around the globe, can upsell its music/audio service very easily. Unlike Apple Music, this could be a legitimate threat to Spotify, one that investors like us should be watching closely.

**Limited podcast potential:** A big part of our thesis hinges on the podcast/on-demand audio industry being much larger five or ten years from now. This is not guaranteed to happen. We see no reason why it won’t with all of the data points we currently have and the current trends in place, but that doesn’t mean it can’t happen.

**Distribution disruption**: It is hard to imagine a way to improve on on-demand/streaming music from a distribution standpoint. Spotify offers instant access to the world’s audio library which you can access from 99% of internet-connected devices. But with audio, and entertainment mediums in general, a new form of distribution will likely come at some point. Spotify will have to either evolve or defend its position to survive when this disruption happens.

While these risks should be evaluated and tracked, we believe any risk outside of multiple compression has a small chance of impacting Spotify’s business trajectory. The company has shown time and time again its ability to win vs. large competitors and should be able to ride an industry tailwind for many years.

## Conclusion

Our investment in Spotify can be summed up for these reasons:

- Global industry tailwind, margin expansion, and pricing power with streaming music subscriptions.
- Within three years, they’ve built a vertically integrated podcast business that can grow at a high rate for a decade or longer.
- Management has a long-term and capital allocators mindset.
- Outside of multiple compression, the risks to the business/stock are low.

In our minds, this adds up to a stock with a great risk/reward set-up over the next 3 - 5 years.