Spotify An Attractively Priced Target: CLTV Growth Driven by Hardware and Playlists

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12-Month Price Target \$185

Rating

BUY

November 14, 2018: (SPOT-NYSE) **\$134.01**

Perspectec's Streaming Music Thesis



Scale is a Competitive Requirement



Consumer Switching Costs are Higher in Music vs. Video. Playlists and Discovery Preferences are lost when Switching



Pricing Power Will Grow Over Time as Smaller Services Consolidate or Fail



Network Effects May Unlock Future Gross Margin Opportunities



Our Valuation of Digital Subscription Media Companies involve Multiples on TTM Gross Margin and CLTV Added

Spotify – Perspectec's Buy Thesis

Good Recurring Gross Margin Visibility

- Trailing metrics fail to contemplate dependable customer behaviour
- · Unique forecasting method provides bottoms-up approach to determining subscriber counts
- Positive signs that gross margins can inch higher
- Future churn should continue to decline
- Declines in ARPU should moderate in 1H/19

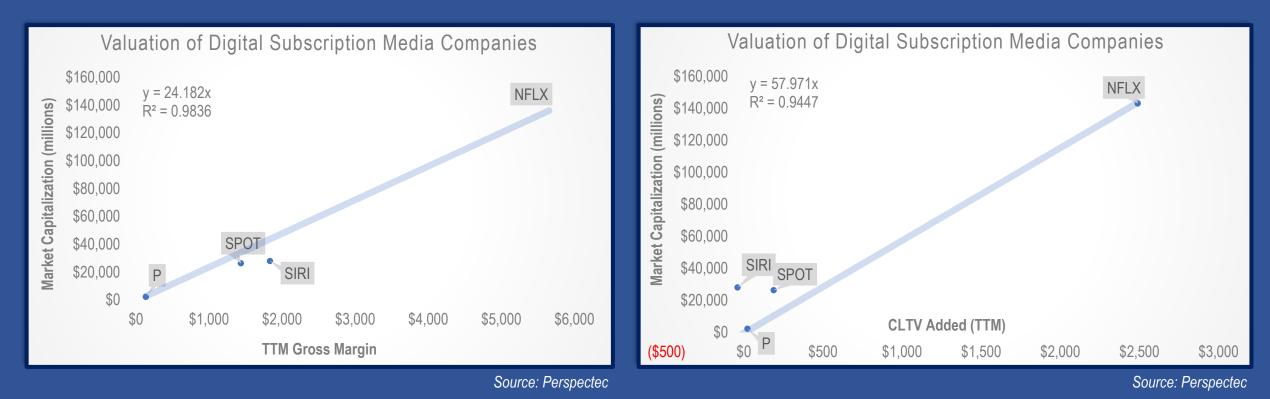
Hardware Has Become a Tailwind

- The dominant streaming service will be on Android
- Samsung partnership provides strong mobile footprint
- Spotify dominates the home speaker
- · Wearables presence will improve acquisition and retention
- Compatibility a potential problem for Apple

Spotify is an Acquisition Target

- SiriusXM / Pandora buyout offer supports this thesis
- Google / Amazon have balance sheets that support a buyout, share synergies
- Google has explored a buyout before at a similar valuation
- Amazon's interests with hardware would be augmented by Spotify's userbase
- Most of Daniel Ek's financial future is tied to SPOT stock performance
- Significantly higher fair value implied by our forecasts into Q4/19

Good Recurring Gross Margin Visibility Trailing Metrics Fail to Contemplate Dependable Customer Behaviour



Size of recurring revenue base matters

Growth of subscription contracts / stickiness matters

For Perspectec Subscribers Only

Good Recurring Gross Margin Visibility Unique Forecasting Method

Combining Streams, Surveys, Plans, and Promotions Globally into a Forecast

- We use data showing Spotify platform engagement by the day and by individual country level.
- Through proprietary survey data, we track Spotify penetration and churn
- We estimate the components of Premium ARPU based on the Global mix of plans being offered
- We combine these factors to come to a one-year forward path for premium gross margin growth

Good Recurring Gross Margin Visibility We Believe Our Forecast and Valuation Methods are Superior to Sell-Side Research

Spotify -1.5% as Pivotal issues first downgrade

Jul. 25, 2018 9:35 AM ET | About: Spotify (SPOT) | By: Jason Aycock, SA News Editor 🞽

- Spotify (NYSE:SPOT) is 1.5% lower as it gets its first downgrade, a day before it reports earnings.
- Pivotal Research has lowered its rating from Buy to Hold with an eye toward interest in Spotify "slowing materially," with "credible weakening global Google Spotify search trends data." The firm is lowering premium subscriber monthly active user estimates to 5.5M from 6M, and now sees fiscal 2018 subs at 92.5M rather than 93M. (h/t Bloomberg)

MKM raises Spotify target to match Street high

Aug. 22, 2018 9:43 AM ET | About: Spotify (SPOT) | By: Jason Aycock, SA News Editor 🔀

- MKM Partners has raised its price target on Spotify (NYSE:SPOT) to \$245, matching a Street high.
- Analyst Rob Sanderson points to the company's emergence as a key connection point between musical artists and their fans and the corresponding potential for revenue streams there, through such routes as analytics, data, ticketing, tour marketing and support, merchandise sales and more.
- At \$190.63, shares are now up 15% from their debut price in early April.

Others Follow Google Trends - Google searches and app installs fail to gather insight at the customer level. We interpret how much music is being listened to on Spotify per country and how this translates to subscriptions.

Bulls Use "Potential" Revenue - Analyst targets place excessive emphasis on ancillary services, with no clear near-term path. We do not ascribe value to unproven businesses

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We Have Correctly Anticipated the Last Two Beats. New Quarterly Data Points Should Improve our Forecast Model

Good Recurring Gross Margin Visibility Unique Forecasting Method

Q1/18	Q2/18	Q3/18	Q4/18E
Premium Subscribers	Premium Subscribers	Premium Subscribers	Premium Subscribers
Guidance – 73-76m Perspectec – 75.3m Actual – 75m	Guidance – 79-83m Perspectec – 84.3m Actual – 83m	Guidance – 83-87m Perspectec – 88m Actual – 87m	Guidance – 92-96m Perspectec – 95m Actual – ???
ARPU	ARPU	ARPU	ARPU
Perspectec – €4.70 Actual – €4.72	Perspectec – €4.81 Actual – €4.89	Perspectec – €4.73 Actual – €4.76	Perspectec – €4.80 Actual – ???

Source: Perspectec

- Our subscriber forecasts using our methodology had an average deviation of 866k subs versus the reported figures. We have correctly anticipated the past two "strong" subscriber beats versus guidance.
- Our estimates for ARPU have been within €0.04 of results. We account for the ARPU mix by country and by promotional activity. The majority of our APRU deviation is associated with subscriber count difference.

Good Recurring Gross Margin Visibility Tracking Stream Counts for 23 Major Spotify Markets

Stream Counts Translate to:

Content Hours

Monthly Active Users (MAUs)

Premium Subscribers

We use stream counts for the top 200 most popular tracks played in each Spotify market as a proxy for subscription growth. We have analyzed billions of streams across 23 of Spotify's major markets dating back to Q1/17 as well as four of its expansion markets launched at the end of Q1/18.

Observation at the country level is *necessary* to control for differentiated tastes in music that are ignored by a Global top 200 aggregate

# of	Top 200 Tracks P	layed
Country	Q3/18A	TTM Compound
country	Q3/18A	Quarterly Growth
United States	7,873,399,443	5.4%
Brazil	2,291,456,026	5.8%
United Kingdom	1,974,884,450	4.5%
Germany	1,971,872,014	6.3%
Mexico	1,739,162,926	2.2%
Spain	1,296,324,762	8.1%
Italy	1,280,882,787	18.4%
France	1,070,997,350	9.0%
Australia	1,052,456,543	5.4%
Canada	1,015,132,658	6.1%
Netherlands	959,745,612	2.0%
Phillipines	844,171,757	0.8%
Argentina	770,945,299	3.0%
Chile	740,660,455	7.6%
Indonesia	481,529,083	9.4%
Turkey	377,190,589	9.7%
Peru	337,253,007	4.5%
Poland	328,414,115	13.6%
Colombia	242,368,569	3.7%
Malaysia	175,842,279	1.8%
Japan	158,573,512	12.2%
Taiwan	104,665,681	-1.9%
Thailand	87,757,635	26.8%

Source: Perspectec, 2018 Launches Not Displayed

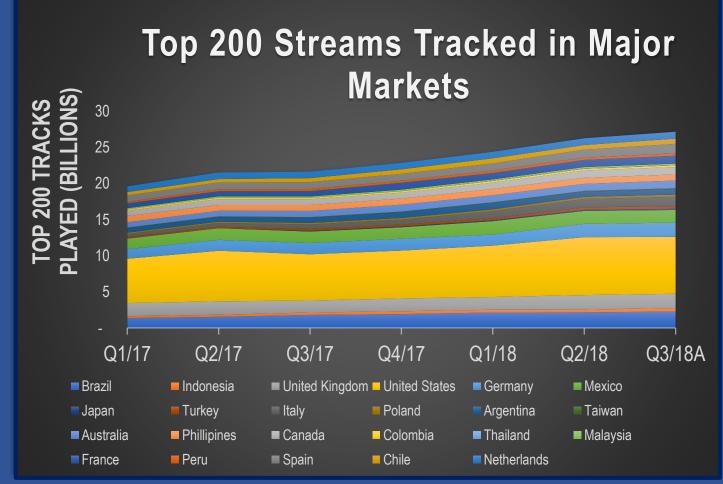
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Good Recurring Gross Margin Visibility - Unique Forecasting Method Stream Conversions to Premium Impacted by Market Launches & Partnerships

Subscription Revenue Forecast Driven by Top 200 Stream Counts by Country and Adjusted for:

- Changes in premium conversion trends due to partnerships (i.e. Samsung)
- New launches (Israel, South Africa, Vietnam, Romania)

- Plans & Promotions

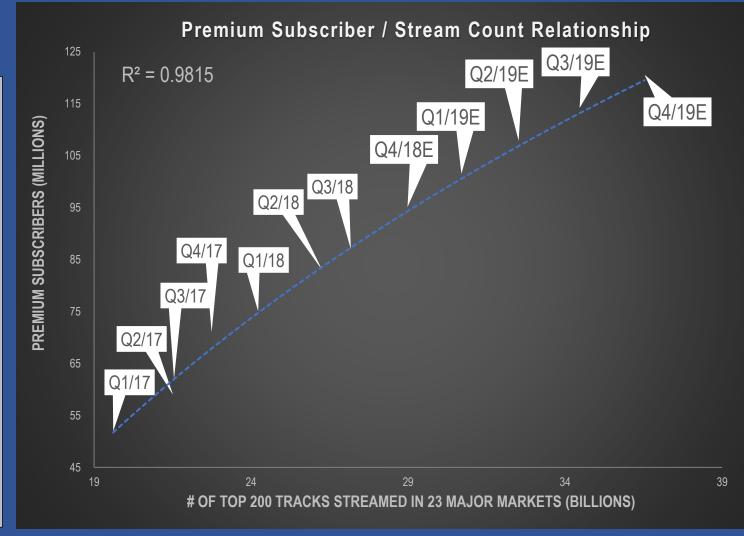


Source: Perspectec, 2018 Launches Not Displayed

Good Recurring Gross Margin Visibility Unique Forecasting Method – End Result is a Strong r² Model

A strong correlation exists between the # of top 200 tracks streamed per quarter and the end of quarter # of premium subscribers

- We use a slightly modified LN(X) Z model to predict premium subscribers
- Our Q4/19 subscriber estimate is based on current stream growth conditions and does not make assumptions about new market launches in 2019
- We estimate \$1,825 Premium TTM Gross Margin in Q4/19 given stream growth pointing to 121 million subscribers by the end of period



Source: Perspectec

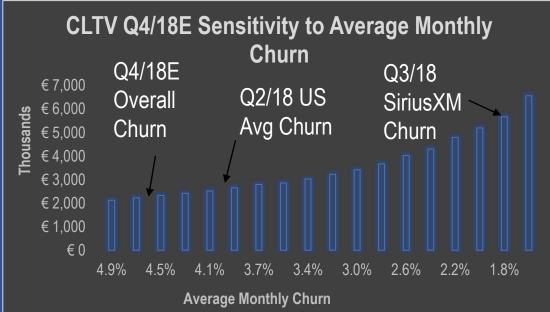
Good Recurring Gross Margin Visibility - Unique Forecasting Method Forecasting Streaming #s Suggest Large Net Subscriber and GM Adds

€ 4.000

€ 3.500

€ 3,000

€ 2.500



Source: Perspectec, Company filings

Compound Quarterly Growth Rate = 14.9% Thousands € 2.000 € 1,500 € 1.000 € 500 €0 0111 0211 0317 0417 0118 0218 0318 0418E 0119E 0219E 0319E

The subscriber gains we are forecasting remain the largest near term driver to CLTV, followed by steady improvement (decline) in average monthly churn

Spotify has reported results at the top end of their guidance gross margin range. Short-term gross margins are tied to performance metrics that determine royalty payouts to major labels. Subscriber additions, premium % of userbase, and churn are the relevant cited metrics

CLTV TTM

Source: Perspectec, Company filings

Good Recurring Gross Margin Visibility

Positive Signs that Gross Margins can Inch Higher Our confidence in near-term premium gross margin % beyond our LN(x) model is driven by 3 factors:

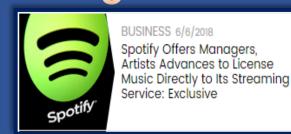
- 1) Spotify being the largest global music distributor Strong negotiating position with major rightsholders (labels). To the extent that rightsholders take a hard line approach, they harm the viability of Spotify's business as a distributor and risk disrupting their own revenue in the process.
- 2) Gross Margins have trended higher in the most recent negotiations - Our premium gross margin estimate (26.7% in 2019 vs 26.2% in 2018) does not rely on an aggressive or improved renegotiated split with major labels in 2019. We believe up to 100 bps of improvement is possible even if a similar major label margin structure to 2018 were rolled forward for another two years
- 3) We track the driving CLTV factors Spotify's ability to fall within the top half of its guidance ranges (excluding items) is driven by how effectively it acquires subscribers and reduces churn in order to drive a revenue-based royalty calculation for its split with major labels. These are factors that we believe we have good vision on and are explained later.

Good Recurring Gross Margin Visibility Split Mix is Improving w/ Growing Portion of Independents

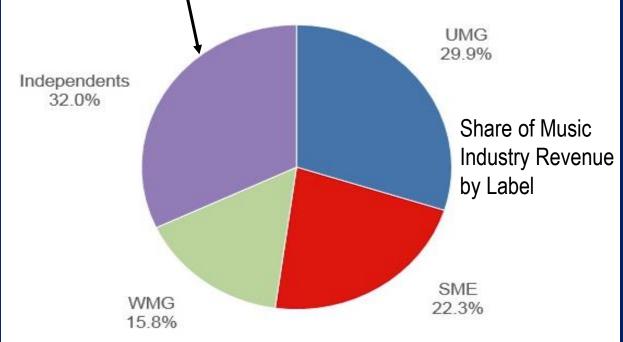
Source: Billboard

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MERLIN (17%) + Unaffiliated Independents and Unsigned Artists (15%)



Source: Perspectec estimates, Company Filings



Note: total includes physical/digital music sales, licensing and other revenue

Source: https://www.digitalmusicnews.com/2018/05/20/indie-labels-major-label/

- MERLIN + other independents/unsigned artists represent 28.4% of track streams on Spotify with 32.2% implied by the rapid migration of physical sales to digital
- According to a June article in *Billboard*, Spotify has already begun negotiating direct licensing agreements with independent artists not bound by contractual obligation at a "50/50 revenue split"
- Per *Billboard*, Big 4 rightsholders currently have an estimated 54/46¹ split with Spotify. This appears to be down from 58.5/41.5² in 2016 (this usually excludes mechanical and performance rights royalties which are also deducted)
- Independent label contracts are typically shorter and less onerous for artists, often only governing 1-2 albums
- Short contracts lead to a frequent coming and going of artists within independent labels represented by MERLIN as well as those outside
- We believe that Spotify will gain incremental gross margin benefit from signing direct licensing deals with artists exiting independent labels as well as those seated at the label periphery. Independents provide less of a value proposition if they aren't needed for recording and distribution

^{1 -} https://www.billboard.com/articles/business/7767810/spotify-merlin-licensing-agreement-indies 2 - https://www.manatt.com/Manatt/media/Media/PDF/US-Streaming-Royalties-Explained.pdf

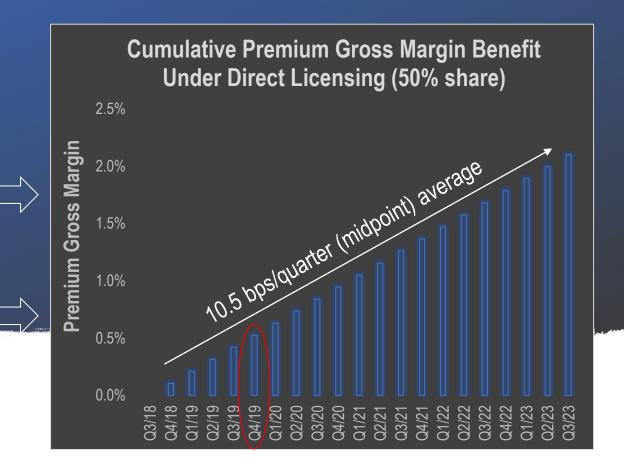
Good Recurring Gross Margin Visibility Details on Quantifying the Impact of Growing Independent Splits

100% share of the 1/3rd of streamed track plays estimated to be represented by independent artists at 50/50 revenue splits would result in approximately 320-520 bps of premium gross margin benefit depending on deal structure

Direct licensing on *half* of estimated independent track plays at a linear rate over the next 5 years (2.5% per quarter) would represent 8-13 bps of gross margin benefit per quarter

A 50 bps benefit in premium gross margin is reasonable by Q4/19 and doesn't account for any potential upside from stream delivery costs at a larger scale

We calculate a scenario where Spotify keeps half of revenue and one where they keep half of revenue remaining after mechanical and performance royalty payouts



Good Recurring Gross Margin Visibility Spotify's Differentiation Creates Gross Margin Upside



PREMIUM GROSS MARGIN LAST QUARTER IS 26%

ROUGHLY 100% OF SONGS ARE COMING FROM LABELS

GROSS MARGINS FROM INDEPENDENTS MAY BE 40%+

THIS BUSINESS MODEL STARTED IN JUNE 2018

HIGHER GROSS MARGINS

DRIVEN PRIMARILY BY A LOWER PORTION OF REVENUE COMING FROM LABELS Good Recurring Gross Margin Visibility Math Behind the Gross Margin Upside of Growing Independent Splits

Math Breakout:

((1/3*36.1)+(2/3*26.1)) = 29.3% -26.1% = <u>320 bps</u> / 5 years / 4 quarters = 16 bps*(50% share) = 8bps

((1/3*42.1)+(2/3*26.1)) = 31.4% -26.1% = <u>520 bps</u> / 5 years / 4 quarters = 26 bps*(50% share) = 13bps

Source: Perspectec estimates, Manatt, Phelps & Phillips, LLP

Current Estimated Gross Margin Scenario

\$1.00 - \$0.54 (Label take calculated by Billboard) = \$0.46
\$0.46 - \$0.06 mechanical royalty - \$0.06 performance royalty = \$0.34
\$0.34 - \$0.079 (stream delivery costs + payment processing + other fees) = 26.1% premium gross margin Q3/18

vs. Premium Gross Margin Spotify Would Achieve on the Portion of Music Attributable to non-Sony, Warner and Universal Music Revenues

<u>Mechanical/performance royalties paid before SPOT calculates split (320 bps)</u> \$1.00 - \$0.06 mechanical royalty¹ - \$0.06 performance royalty¹ = \$0.88 \$0.88/2 = \$0.44 Spotify + \$0.44 Artist/Manager \$0.44 - \$0.079 (stream delivery costs + payment processing + other fees) = 36.1% premium

gross margin

SPOT gets half of revenue, artist/songwriter/publisher get the other half (520 bps)

\$1.00/2 = \$0.50 Spotify + \$0.50 Artist/Manager/Songwriter (\$0.38 sound recording, \$0.06 performance royalty, \$0.06 mechanical royalty)

\$0.50 – \$0.079 (stream delivery costs + payment processing + other fees) = 42.1% premium gross margin

Good Recurring Gross Margin Visibility Reducing Churn is Another Driver for Higher Gross Margins

U.S. consumer surveys imply Spotify's churn associated with switching streaming services is nearing Netflix levels (18% per year)

Survey and Spotify's disclosures suggest up to 76% of U.S. users would like to pay for an ad-free experience over the long term

The majority of Spotify's premium customers stay on Spotify after churning

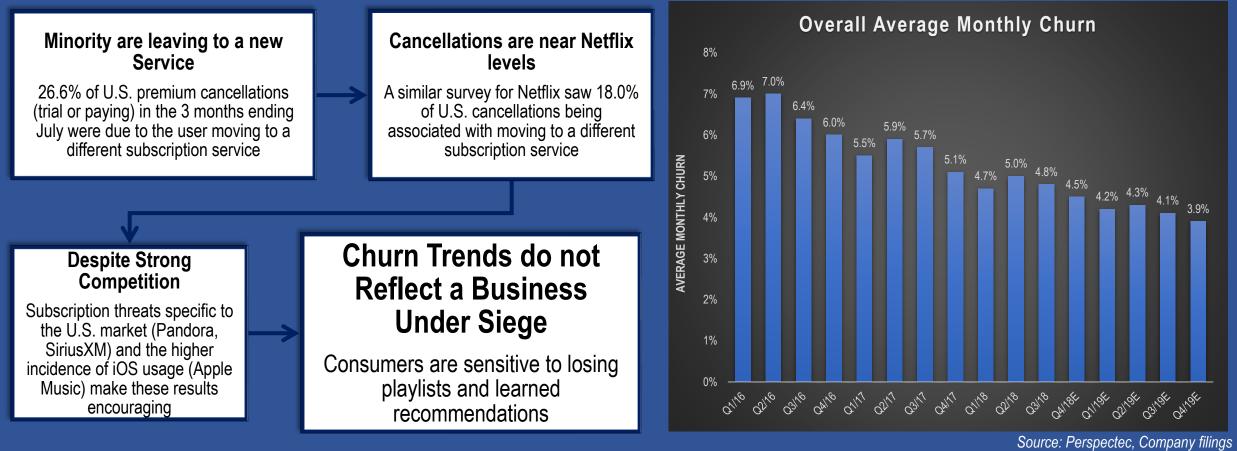
The pacing of country launches is masking a shortening churn/re-subscribe cycle

- Streaming music consumers face hidden switching costs not present in streaming video
- 2. Spotify's position as the de facto freemium service globally increase those costs

Good Recurring Gross Margin Visibility <u>Positive Signs that Gross Margins can Inch Higher</u>

Results from our July 2018 U.S. consumer survey suggest switching costs are almost as strong an effect as differentiated content. Fewer than 27% of cancellations are due to moving to a competitor

Source: Perspectec



Reducing Churn is Another Driver for Higher Gross Margins

Good Recurring Gross Margin Visibility Premium Subscribers Growth is Eating Away at MAUs (Premium Pipeline)

50% of cancellations are users bouncing between premium and free

Approximately one third of monthly churn is due to payment failure. Based on historical data from the beginning of 2015 to date, approximately 40% of the Premium Subscribers who churned rejoined within three months, approximately 45% rejoined within six months, and 50% rejoined within 12 months.

Source: Company filings

Payment failure (33%) is estimated to be a larger component of churn than switching to a competitor (26%) in the U.S.

Assuming all U.S. users try premium at some point and can pay, U.S. premium % of MAU has an upper bound of 76%. *Calculated as 100% - 24% who we estimate to be long-term ad-supported users*

24% of individuals who have tried premium in the U.S. are staying on ad-supported for periods longer than one year

This assumes 50% of churned customers return within a year and 26% leave to a competitor for longer

We estimate U.S. Premium % of MAU was approximately 35.9%, 41.6% and 47.4% in Q3 of 2016, 2017, and 2018 respectively

Good Recurring Gross Margin Visibility 16 Million U.S. MAUs; This Pipeline Growth is Slowing - The churn/re-subscribe cycle is shortening



76% premium MAUs on today's estimated U.S. MAUs of 52.7m = 16m additional U.S. subscribers
(52.7m*0.76=40m – 24m current estimated U.S. subs)



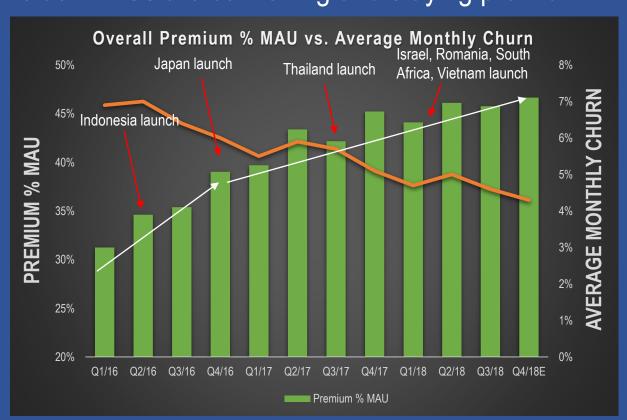
Churn makes 76% an unrealistic expectation, but the gap between the 76% of U.S. users who want to pay for premium and 47.1% who are is still large



Premium % of MAUs is increasing close to 6% per year over the last 2 years while churn dropped from 6.4% in Q3/16 to 4.8% in Q3/18



16m additional U.S. subscribers x approximate Q3/18 U.S. ARPU (~\$6.70) x Q3/18 Premium Gross Margin (26.1%) = \$1000m TTM Premium Gross Margin - Country launches are masking the rate at which older MAUs are converting and staying premium



Good Recurring Gross Margin Visibility Surprisingly Difficult to Copy the Spotify Experience

User-generated playlist: 36% of content hours

Cannot reproduce, requires the customer to spend time completely rebuilding playlists, switching costs increase with time spent on the platform, doesn't require any meaningful R&D spending

Non-playlist (primarily on-demand): 32% of content hours

No material difference between streaming competition. SiriusXM has talk and sports programming that is exclusive

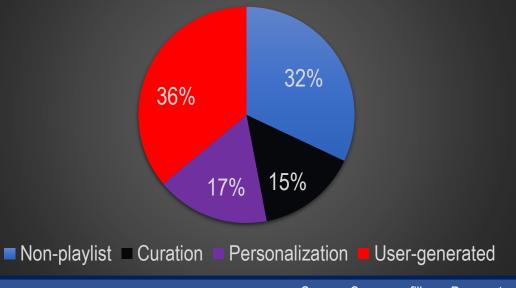
Personalized playlist 17% of content hours

Very hard to reproduce without customer bearing some switching cost, quality of personalization increases with content hours consumed on the service and R&D spending

Curated playlist: 15% of content hours

Easy to reproduce, but service provider gains operating leverage on what it pays curators. Curation quality could be impacted by amount of user data available to the service provider in individual markets

% of Content Hours by Content Type



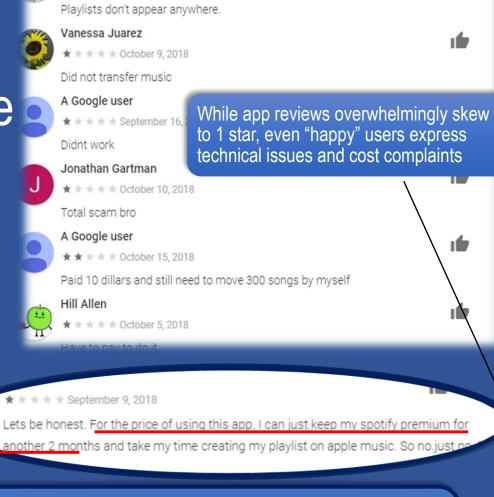
Source: Company filings, Perspectec

53% (personalized + user-generated) of time on the service cannot be replicated without the customer bearing hidden costs which scale with consumed content hours on platform

At a speed of 30s per song, it would take over 8 hours to find and categorize 1000 saved songs onto new playlists by hand

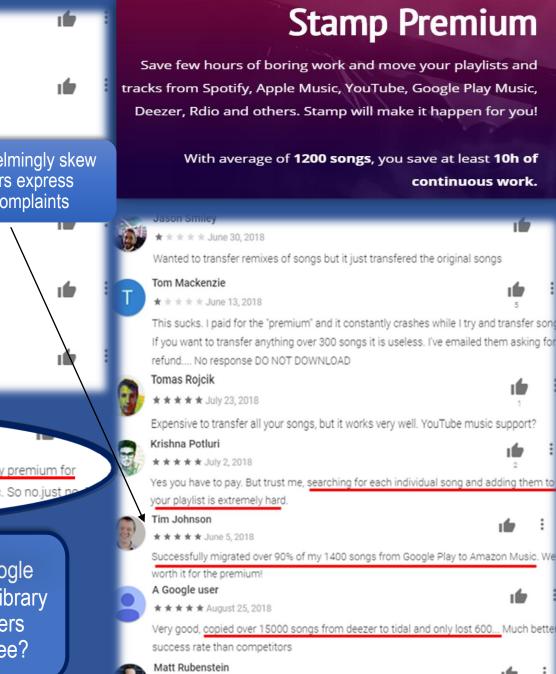
Future Churn Should Continue to Decline

Switching ain't Easy



* * * September 20, 2018

Stamp is one of the two most popular playlist migration services by Google search. In an era where Netflix has 137m subscriptions despite its entire library being accessible on 3rd party sites for free, what are the chances consumers meaningfully embark on this headache-filled exercise that has an actual fee?



* September 12, 2018

e to log in each time to each service, couldn't connect to Pandora at a

For Perspectec Subscribers Only

Churn Should Continue to Decline - Switching Apps aren't Great

STAMP: Music Importer Transfer Your Playlists

FreeYou REVIEWS	IrMusic LT	D Productivity		🕈 🛣 2,965 🚊	
**	2.3 ★★★	5			
	Basic	Desktop CA\$12.99	Bundle CA\$19.99 Save 50%!	iOS CA\$12.99	Android CA\$12.99
Windows	~	~	~	×	*
Mac	~	~	~	×	×
Linux	~	~	~	×	*
ios	~	*	~	~	*
Android	~	*	~	*	~
Songs per Session	10	unlimited	unlimited	unlimited	unlimited
Playlists per Session	1	unlimited	unlimited	unlimited	unlimited
Valid for		You pay	only ONCE and get lifetime updates	and support.	

Source: freeyourmusic.com, Google Play App Store

Stamp puts the cost of switching on Android at \$9.99 USD or \$12.99 CAD, around the price of an additional month of any premium service (assuming the app works)

↑ 2		Soundiiz replacement (self.audiophile) submitted 1 year ago by jrdoe
*		Anyone know how to convert Spotify playlists to Tidal? Soundiiz is now charging for their service.
		4 comments share save hide give gold report crosspost
all 4	comme	ents
sorted	l by: <u>best</u>	×
▲ E] deathfror	mababe Two paper cups connected by string 1 point 1 year ago
🐺 Re	eally? So	undiiz! Why?????
		t wasn't even that good since it would frequently not be able to find a match. I cannot believe anyone would at service.
pe	ermalink e	mbed save give gold
		Source: reddit.com/r/audiophile
S	oundi	z. a second popular service advertises a US\$4.50 monthly subscription

Soundiiz, a second popular service advertises a US\$4.50 monthly subscription (US\$36 annually) but users share similar technical and cost complaints

Houdini and Songshift, the highest satisfaction apps we could locate **in any app store** at 4.8/5 and 4.6/5 stars respectively, *are only available to iOS users* and cost \$2.99-\$3.99 USD



Great when it works, frustrating when it doesn't

When it works it does what it says. It can't seem to recover from crashes though. You have to delete and reinstall the app losing all the "shifts" that were previously done. That makes it currently dang near impossible to use for syncing. It might completely choke on a Playlist one run and not the next with no indication to the user as to why. If you have patience it's OK. If not you may end up frustrated. Five stars if the developer can fix the crashing, add some kind of crash recovery, and/or backup of "shifted" Playlist.

Source: https://itunes.apple.com/us/app/songshift/id1097974566

Migration apps still take time to locate and use, face low rates of adoption, don't work as advertised or lack important features. Barriers consumers face even if they want to switch providers help solidify their decision to stick with their first paid streaming service

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Future Churn Should Continue to Decline Spotify Users Remain the Most Loyal

- 36% of stream users are a no or unsure if a lower price point would entice them to switch services. Music rights as a shared input makes it practically impossible for a smaller service to compete on price for the remaining 64%
- 72% are willing to pay for a subscription music product (consistent with our 76% estimate for Spotify in the U.S.)
- 71% describe discovery algorithms as "somewhat" or "very" important. Algorithm quality scales with platform use and R&D (a SPOT strength). An algorithm interpreting a user with no data cannot produce the results of one with data
- 71% of stream users vs. 47% of non-stream users describe discovery algorithms as "somewhat" or "very" important. Discovery's value becomes even more apparent as you begin to engage with the service. This large disparity *implies* stickiness caused by discovery
- 29% of Spotify users would subscribe to a competitor vs.
 37% of Apple Music and 32% of Pandora. More existing Apple Music Users describe Spotify as a preferable choice than visa versa in Apple's top market (U.S.)

Even more robust U.S. survey data confirms our findings

Don't Know / No										
Demographic										
Adults	64% (625	i)	20% (196)		16% (15	1)		971		
Table BRD5: What is the most you would be willing to pay for a music streaming service without any ads?										
	\$4 or less per		\$10 per	\$15 per	\$20	or more				
Demographic	month	\$5 per month	month	month	per	month	No	ne Total N		
Adults	25(7 (514)	2007 (425)	22% (479)	5% (10	2) 2%	(25)	28% ((606) 2201		
Aduits	25% (544)	20% (435)	22/0 (4/9)	570 (10	2) 270	(35)	2070	2201		
Aduits	25% (544)	20% (435)	22/0 (4/9)	570 (10	2) 270	(33)	2070 (2201		
Table BRD4_8: How important are e					2) 270	(33)	2070 (2201		
					2) 270	(33)	2070	(000) 2201		
Table BRD4_8: How important are e			reaming music se	rvice?	2) 270 Not at al		Don't Kno	()		
Table BRD4_8: How important are e		g features in a st Somewh	reaming music se	too	,	1		ow /		
Table BRD4_8: How important are e Good algorithms to find new music	ach of the following	g features in a st Somewh	reaming music se at Not nt impo	too	Not at a	1 1t	Don't Kno	ow / Ion Total N		
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Pandora User (72) 5% (74)41% (267)32% (209)11% (33)11% Non-Streaming Service User 22% (276)25% (313)13% (159)9% (115)30% (367)

Table BRD3: If you had to choose, which of the following streaming services would you subscribe to?

Demographic	Apple	Music		Sp	otify	Par	ndora	Total N
Apple Music User	63%	(138)		12%	(26)	25%	(55)	219
Spotify User	10%	(35)		71%	(257)	19%	(68)	361
Pandora User	12%	(63)	R	20%	(107)	69%	(374)	543

Source: Morning Consult National Tracking Poll #180314 3/10/18

654

1230

Good Recurring Gross Margin Visibility Positive Signs that Gross Margins can Inch Higher

Future Churn Should Continue to Decline

SPOT's Global content hours on non-Apple devices with their ad-supported free tier is the fastest growing market opportunity

The average Global churned subscriber from Apple, Google, or Amazon will arrive at Spotify, being the leading global **Freemium** service

Switching cost remain material. Loyalty platform is Increasing as product offerings are similar. When shifts happen, they move towards cheaper services

For Perspectec Subscribers Only

Good Recurring Gross Margin Visibility Declines in ARPU should moderate in 1H/19 ARPU Declines are Slowing

Base Plan Types

- 2016 family plan price change are digested
- Relative impact on ARPU only occurs at the margins going forward
- Reporting differences make plans appear more harmful than reality

Promotions

Relative impact on ARPU is declining

Regional Pricing

- Primary long-term driver in declines
- Modest impact near-term with future pricing levers

SPOT ARPU Declines Decelerating



Source: Perspectec

Good Recurring Gross Margin Visibility Declines in ARPU should moderate in 1H/19 Plan types, not promotions / regional mix have been the largest driver in ARPU decline ex-FX

Base Plan Type

- Approximately 61% mix of lower priced family and student plans estimated for existing premium userbase
- Remaining 39% of subscribers are on a "single-license" non-student plan. Trials and promotional users must fall in this category
- Promotional does not equal free. Annual Plans (sold at Christmas or through Costco) and Hulu bundles are examples of promotional plans that offer a lower annualized price point for services
- Other than unfavorable FX movements, sharp declines in ARPU over the past 2 years are most attributable to proliferation of the family plan across the existing userbase
- Management has indicated the number of users classified under family plans is likely to increase primarily at the margins going forward
- We estimate a 1% increase in family plan subscribers as a % of overall would reduce ARPU by approximately €0.03 in our model currently but note this is unlikely to occur as household sizes remain fairly stable

What are the restrictions on the members I can add to Premium for Family?

To be added to Premium for Family, a person must:

- Reside at the same physical address as you.
- Be a Free user, or a Premium user who purchased their Premium directly from Spotify (and not, for example, through iTunes or a mobile operator).

Can Premium for Family be used with other plans such as student discounts, or plans joined through a phone company, etc.?

Sorry, no. Any discounts cannot be applied to Premium for Family accounts.

Source: Spotify

		Q1/18		Q2/18		Q3/18	
PREVIOUS YEAR (2017) PREMIUM ARPU		€	5.46	€	5.53	€	5.06
YoY ARPU DECREASE ATTRIBUTED TO FAMILY PLAN	<	£	0.24	£	0.21	£	0.17
YoY ARPU DECREASE ATTRIBUTED TO FX		£	0.40	£	0.30	÷	0.10
YoY ARPU DECREASE ATTRIBUTED TO REGIONAL/PROMO MIX		£	0.10	£	0.13	£	0.06
PREMIUM ARPU (2018)		€	4.72	€	4.89	€	4.73

Source: Perspectec

Good Recurring Gross Margin Visibility Declines in ARPU should moderate in 1H/19

SPOT counts Family Plan sub-accounts as "premium subscribers" in the divisor to premium revenue (standard practice in streaming music)

NFLX does the opposite, reporting the quantity of subscriptions sold but not the # of "subscribers" or concurrently used "screens"

Revenue would be the same if either service reported like one another while ARPU and "subscribers" would be different. Investors show favorable sentiment on increasing ARPU

SPOT's Premium COGS are largely based off the greater of a percentage of SPOT's revenue or a per user amount. The most recent 10-Qs indicate they have been paying the revenue-based royalty calculation to labels. **Family sub-accounts aren't driving up Premium COGS**

SPOT

Premium Subscribers

We define Premium Subscribers as users that have completed registration with Spotify and have activated a payment method for Premium Service. Our Premium Subscribers include all registered accounts in our Family Plan. Our Family Plan consists of one primary subscriber and up to five additional sub-accounts, allowing up to six Premium Subscribers per Family Plan Subscription. Premium Subscribers includes subscribers in a grace period of up to 30 days after failing to pay their subscription fee.

Source: Spotify filings

NFLX

(1) A membership (also referred to as a subscription) is defined as the right to receive Netflix service following sign-up and a method of payment being provided. Memberships are assigned to territories based on the geographic location used at time of sign-up as determined by our internal systems, which utilize industry standard geo-location technology. We offer free-trial memberships to certain new and rejoining members. Total members include those who are on a free-trial as long as a method of payment has been provided. A membership is canceled and ceases to be reflected in the above metrics as of the effective cancellation date. Voluntary cancellations become effective at the end of the prepaid membership period, while involuntary cancellation of the service, as a result of a failed method of payment, becomes effective immediately.

Source: Netflix filings

Family plans do not negatively impact the ASP per subscription, but do create inactive subaccounts over time, which lower ARPU

Good Recurring Gross Margin Visibility Declines in ARPU should moderate by 1H/19

While Inactive sub-accounts lower premium ARPU, they cost Spotify nothing under label arrangements

We estimate 4m inactive premium accounts, mostly subaccounts of Family Plans that correspond with Spotify moving from \$9.99 + \$4.99 per sub-account to \$14.99 for one master account and up to 5 sub-accounts in 2016

108m Ad-MAUs + 87m Premium Subscribers – 191m MAUs = 4m Inactive Subscribers

ARPU ex-inactive subscribers would be approximately €0.30 (5%) higher in Q3/18

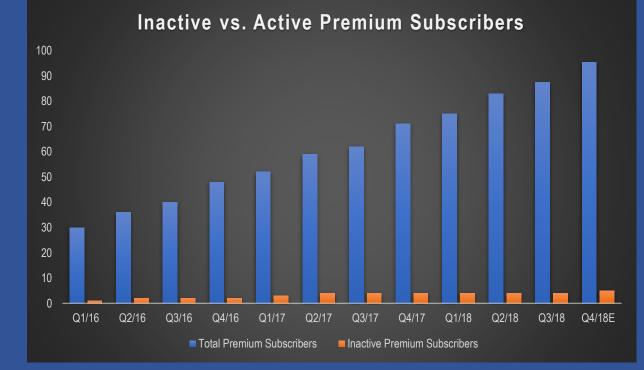
(Premium revenue / Average subscribers ex-inactives in period / 3 months) = €5.03

```
(1210 / ((83m - 4m) + (87m - 4m) / 2)) / 3 = \notin 4.97
```

€4.97 – Q3/18 ARPU €4.73 = €0.24

14.5% of overall Premium ARPU decline from Q1/16 to Q3/18 can be tied to inactive accounts, the growth of which has largely stalled as Family Plan price changes have been absorbed and the number of first-time trial users has shrunk

Q1/16 ARPU €6.38 – Q3/18 ARPU €4.73 = €1.65 €0.30 / €1.65 = 14.5%



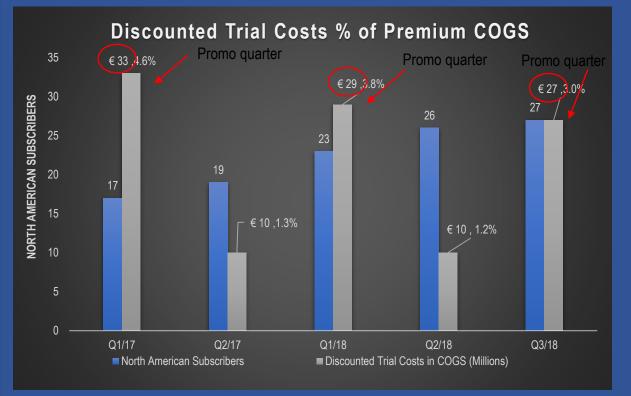
Source: Company filings, Perspectec estimates

Good Recurring Gross Margin Visibility Declines in ARPU should moderate by 1H/19

Discounted trial costs indicate promotional effects are decreasing

Promotions

- We estimate subscribers under an active promotion fluctuates between 11%-14% of premium subscribers in 2018
- This includes first-time trial plans as well as those benefitting under separate hardware or service bundles (PlayStation, Hulu, Showtime, Fido Pulse, Costco/Holiday Annual Plan)
- Promotional or bundled plans cannot fall under the umbrella of a family or student plan (estimated 61% of userbase)
- Spotify's bi-annual 3-month (\$0.99) trial remains by far the most popular promotion
- Costs (recorded in premium COGS for this promotion) are stagnant on a euro basis and in decline as a percentage of overall premium COGS. *These costs follow their ARPU effects over time*



Source: Company filings, Perspectec estimates

Example:

An individual subscribes on December 15th with a 3-month 99-cent promo. Revenue and COGS associated with this are recognized over the next ninety days, majority of which is in the subsequent quarter. These negative "after promo" shocks are shrinking as a percentage of premium COGS

For Perspectec Subscribers Only

30

Good Gross Margin VisibilityRegional / promo mix explainedARPU Declines should moderate by 1H/19~20% of ARPU declines in 2018

LATAM Blended	\$ 5.24	x`	USD		
MEX Premium	\$ 5.48	NA Blended	\$	9.77	
COL Premium	\$ 5.51	INA Diendeu		5.77	PREVIOUS
PERU Premium	\$ 5.86	US Premium	\$	9.99	YoY ARPU
URU Premium	\$ 5.99	CA Premium	\$	7.79	YoY ARPU
D.R. Premium	\$ 5.99				
PAR Premium	\$ 5.99	EU 28 Blended	Ş	11.52	YoY ARPU
PAN Premium	\$ 5.99	EST Premium	\$	8.62	PREMIUM /
NIC Premium	\$ 5.99			and the second se	
HON Premium	\$ 5.99	ICE Premium	\$	12.33	
GUA Premium	\$ 5.99	ROM Premium	\$	6.15	
EL SAL Premium	\$ 5.99	UK Premium	\$	14.22	
EC Premium	\$ 5.99	GER Premium	\$	12.33	
COSTA Premium	\$ 5.99	GRE Premium	\$	8.62	
BOL Premium	\$ 5.99				
CHILE Premium	\$ 5.85	POL Premium	\$	5.91	
ARG Premium	\$ 3.42	NOR Premium	\$	14.03	
BRA Premium	\$ 4.93	DEN Premium	\$	16.40	
ROW Blended	\$ 4.62	CZE Premium	\$	7.39	
SING Premium	\$ 7.54	FRA Premium	\$	12.33	
HK Premium	\$ 7.39	ITA Premium	\$	12.33	
TAI Premium	\$ 5.08				
TUR Premium	\$ 3.41	SPA Premium	\$	12.33	
MAL Premium	\$ 3.84	IRE Premium	\$	12.33	
PHI Premium	\$ 2.48	SWE Premium	\$	11.68	
CYP Premium	\$ 8.63	FIN Premium	\$	12.33	
AUS Premium	\$ 9.32				
NZ Premium	\$ 11.03	BEL Premium	\$	12.33	
S.A. Premium	\$ 4.99	POR Premium	\$	8.62	
ISRAEL Premium	\$ 5.67	NETH Premium	\$	12.33	
VIET Premium	\$ 2.60	LUX Premium	\$	12.33	
THAI Premium	\$ 4.14		\$	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	
INDO Premium	\$ 3.63	LITH Premium		8.62	
JAP Premium	\$ 9.30	SLO Premium	\$	7.39	

		Q1/18		Q2/18		Q3/18	
PREVIOUS YEAR (2017) PREMIUM ARPU		€	5.46	€	5.53	€	5.06
YoY ARPU DECREASE ATTRIBUTED TO FAMILY PLAN	<	÷	0.24	-€	0.21	-€	0.17
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YoY ARPU DECREASE ATTRIBUTED TO REGIONAL/PROMO MIX		-€	0.10	-€	0.13	- €	0.06
PREMIUM ARPU (2018)		€	4.72	€	4.89	€	4.73

Our base estimation of ARPU uses populationweighted averages converted to US dollars

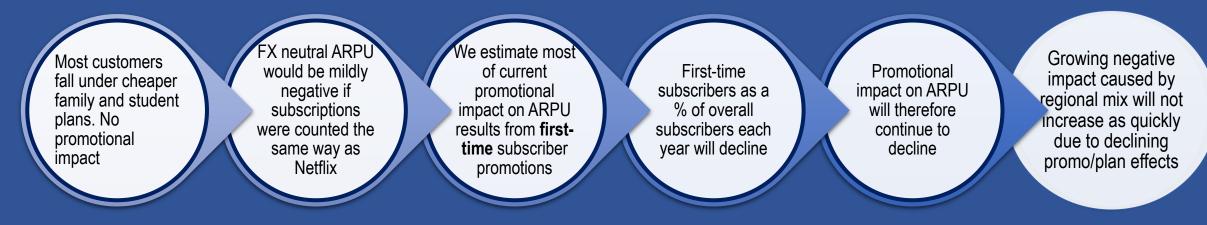
We estimate ARPU changes from regional and promo mix will have contributed to less than 20% of estimated €0.52 ARPU decline in 2018 vs. 2017

		2017		2018	2019
Premium ARPU (€)	€	5.32	€	4.80	4.61
Premium		3,674.0		4,726.9	5,934.5
Dollar change in Premium		244.0		310.9	296.9
Premium - Y/Y Change		38.3%		28.7%	25.5%

Source: Perspectec

Source: Perspectec, based on local currency pricing as of 3/31/18 converted to dollars at current FX rates

Good Recurring Gross Margin Visibility Declines in ARPU should moderate by 1H/19 ARPU Declines from International Expansion are being Offset by Less Promos



Assume:

€0.104 of 2017/2018 ARPU declines attributable to regional/promo (20% of €0.52 stripping away FX and family plan effects) €0.104 = €0.06 - €0.07 Absorbing international users

+ €0.03 - €0.04 Decline in standard "single-license" prices due to promotions (Annual/Bundle plans net of changes in number of trial users)

If 13m of the 26m net new subscriber additions we estimate in 2019 are family plan accounts with an average household size of 3, we estimate an impact of €0.08 to ARPU bringing an approximate FX-neutral ARPU decline of €0.184 in 2019 if regional/promo impact matches 2018

Hardware Growth Has Become a Tailwind

Growing Platforms Globally w/ Android, Samsung TV, Apple Watch

Spotify Dominates Home Speakers

Wearables will Improve Acquisition and Retention

Compatibility a Potential Problem for Apple

From a note to subscribers by Loup Ventures' Gene Munster:

- In July, Tim Cook reported that Apple Music became the market leader in terms of paid subs in North America and Japan. We estimate Apple Music has 21m North American subs vs. Spotify at 20m.
- Adjusting for addressable market (we estimate that 95%+ of Apple Music subscribers are on iOS), Apple is converting potential customers into paying customers at a rate 2.5x faster than Spotify.
- Apple's higher conversion rate can be attributed in part to iPhone owners having more disposable income compared to Android owners. A second, more material contributor is Apple's ownership of iOS which distributes a seamlessly integrated music experience along with prompts to get iPhone owners to subscribe.
- Spotify still controls the global paying music streaming market with about 62% share, down slightly from 65% in Sep-17. Apple has grown to 34% from 30% in Sep-17. Pandora has lost share from 6% to 4%.

Source: Loup Ventures

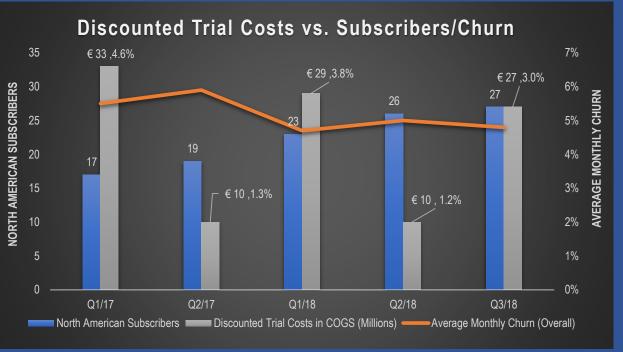
Hardware Growth Has Become a Tailwind # of North American Apple Music and Spotify Subscribers Roughly Even

• In July, Tim Cook reported that Apple Music became the market leader in terms of paid subs in North America and Japan. We estimate Apple Music has 21m North American subs vs. Spotify at 20m.

		Spotify	Apple Music				
In Millions	Address	Addressable Market: 2,500 Adds Conversion rate 6.0 0.24%	Addres	sable Market: 780			
Quarter	Adds	Conversion rate	Adds	Conversion rate			
Dec-17	6.0	0.24%	5.0	0.64%			
Mar-18	4.0	0.16%	3.0	0.38%			
Jun-18	8.0	0.32%	7.0	0.90%			
	Average	Conversion: 0.24%	Average Conversion: 0.64%				

Source: Loup Ventures

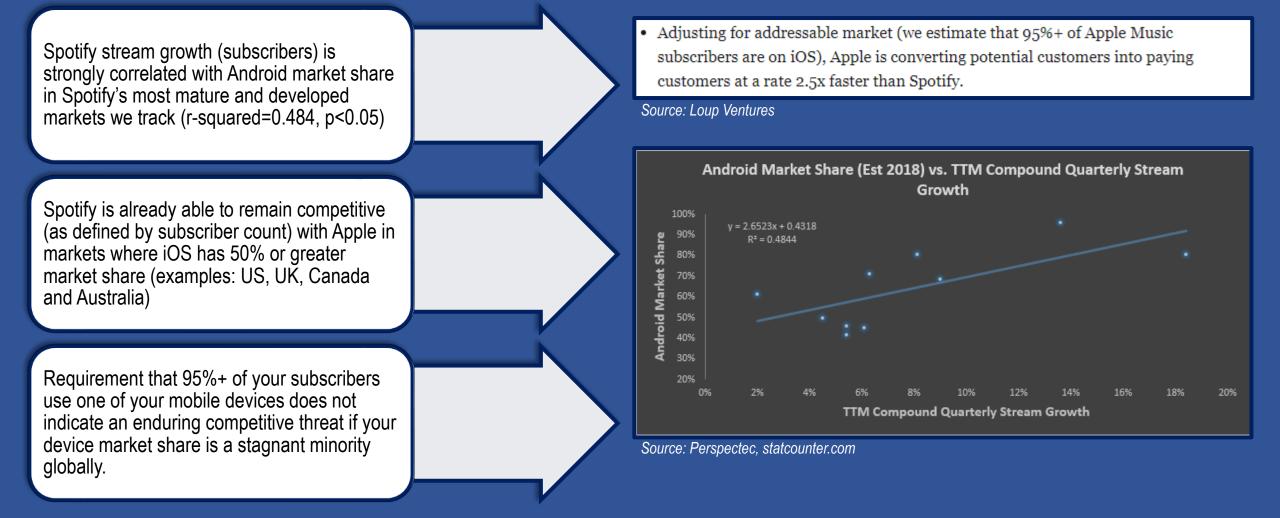
For Apple to have a paid subscriber lead in July, 6M (23%) of 26M Q2/18 total North American subscribers would have to be trial while discounted trial costs declined on a percentage basis and have remained flat to declining on a euro basis. These costs and their ARPU effects are meaningfully recognized in the quarter following the promotion making this very difficult to reconcile



Source: Perspectec

We estimate Spotify's addressable market to be approximately 1.5B based on the countries it operates in. Market research firm Ovum estimated there were 1.3B smartphone users in countries Spotify operated in at the end of 2017. Relative conversion rates appear overstated by counting phones in markets Spotify doesn't even reach

Hardware Growth Has Become a Tailwind Spotify Benefits from Riding the Android Wave

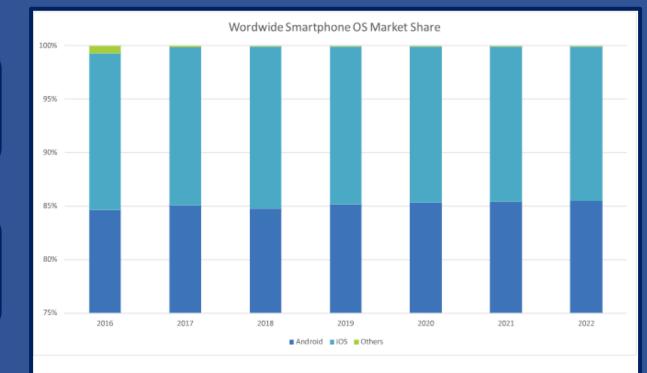


Hardware Growth Has Become a Tailwind Spotify Benefits from Riding the Android Wave

Android is Forecast to Remain the Dominant OS Globally

Apple Music Relies on its Own Hardware to Bring in Subscribers

Music Streaming Growth is a Global Phenonium



Year	2016	2017	2018	2019	2020	2021	2022
Android	84,6%	85,1%	84,8%	85,2%	85,3%	85,4%	85,5%
iOS	14,7%	14,7%	15,1%	14,8%	14,6%	14,6%	14,5%
Others	0,7%	0,2%	O,1%	0,1%	0,1%	O,1%	0,1%
TOTAL	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Source: International Data Corporation (IDC), percentages represent share of unit shipments

Hardware Growth Has Become a Tailwind Early Strong Results from Spotify's Focus on Artists Leveraging Hardware Platforms

Android puts the artist in front of the largest possible audience

Artists engage more actively with a platform that augments their touring revenue stream More people shift to where artists are focusing their attention. You don't even need to get into artist "services revenue" to see why this is intelligent "....artists make almost all of their money from touring, so the value of a digital service is it builds an audience, and then they [artists] monetize the audience, in today's market, with touring." - Barry McCarthy, CFO

Over the long run our goal is to manage the consolidated business to 30%+ Gross Margins. We outlined our long-term margin goals for the business at our **Investor Day** on March 15, 2018. Those goals are informed by a vision for building a two-sided marketplace where millions of artists can reach millions of fans. To succeed, we said we need to help more artists connect with more fans. The path to success involves building services and tools for labels and artists focused on promotion, marketing, and career management. This will be a multi-year journey, but we're making exciting progress. In the last quarter we have grown the number of unique artists listened to on our platform by 5%. Additionally, Spotify for Artists, our platform where artists can manage their profiles, is now used by 200k artists monthly. In its first 9 months Monthly Active Artists grew by 100k and doubled in the next 6 months. Expect regular updates on our progress over time.

Source: Spotify Q2/18 press release

For Perspectec Subscribers Only

Hardware Growth Has Become a Tailwind Samsung Partnership Could Help Close the Gap w/ Apple's Hardware Integration

Spotify CEO explains what the company's new Samsung partnership means

Deeper Bixby integration, ease of use across multiple devices, and more are on the way.

How will it work?

Speaking as part of the press event, Spotify CEO Daniel Ek stated the setup experience for new Samsung devices will now include access to the streaming service. Also, if a person owns multiple Samsung devices, they will be able to listen to a playlist on Spotify on one product, and then transfer it seamlessly to another. For example, owners of a Galaxy Note 9 can listen to a song while in the car, and then keep listening to it on their smart TV or the Galaxy Home speaker when they get home.

Source: androidauthority.com, Aug 9 2018

 Apple's higher conversion rate can be attributed in part to iPhone owners having more disposable income compared to Android owners. A second, more material contributor is Apple's ownership of iOS which distributes a seamlessly integrated music experience along with prompts to get iPhone owners to subscribe.

Source: Loup Ventures



9:07 AM - 9 Aug 2018

Hardware Growth Has Become a Tailwind Samsung Partnership Could Help Close the Gap w/ Apple's Hardware Integration

Global Smartphone Market Share

Samsung partnership provides a mobile hardware foothold

Seamless listening across Samsung devices gives comparability to Apple Music

Upside potential to invigorate MAU growth and conversion rate through prompted app installation on new devices

Quarter	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1	2018Q2
Samsung	23,2%	22,9%	22,1%	18,9%	23,5%	21,0%
Huawei	10,0%	11,0%	10,4%	10,7%	11,8%	15,9%
Apple	14,7%	11,8%	12,4%	19,6%	15,7%	12,1%
Xiaomi	4,3%	6,2%	7,5%	7,1%	8,4%	9,5%
ОРРО	7,5%	8,0%	8,1%	6,9%	7,4%	8,6%
Others	40,2%	40,1%	39,6%	36,8%	33,2%	32,9%
TOTAL	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Source: International Data Corporation (IDC), percentages represent share of unit shipments

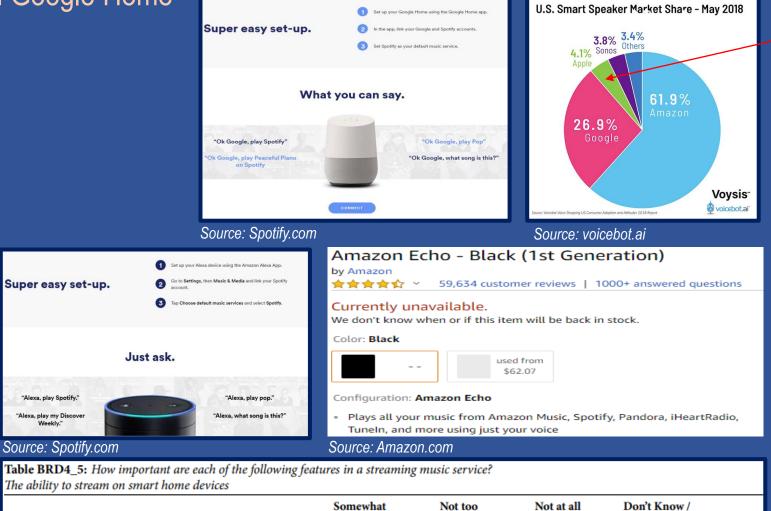
Hardware Growth Has Become a Tailwind

Unlike Apple, Spotify is on Alexa and Google Home

US #1 and #2 smart speakers by market share allow Spotify to be set as default streaming service despite having their own competing services

Amazon and Google actively advertise their hardware on Spotify as a use case, place weaker effort on their own services. Google is co-promoting with Spotify in Q4/18. Free Google Home Minis to new and existing Family Plan master account holders

Apple Music does not function on Alexa or Google Home without using Bluetooth and a phone or tablet that pairs your mobile device. Spotify can be controlled as if it were native to the device with your voice



		Somewhat	Not too	Not at all	Don't Know /	
Demographic	Very important	important	important	important	No Opinion	Total N
Adults	32% (696)	25% (548)	14% (306)	12% (263)	18% (387)	2201
						104040

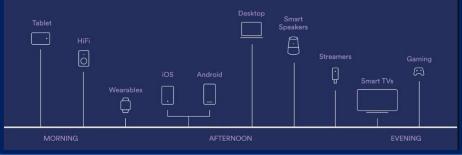
Source: Morning Consult National Tracking Poll #180314 3/10/18

Hardware Growth Has Become a Tailwind 48% of Smart-Speaker Owners Subscribe to a Music Streaming Service

- Music is the most popular use case for smart speakers, and studies suggest that people listen to more audio than they did before purchasing one of these devices. One study found that 34% of Echo and Home owners spend more than four hours a day listening to music, compared to 24% of the general population. <u>48% of these smart-speaker owners said that</u> they had a subscription to a music-streaming service.
- This poses challenges for traditional radio: one study found 39% of smart-speaker owners saving that time spent listening to the device was replacing time spent listening to AM/FM.

Source: British Phonographic Industry (BPI), Entertainment Retailers Association (ERA)

>75% Premium Subscribers Listen Across Multiple Devices



"And now there's kind of renewed interest in the home, in speakers, in getting people ... and people are going out in droves and buying these devices, which is really phenomenal. And I think once it starts permutating for real, it just adds another moment in which people will listen to even more music than they are already."

- Daniel Ek, CEO, Recode 2018

Hardware Growth Has Become a Tailwind - Spotify Dominates Home Speakers Apple's Slow Move to the Home has Hurt its Fanboys

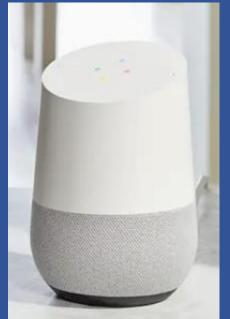
- "It wasn't because I found an issue with Apple Music, but because I bought a few Google Home Mini devices for my new apartment."
- "Spotify is only available with a black background, and that has been the No. 1 issue for me."
- "Both apps offer access to a massive music library, provide personalized, curated playlists, and allow you to do things like listen to podcasts and radio...both apps currently offer most of the music I want to listen to."
- <u>"I had to figure out what I valued more: an app I loved, or getting the full functionality out of my Google Home devices. When it came down to it, it was definitely the latter."</u>
- "Apple Music might be the better app for me, but it simply doesn't work with Google Home the way I need it to."

- Comments from an Apple Music fan



Opinion

Source: https://www.businessinsider.com/apple-music-vs-spotify-why-switch-2018-7#for-now-however-im-sticking-with-spotify-6



Source: Google

For Perspectec Subscribers Only

Hardware Growth Has Become a Tailwind Cheaper Wearables Will Improve Spotify's Acquisition and Retention



WearOS and Android are expected to eclipse Apple unit shipments by 2022, increasing market share from 30.8% to 41.5% vs. Apple's declining share from 46.5% to 38.7%. Smartwatches are attractive for outdoor/sporting uses where \$500 - \$1000 phones are impractical



Fossil deal makes Spotify the exclusive music streaming app on all Fossil smartwatches (~5% current smartwatch market share). Spotify preinstalled on all Fossil / Michael Kors Access Runway smartwatches

Source: https://www.cnet.com/news/spotify-for-wear-os-lets-you-play-music-from-your-wrist/

 Table BRD2_5: Would each of the following make you switch from one streaming service to another?

 The streaming services compatibility with other devices (like a smart home device such as Apple HomePod or Amazon Echo)

 Don't Know / No

 Demographic
 Yes
 No
 Opinion
 Total N

 Adults
 50% (483)
 30% (294)
 20% (194)
 971

Source: Morning Consult National Tracking Poll #180314 3/10/18

Spotify Fixes Its Wear OS for Google App for Smartwatches + Announces a Deal With Fossil

🖀 Ashley King 🗿 October 18, 2018

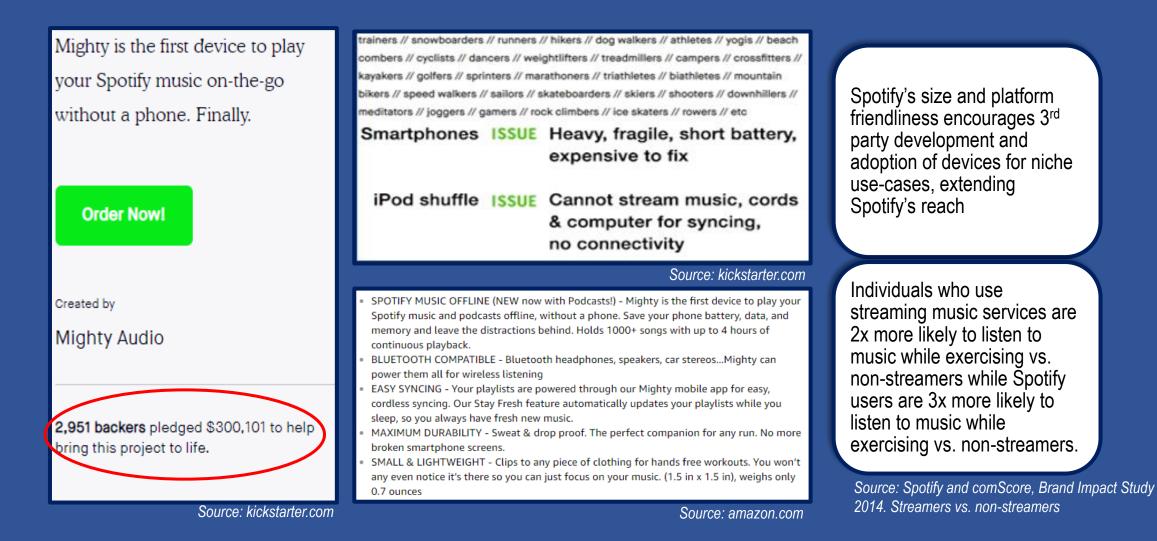
Source: digitalmusicnews.com

Worldwide Wearables Forecast, Product Shipments, Market Share and CAGR, 2018 and 2022 (shipments in millions)

Product	os	2018 Shipments*	2018 Market Share*	2022 Shipments*	2022 Market Share*	2018–2022 CAGR
Smartwatches	watchOS	20.2	16.2%	34.5	17.3%	14.3%
	Wear OS	5.4	4.3%	19.6	9.8%	38.0%
	Android	8.0	6.4%	17.4	8.7%	21.3%
	Others	9.8	7.8%	17.6	8.8%	15.7%
Smartwatch Total		43.5	34.8%	89.1	44.6%	19.6%
Wristbands		45.1	36.1%	45.9	23.0%	0.4%
Basic Watches		29.6	23.7%	39.3	19.7%	7.4%
Earwear		2.2	1.8%	12.6	6.3%	54.4%
Clothing		3.4	2.7%	11.7	5.9%	36.4%
Other		1.2	0.9%	1.2	0.6%	0.7%
Total		124.9	100.0%	199.8	100.0%	12.5%

Source: IDC Worldwide Quarterly Wearable Device Tracker, June 18, 2018

Hardware Growth Has Become a Tailwind Tremendous Organic Interest in Making Spotify Available Everywhere



Hardware Growth Has Become a Tailwind Roku Compatibility Returned Oct 31, 2018

"[We aim] to **build a bigger ecosystem** in total than their [Apple's] phone, with partner companies like Samsung, Microsoft, and the Android operating system – which is substantially bigger outside the United States than iOS... and have our success across those platforms enable us to compete. If we do that well, I think our business will prosper. If we don't? Roadkill."

- Barry McCarthy, CFO – 27th Annual Goldman Sachs Communicopia Conference

Spotify is back on the Roku platform



Daniel Gould - October 31, 2018

Spotify is back! Today, the world's most popular music streaming service makes its highly anticipated return to Roku players and Roku TVs.* Starting today, you can search for albums and playlists to listen to or browse music recommendations from Spotify directly on your Roku device

https://blog.roku.com/en-ca/spotify

Can I Directly Stream Apple Music to Roku?

No, you cannot. It's easy to stream your music files (such as MP3 or WAV files) through our free Roku Media Player channel, which enables you to play content from media servers on your local network as well as a USB drive attached to a USB-equipped Roku 3 or Roku 2XS. However, Apple Music songs are in Apple FairPlay protected M4P format, which is not supported by Roku. So you cannot stream Apple Music files to Roku just like streaming common MP3 files, let alone Apple Music files are DRM protected.

Source: medium.com

Hardware that is increasing in popularity requires Apple Music users to control devices remotely through an iOS source instead of natively through the device. At the margins, compatibility issues are a factor for 50% of U.S. users in choosing their music service

Apple will not be able to create appealing devices for all possible use cases forcing the company to leave behind some users that may otherwise prefer their service

Spotify is an Acquisition Target

- SiriusXM / Pandora a proof point for valuation
- Google / Amazon draw numerous synergies
- Google has explored a buyout at a similar valuation as ours
- Amazon's interests with hardware would be augmented by Spotify's userbase
- Founders control the company, express confidence in business

Spotify is an Acquisition Target Pandora Offer Validates our Streaming Valuation Framework

May 7th 2018

• Pandora was initiated at Perspectec with a BUY rating with a closing price of \$7.17 and a target price of \$13.00

September 24th 2018

 SiriusXM makes an all stock (1.44:1) buyout offer on Pandora, valuing the company at \$3.5B or \$10.14 per share at then prevailing prices

October 17th 2018

After removing DISH from our Digital Subscription Media peer comps due to its high debt load (6.1x Net Debt/EBITDA), Pandora's price target was updated to \$10, in-line with SIRI's original all stock offer and also in-line our (at the time) 21.7 TTM Gross Margin + 16x CLTV Added valuation framework. Pandora's price has since remained anchored to SIRI's by the nature of its all stock offer

However, we believe SIRI may end up needing to sweeten the deal if their stock does not recover to pre- buyout levels. The shrinking number of available streaming audio assets and streaming audio's importance in the media ecosystem will continue to make Spotify lucrative for players much larger than SiriusXM

(((SiriusXM)))

TO BENEFIT FROM PANDORA'S MOBILE STRENGTH, DIGITAL PRESENCE, AND AD CAPABILITIES

pandora

TO BENEFIT FROM SIRIUSXM'S SCALE, INDUSTRY EXPERTISE, AND FINANCIAL RESOURCES

DRIVING LONG-TERM VALUE



Capitalizing on cross-promotion opportunities across the largest digital audio audience in the U.S.



Leveraging SiriusXM's exclusive content and programming with Pandora's ad-supported and subscription tiers to create unique audio packages



Utilizing SiriusXM's extensive automotive relationships to drive Pandora's in-car distribution



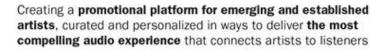
Continuing investments in content, technology, innovation and expanded monetization opportunities through both adsupported and subscription services in and out of the vehicle



0

47

Supporting and strengthening Pandora's highly relevant brand



Source: siriusxm.com

For Perspectec Subscribers Only

Spotify is an Acquisition Target Google / Amazon have Potential Synergies with Spotify

- Each had prior success leveraging separate media business (YouTube, Twitch)
- Deep pockets and willingness to spend
- Established hardware that integrates with Spotify
- Ability to bundle multiple subscription services
- Streaming delivery costs (cloud services) represent ~4% of premium COGS
- Large International base of online users
- Extensive advertising opportunity from user data and expanded advertising channels

Spotify is an Acquisition Target Google / Amazon can Easily Swallow a \$25+ Billion Price Tag

	CONSOLIDATED BALANCE SHEETS (in millions, except share amounts which are reflected in thousands, and par value per share			AMAZON.COM, INC. CONSOLIDATED BALANCE SHEETS (in millions, except per share data)			
	De	As of cember 31, 2017	Se	As of eptember 30, 2018		Dec	ember 31, 2017
			((unaudited)	ASSETS		
Assets					Current assets:		
Current assets:					Cash and cash equivalents	S	20,522
Cash and cash equivalents	\$	10,715	\$	13,443	Marketable securities		10,464
Marketable securities		91,156		92,973	Inventories		16,047
Total cash, cash equivalents, and marketable securities		101,871		106,416	Accounts receivable, net and other		13,164
Accounts receivable, net of allowance of \$674 and \$652		18,336		17,897	Total current assets		60,197
Income taxes receivable, net		369		170	Property and equipment, net Goodwill		48,866 13,350
Inventory		749		1,212	Other assets		8,897
Other current assets		2,983		4,007	Total assets	s	131.310
Total current assets		124,308		129,702	LIABILITIES AND STOCKHOLDERS' EQUITY		151,510
Non-marketable investments		7,813		12,673	Current liabilities:		
Deferred income taxes		680		682	Accounts payable	s	34.616
Property and equipment, net		42,383		55,300	Accrued expenses and other		18,170
Intangible assets, net		2,692		2,448	Unearned revenue		5,097
Goodwill		16,747		17,895	Total current liabilities		57,883
Other non-current assets		2,672		2,838	Long-term debt		24,743
Total assets	\$	197,295	\$	221,538	Other long-term liabilities		20,975
Liabilities and Stockholders' Equity			_		Commitments and contingencies (Note 3)		
Current liabilities:					Stockholders' equity:		
Accounts payable	\$	3,137	\$	3,789	Preferred stock, \$0.01 par value:		
Accrued compensation and benefits	Ψ	4,581	Ψ	5,705	Authorized shares — 500		
Accrued expenses and other current liabilities		10,177		15.936	Issued and outstanding shares — none		-
Accrued revenue share		3.975		3.878	Common stock, \$0.01 par value: Authorized shares — 5,000		
Deferred revenue		-,			Issued shares — 507 and 512		
Income taxes payable, net		1,432 881		1,752 0	Outstanding shares — 484 and 489		5
Total current liabilities				31.301	Treasury stock, at cost		(1,837)
		24,183			Additional paid-in capital		21,389
Long-term debt		3,969		3,986	Accumulated other comprehensive loss		(484)
Deferred revenue, non-current		340		317	Retained earnings		8,636
Income taxes payable, non-current		12,812		11,562	Total stockholders' equity		27,709
Deferred income taxes		430		1,318	Total liabilities and stockholders' equity	\$	131,310
Other long-term liabilities		3,059		3,214			

44.793

51,698

Alphabet Inc.

See accompanying notes to consolidated financial statements

September 30, 2018 (unaudited)

20,425 9.340

15,862 14,258 59,885

58,019 14,553

11,238

30,904 18,420 6,000 55,324 24,684

24,562

5 (1,837)

25,375 (1,034) 16,616 39,125 143,695 Google maintains the net cash to comfortably absorb an outright purchase

Raising an additional \$35B in debt (our \$185 per share target Q4/19) would only bring Amazon up to 1.2x Net Debt / EBITDA

+ 5.1B Net Cash Q3/18 - 35.0B 29.9B Net Debt 25.73B Q3/18 TTM EBITDA

29.9B/25.73B = ~1.2x

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Total liabilities

49

Spotify is an Acquisition Target Google has Explored a Buyout at a Similar Valuation to Ours

Source: Wall Street Journal, July 22 2014

Google Considers Buying Spotify

- Talks broke down for a number of reasons, including the high price Spotify was asking, as well as Google Chief Executive Larry Page's lack of enthusiasm for subscription entertainment services
- Google executive Susan Wojcicki, who took the top job at YouTube in February, was a primary advocate for buying Spotify, according to this person

Note: Sundar Pichai has been CEO of Google since 2015, when Page stepped down. Susan Wojcicki still runs YouTube today

Wojcicki also oversaw the development and release of new YouTube applications and experiences designed to cater to users interested in family^[25] gaming,^[26] and music^[27] content. She also oversaw the launch of YouTube's advertisement-free subscription service, YouTube Premium (formerly known as YouTube Red),^[28] and its over-the-top (OTT) internet television service YouTube TV.^[29]

Source: Wikipedia

Merger and Acquisition Activities (\$20 to \$30 billion)

We continue to expect substantial use of our offshore earnings for acquisitions as our global business has expanded into other product offerings like mobile devices where our competitors and business partners are no longer primarily U.S. based multinationals, thereby creating the potential for more foreign acquisitions as part of our overall growth strategy. In the past few years we have completed significant acquisitions with the individual deal size increasing in more recent years, and this trend is likely to continue in future years. In 2013, through the beginning of December, Google spent about \$1.4 billion on more than 20 strategic deals, including the \$1 billion acquisition of Waze, which was fully funded by our cumulative indefinitely reinvested non-U.S. earnings. Further, we recently pursued but discontinued a potential buyout of a foreign company, with a valuation estimated in the range of \$4 to \$5 billion. In 2012, Google spent about \$13.0 billion for various acquisitions including the acquisition of Motorola Mobility for \$12.4 billion. In addition to using offshore earnings to acquire foreign targets, our existing cost sharing arrangement requires our foreign affiliates to fund the acquisition of the foreign technology rights of our domestic targets to comply with U.S. tax law. As approximately 50% of our revenues are generated in non-U.S. markets, this will result in a significant use of foreign earnings for both domestic and foreign acquisitions.

Source: SEC Correspondence Letter, December 20, 2013

Spotify is an Acquisition Target Google has Explored a Buyout at a Similar Subscriber Valuation to Ours

2013 Spotify Revenue = \$952m (2013 EUR/USD 1.277, €746.9m) TTM Premium Revenue = \$866m 2013 Advertising Revenue = \$86m (9.0% overall in 2013 vs 10.2% overall in 2017) TTM Gross Margin = (8m*\$9.02*12*0.19) = **164.5m**

Expected customer lifetime 1.11 years (estimated 7.5% average monthly churn vs. 6.6% in 2016) Roughly $1/3^{rd}$ total gross margin added in last twelve months (6m subscribers reported in March 2013, 8m by year end) TTM CLTV Added = 1.11 x 54.1m = **60.2m**

(16 x 164.5m) + (21.3 x 60.2m) = **\$3.9** billion

Assumptions

indefinitely reinvested non-U.S. earnings. Further, we recently pursued but discontinued a potential buyout of a foreign company, with a valuation estimated in the range of \$4 to \$5 billion. In 2012, Google

• 8 million subscribers (year-end)

- Premium ARPU \$9.02 USD (Before Family/Student Plan, before major international launches in ROW and LATAM, majority of users were "single-license" 20 EU and NA markets, offset partially by larger % of trial users)
- Premium Gross Margin 19% vs. 17.5% Overall reported to press (Assumes lower premium margin observed in 2016 was due to family/student plans launched before label renegotiation which lowered royalty costs, Ad-supported still running at negative GMs by this point)

Source: https://www.theguardian.com/technology/2014/nov/25/spotify-revenues-2013-losses-streaming-music

Spotify is an Acquisition Target ...and the Google Relationship Continues to Deepen with Time

2011 – Google considers partnering with Spotify to launch its own music service

2013 – Google pursues a buyout of Spotify in the \$4-5B range. Our digital subscription media valuation framework demonstrates around a \$3.9B value on a trailing basis. Any forward-looking methodology or leadership premium would easily fit Spotify in \$4-5B

2014 – Omid Kordestani, then Chief Business Officer of Google, joins Spotify board

2016 – Spotify migrates cloud services over to Google Cloud Platform

2016 – Google offers 2 months Spotify Premium for all Chromecast users

2018 – Spotify co-promotes Google Home Mini smart speaker bundled with its Family Premium subscriptions for a limited time offer

Google talks to Spotify to power music service

The Web titan is unhappy with the terms some record labels are asking to license music for a cloud service, so it's considering whether to partner with Europe's Spotify.

BY GREG SANDOVAL | APRIL 22, 2011 7:53 AM PDT

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Rather than launch its own digital music service, Google is considering whether to partner with an existing service, including the likes of Spotify, to power Google Music.

According to a source with knowledge of the talks, Google has told the labels that it has begun discussions with Spotify in recent weeks, though no agreement is in place. <u>Spotify is</u> <u>the European streaming-music service</u> that also has ambitions of launching in the United States.



The talks with Google and Spotify have coincided with an inability by Google to reach agreements with the four top record labels on licensing a cloud music service, the source told CNET. Google had originally hoped to launch a new music service by the end of the year, and then was aiming for March, but now it's indefinite on when it might debut.

Source:

Source: https://www.recode.net/2014/7/21/11629018/googles-new-business-head-joins-spotify-board-while-another-former

Google has operated music streaming (via YouTube) and for a large portion of this timeline it has also managed its own subscription music streaming service (Google Play Music), yet **appear to be more partners then competitors.**

Spotify is an Acquisition Target Spotify's Rol and Data for Advertisers Matches Amazon's Goals for Alexa

Nielsen Catalina Solutions (NCS) measured 11 US campaigns spanning across three verticals: food, non-alcoholic beverage and personal care brands. The campaigns also spanned across platforms (mobile and desktop), across all Spotify ad solutions and across ages (primarily adults 18-44). Campaigns of varying length ran between mid-2015 and late 2016.

Ads were **25% more effective** at driving incremental sales per 1,000 impressions than NCS benchmarks across measured Consumer Packaged Goods (CPG) campaigns on Spotify

Spotify CPG campaigns streaming platforms drove **\$2.08 return** on advertising spend (ROAS) for every **\$1.00 invested**

Households that were exposed to both audio and display ads drove a 27% higher contribution to incremental sales, compared to those exposed to only one ad format

Households that were exposed to campaigns on both desktop and mobile drove a 39% higher contribution toward incremental sales, compared to those exposed on only one platform.

Source: Spotify For Brands

Amazon has big plans for Alexa ads in 2018; it's discussing options with P&G, Clorox and others

- Amazon is in talks to let companies promote their products on Alexa, sources tell CNBC.
- Ads will focus on sponsorship opportunities within skills or use data about a buyer's shopping history to suggest products.

Lauren Hirsch | Michelle Castillo

Published 11:30 AM ET Tue, 2 Jan 2018 | Updated 4:34 PM ET Tue, 2 Jan 2018

M CNBC

Source: CNBC, Jan 2 2018

Music is the #1 use case of the smart speaker and represents the lion's share of engagement with it

Spotify is an Acquisition Target Amazon's Hardware Goals are More Attainable w/ Spotify

No Stats on Amazon Music Unlimited Subscribers

Single device-restricted subscriptions (Echo Dot and Fire TV) for \$3.99. ~20% of U.S. residents are willing to pay under \$4/month for ad-free music, but lack of data points to slow uptake of Amazon Music Unlimited.

Home Speaker users Heavily rely on Music

Amazon will remain challenged to CONVERT existing streaming music users given switching issues

Spotify could help drive Amazon Speaker Sales

Spotify's 192m MAUs in 65 countries is the largest captive audience for a hardware cross-sell promotion and potential conversion to a paid subscription. Amazon Music is in well under 30 countries.

Join on your Echo

Just ^{\$}3.99/month on a single Amazon Echo device.

To start your 30-day free trial, just ask:

"Alexa, try Amazon Music Unlimited"

Join on Fire TV

Open the Amazon Music app on your Fire TV device and join on the Settings page

Start your 30-day free trial, just \$3.99/month after

Spotify is an Acquisition Target Daniel Ek's financial future is tied to SPOT's stock performance

	Ordinary S	Ordinary Shares		rtificates(7)	Percent of Total Voting	
Name	Number	Percent	Number	Percent	Power	
Daniel Ek(1)(5)(6)	49,594,360	27.1%	156,114,000	41.8%	37.0%	
Martin Lorentzon ⁽²⁾	23,612,720	13.1%	216,927,200	58.2%	43.5%	

After giving effect to the Share Split, our shareholders have authorized the issuance of up to 1,400,000,000 beneficiary certificates to shareholders of the Company without reserving to our existing shareholders a preemptive right to subscribe for the beneficiary certificates issued in the future. Pursuant to our articles of association, our beneficiary certificates may be issued at a ratio of between one and 20 beneficiary certificates per ordinary share as determined by our board of directors or its delegate at the time of issuance. We have issued ten beneficiary certificates per ordinary share held of record (excluding warrants, options, and RSUs, as applicable) to entities beneficiarly owned by our founders, Daniel Ek and Martin Lorentzon, for a total of 378,001,200 beneficiary certificates outstanding as of March 9, 2018. The beneficiary certificates carry no economic rights and are issued to provide the holders of such certificates additional voting rights. Each beneficiary certificate entitles its holder to one vote. The beneficiary certificates, subject to certain exceptions, are non-transferable and shall be automatically canceled for no consideration in the case of sale or transfer of the ordinary share to which they are linked. See "Description of Share Capital and Articles of Association."

Source: Spotify Filings, 3/31/18

CEO/Founder Daniel Ek and Founder Martin Lorentzon remain heavily invested despite share structure that allows them to retain voting control with trivial financial interest

Spotify is an Acquisition Target CEO Pay is Structured for a Big Payout vs. Collecting a Salary

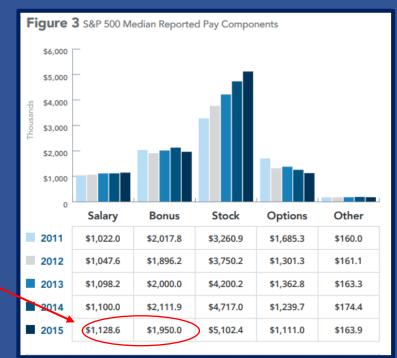
Employment Agreements

We have, or one of our subsidiaries has, entered into employment agreements with Ms. Berg and Messrs. Ek, McCarthy, Farbman, Norström, and Söderström. We currently do not have employment agreements or other service contracts with any members of our board of directors, except for Mr. Ek.

In 2011, Mr. Ek entered into a new employment agreement that replaced his prior agreement. The employment agreement provides for an indefinite term that automatically expires upon Mr. Ek's retirement at age 65. The agreement provides for a fixed monthly salary, although the board of directors determined that, commencing July 1, 2017, Mr. Ek would no longer receive an annual salary and would instead have the right to receive solely a discretionary annual bonus subject to the achievement of certain milestones. The first such annual bonus, in an amount up to \$1,000,000, became payable in the first quarter of 2018. The board of directors considered whether the Company achieved (i) more than 70,000,000 Premium Subscribers in 2017, (ii) more than 150,000,000 MAUs in 2017, and (iii) 25% in gross margin during the second half of 2017 in determining the bonus amount, but our board of directors retained the ability to pay such bonus to Mr. Ek even if such milestones were not achieved.

Daniel Ek receives \$0 in annual cash compensation and a small incentive-based cash bonus for the CEO of a company Spotify's size. Ek's total cash compensation roughly 1/3rd S&P 500 median in 2015

Summary Compensation Table Gone as of 2018 The following table sets forth information concerning the compensation of our named executive officers for the year ended December 31, 2017						
Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Option Awardz (\$)(1)	All Other Compensation (\$)	Total (\$)
Daniel Ek (CEO)	2017	440,281(2)	1,000,000(3)		95,321(4)	1,535,602
Barry McCarthy (CFO)	2017	560,000	—	4,272,107	88,465(5)	4,920,572
Gustav Söderström (Chief Research & Development Officer)	2017	390,347(2)	_	4,272,107	98,007(6)	4,760,461
Alex Norström (Chief Premium Business Officer)	2017	389,335(2)	_	3,417,692	102,457(7)	3,909,484
Seth Farbman (Chief Marketing Officer)	2017	900,000	_	1,068,419	8,100(8)	1,976,519



Source: Equilar CEO Pay Trends 2016

Named executive officers below Ek receiving more total compensation (equity inclusive). Ek's personal wealth relies on his existing shares performing

Spotify is an Acquisition Target Founders are Not Selling a Material Amount of Shares

Lorentzon and Ek's post-IPO share disposals and plans to sell are under 5% of their holdings

Lorentzon's shares were sold at an average price of ~\$180 (roughly our target price), \$40 higher than today's price.

Ek has only shown intent to sell less than \$130 million worth of stock

Founders' share ownership has gone from 44.2m to 43.6m (-1.5% decline) in the first 9 months after listing despite theoretically permanent voting control

Have the patience to sell at the right price.

A Securities and Exchange Commission (SEC) filing obtained by Di Digital reveals Ek and Lorentzon have sold their shares for over kr 1 billion (\$110 million) each in recent months. Daniel Ek, Spotify's CEO, received the most from the recent sales, reportedly earning kr 1.2 billion (\$132 million).

For the period of July to September 2018, Ek sold 336,213 shares for kr 560 million (\$61.6 million). Di Digital states he plans to sell more shares for kr 600 million (\$66.1 million).

Lorentzon, meanwhile, sold 317,800 shares between July and September for kr 530 million (\$58.3 million). He also stated his intention to sell more shares for kr 288 million (\$31.7 million).

Speaking with the Swedish publication, Sofie Grant, a Spotify representative, confirmed the sale.

"Daniel will sell a small share of [company] shares in the next nine months as part of his long-term financial strategy. This sale of shares will constitute a minimal part of his holding in the company."

Source: Variety, Oct 4 2018

Spotify is an Acquisition Target

Potential M&A is Realistic - We believe that if Spotify shares do not appreciate in-line with our valuation framework, the likelihood of a buyout offer from Google or Amazon increases

Established Valuations Have Been Established - Established Players The Pandora buyout and Google's past exploration into Spotify support a potential offer consistent with our target price at minimum. In a year's time we see the stock price as being under priced

Founders Focused on Share Appreciation vs. Salary - Daniel Ek and Martin Lorentzon can conduct a sale without other shareholders' approval. Daniel Ek relies on SPOT stock performance to manage his own wealth. His compensation package is well below the median for a company of Spotify's size. Ek and Lorentzon (friends of over a decade) can jointly make Ek's compensation whatever they like but don't. Ek knows he is sitting on a good piece of business.

Our Forecast Implies a Higher Share Price by Q4/19

	Revenue (€M)	Ad-Supported (€M)	Premium (€M)	Total Headcount (end of period)	Gross Profit (%)	Operating Income (€M)	Adjusted EBITDA (€M)	CLTV Added TTM (€M)	Fully Diluted Adjusted EPS (€M)
Q4/18 Estimate	1,503	173	1,330	4,130	25.2%	-23.7	-11.7	157.6	-\$0.01
Q4/18 Prior Estimate	1,503	173	1,330	4,249	25.7%	-60.6	-47.6	165.0	-\$0.57
Prior Quarter (Q3/18)	1,352	142	1,210	4,040	25.3%	-5.9	0.7	180.2	\$0.34
Perspectec est. Q/Q change	11.2%	22.0%	9.9%	N/A	-10 bps	300.8%	-1803.0%	-12.6%	N/A
Prior Year (Q4/17)	1,149	130	1,019	N/A	24.5%	-87.0	-74.0	171.6	-\$3.87
Perspectec est. Y/Y change	30.8%	33.3%	30.5%	N/A	68 bps	-72.8%	-84.2%	-8.1%	N/A
Q4/18 Perspectec Prior Estimate	1,267	131	1,136	4	24.6%	-116.2	-65.7	122	-\$0.57
Perspectec change in estimate	18.7%	32.1%	17.1%	N/A	61 bps	-79.6%	-82.2%	N/A	N/A
Q4/18 Consensus	1,522	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Perspectec est. vs. consensus	-1.2%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Q4/18 Guidance	1,350 - 1,550	N/A	N/A	N/A	24% to 26%	-10M to -90M	N/A	N/A	N/A
Q4/18 Mid-point Guidance	1,450	N/A	N/A	N/A	25.0%	-67.5	N/A	N/A	N/A
Perspectec est. vs. guidance	3.7%	N/A	N/A	N/A	22 bps	-64.9%	N/A	N/A	N/A
2018 Perspectec Estimate	5,267	540	4,727	4,130	25.3%	-160.6	-87.5	157.6	-\$3.52
2018 Prior Estimate	5,280	536	4,744	4,516	25.5%	-263.6	-184.1	174.9	-\$2.16
Perspectec Est. Y/Y Change	28.8%	29.9%	28.7%	N/A	-9 bps	-57.5%	-72.0%	-8.1%	N/A
2017 Results	4,090	416	3,674	3600*	20.8%	-378.0	-313.0	171.6	-\$3.75
Perspectec Est. Y/Y Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2018 Consensus	5,240	N/A	N/A	N/A	N/A	N/A	-222.5	N/A	N/A
Perspectec Est. vs. Consensus	0.5%	N/A	N/A	N/A	N/A	N/A	0.52%	N/A	N/A
2018 Guidance	5,000 - 5,400	N/A	N/A	N/A	23% to 25%	-230M to -330M	N/A	N/A	N/A
2018 Mid-point Guidance	5,200	N/A	N/A	N/A	24.0%	-280.0	N/A	N/A	N/A
Perspectec est. vs. guidance	1.3%	N/A	N/A	N/A	132 bps	-42.6%	N/A	N/A	N/A
2019 Perspectec Estimate	6,678	743	5,935	4,740	26.0%	-211.1	-172.6	208.9	-\$0.50
Perspectec Est. Y/Y Change	26.8%	37.6%	25.5%	14.8%	-73 bps	31.4%	97.1%	32.5%	-85.8%
2019 Prior Estimate	6,640	731	5,886	5,501	26.0%	-251.0	-213.0	181.1	(\$0.82)
Perspectec Change in Estimate	0.6%	1.7%	0.8%	N/A	0 bps	N/A	N/A	-13.0%	N/A

Source: Perspectec

For Perspectec Subscribers Only

Our FY19 revenue forecast does not rely on a contribution from **any** 2019 launches. A Russia, India, or South Korea launch would represent material upside

Any acceleration of existing retention trends has large gross margin implications. If Spotify could keep the 76% of U.S. MAUs we estimate are not long-term ad-supported users subscribed, this would add \$16 billion (\$89 per share) to our predictive dilutive market capitalization under this valuation framework (\$1000m x 16 / 188m) on its own

The \$2.6B non-recording and advance portion of the artists and repertoire budget of the big 3 labels leaves a gross margin opportunity that is at least as sizable but may or may not be recurring in nature

Our Forecast Implies A Higher Share Price by Q4/19 A Comparable Subscriber Valuation Implies SPOT is Fairly Valued

We value Spotify's Digital Subscription Media Peers on both a12-month gross margin and 12-month customer lifetime value added basis. We use the guidance quarter and trailing 9-month data.

21.3x (\$178 million) Spotify's CLTV added plus 16x (\$1,410 million) Spotify's premium gross margin would give us a predictive dilutive market capitalization of \$26.3 billion or **\$140 per share,** an in-line valuation on a *trailing* basis.

We do not believe this appropriately captures the forward 12-month opportunity based on our insights into Spotify's customers which have behaved in a very predictable manner to date.

Other subscription businesses do not enable the same bottoms-up approach due to data availability

Digital Subscription Media Comps

Significant revenue comes from monthly subscribers - Friday November 2, 2018

	Recommendation	Perspectec Coverage	Ticker	Price (US)	Target Price	TTM Gross Margin	CLTV Added
Spotify	HOLD	Focused	SPOT	\$139.88	\$140	\$1,410	\$178
Netflix	HOLD	Focused	NFLX	\$316.36	\$317	\$5,627	\$2,478
SiriusXM	HOLD	General	SIRI	\$ 6.10	\$6	\$1,810	(\$50)
Pandora	HOLD	Focused	Р	\$8.68	\$8	\$110	\$12

Source: Perspectec

TTM Gross Margin + CLTV Added is the Best Way to Value Digital Subscription Media Companies Customer Lifetime Value (CLTV) = Gross Margin of Subscriptions / Annualized Churn Rate CLTV Added = Increase in Gross Margin of Subscriptions * (1 /

Annualized Churn Rate)

TTM Gross Margin includes only recurring subscription revenue, advertising only 6.7% of total SPOT gross margin. Not material yet

Our Forecast Implies A Higher Share Price by Q4/19 However Given the Business Visibility, Investors Should Look One-Year Forward

Q4/19E TTM Subscriber Valuation Metrics

If held until Q4/19 results, we expect \$1,807M in Premium TTM Gross Margin and \$240M in CLTV added results in an implied value of \$185 per share

\$1,807M (Premium TTM Gross Margin) x 16 + 240M (CLTV Added) x 21.3 = \$34.1B EV

Net Cash of \$3.9 billion includes a \$1.8 billion investment in TME that is restricted until December of 2020.

\$38B Market Cap / 205.5M dilutes shares by Q4/19 = Target of **\$185** per share

- Our visibility into Q4/19 subscribers (via stream growth), churn (via consumer surveys and polling data) and ARPU based on our analysis of local pricing and disclosed trial cost trends, we remain reasonably confident in our expectations for Q4/19 TTM Gross Margin and CLTV Added
- Average analyst price target was \$191 as of Nov 5, 2018. We believe analysts are focusing on factors that remain ambiguous (two-sided marketplace) and not material to today's subscription story

Converted @ EUR/USD of 1.14

Valuations are based on relative Media Comparable metrics

For Perspectec Subscribers Only

Perspectec Disclosures -SPOT

Spotify Technology S.A. (SPOT-NYSE)

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