Goldman Sachs | Equity Research

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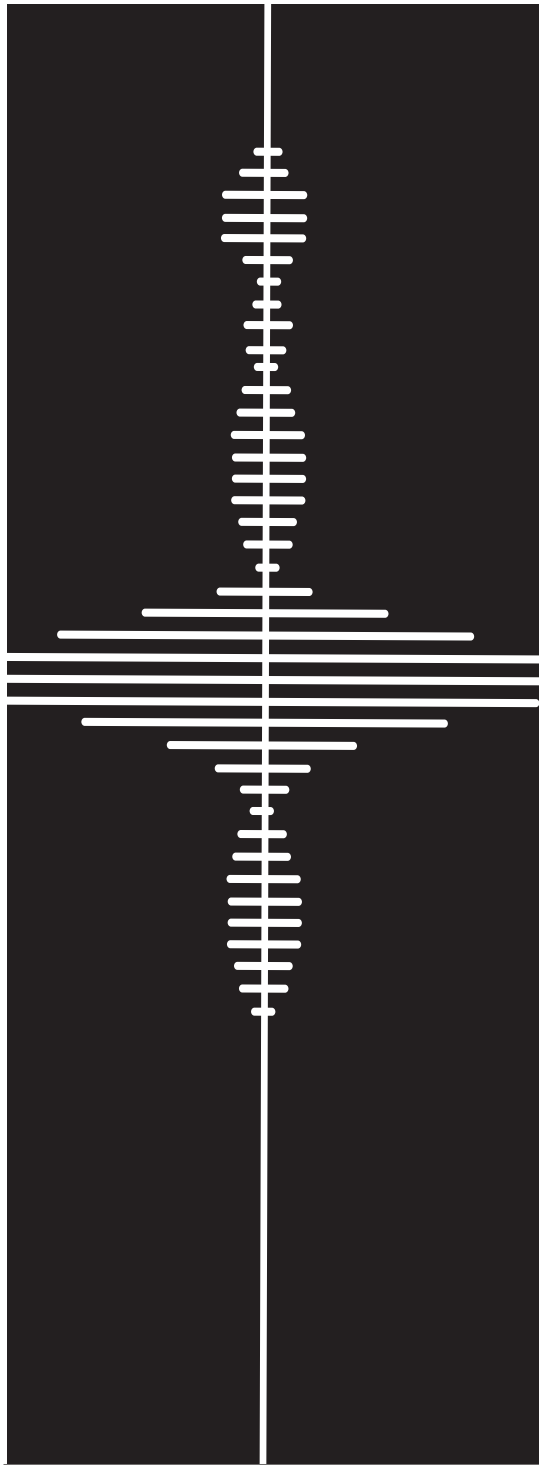
The following is a redacted version of the original report. *See inside for details.*



The show must go on

Global music revenue will drop by 25% in 2020 on our estimates, largely due to the widespread disruption to live events.
In the longer term we expect the current crisis will accelerate the shift from offline to online music and the race to owning the artist-fan relationship, while increasing the relevance of social media for music discovery and promotion. We expect a strong rebound in 2021 and forecast music industry revenue to grow at c.6% CAGR 2019-2030 to reach US$142 bn by 2030, a near doubling in value.

What you will find in this report:

- Detailed analysis of COVID-19 impact across the value chain
- Global music market forecasts (Streaming, Recorded, Publishing, Live) 2020-30
- Deep dive on structural shifts and growth drivers, including opportunities from short-form videos and live streaming
- Competitive analysis and market share forecasts
- Margin mix analysis for record labels
- Overview of main royalty streams and regulatory changes

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The following is a redacted version of Goldman Sachs Research's report "Music in the Air: The show must go on" originally published May. 14, 2020 (80pgs). All company references in this note are for illustrative purposes only and should not be interpreted as investment recommendations.

Music in the Air in numbers

COVID-19 impact in 2020E

-25% decline in global music industry revenue

-75% drop in live music revenue

+18% streaming revenue to remain resilient

40% of music listening happens in car and at work

Streaming opportunity

1.2bn paid subscribers in 2030E vs. 341mn in 2019

67% share of subs from EM by 2030E vs. 38% in 2019

>80% of 16-24 year olds listen to audio streaming in the US vs. population average 65%

79 number of markets where Spotify operates vs. Netflix 194

653mn Tencent Music MAUs vs. 40mn paid subscribers in 2019

Upside from regulation

$16.6bn US radio market (in 2019) vs. Ad supported streaming $1.2bn

47% Youtube share of streams vs. 6% Youtube contribution to recorded music revenue (in 2018)

$0 what terrestrial radio pays to artists and labels in the US

Record labels to retain lion's share

52-58% share of content royalty pool for record labels

86% streaming's share of revenue in 2030E (56% in 2019)

Live music to recover

79% of fans expect to return to live events within 4 months of COVID-19 restrictions lifting

52% of consumers' spend on music goes towards live tickets (in 2016)

c.50% of top 100 artists' income comes from performing live (during touring years)

74% of concert fans said they would continue to watch livestreaming events even after physical events resume

Source: Company data, IFPI, Nielsen, Bands InTown, Ticketmaster, Goldman Sachs Global Investment Research

Executive Summary: Streaming keeping up the beat as Live hits pause

Cutting 2020 global music industry estimates by c.30% on COVID-19 impact: We lower our global music industry forecasts for 2020 by c.30% to reflect the significant disruptions relating to COVID-19 and the weaker economic outlook. We expect **streaming growth will remain robust at +18% yoy** as it benefits from the secular shift from offline to online music, but **live music will be severely impacted** by cancellations/postponements of events, leading to a **75% drop in revenue** in 2020. For **recorded music**, we forecast c.**3% growth in 2020**, marking the first year of meaningful slowdown since the market returned to growth in 2015, as we expect the growth in streaming will be offset by weaker physical and licensing revenue. We expect **music publishing** will be slightly more resilient given its diversified revenue streams and lag in revenue recognition, leading to **3.5% growth in both 2020/2021.**

Structural shifts to accelerate; music industry to nearly double in value by 2030E: We expect the current crisis will contribute to **(i)** accelerate the **shift from offline to online music**, which ultimately benefits the industry given the recurring nature and higher ARPU of paid streaming; **(ii)** increase reliance on **social media and streaming for music discovery and promotion**; and **(iii)** increase **D2C efforts in merchandising and live streaming.** While user time spent may shift away from music streaming to other forms of entertainment in the short term, overall we believe the industry's long-term growth outlook is intact, driven by the secular growth of paid streaming, growing demand for music content and live events, new licensing opportunities (e.g. TikTok) and positive regulatory developments. We expect a **strong rebound from 2021 and forecast c.6% revenue CAGR 2019-2030** to reach US$142 bn by 2030, an 84% increase vs. 2019 level of US$77 bn.

The streaming wars: growing competition to capture 1.2bn paid user opportunity: **We raise our global paid subs estimates by 6% to 1.22bn in 2030** on the back of faster-than-expected paid streaming adoption, proliferation of new services and expansion into new markets. This implies paid subs penetration of 21% in 2030E from 8% in 2019, with 42% in DM and 17% in EM. Offsetting this, we **lower our 2030 ARPU forecast by 9%** to US$44 reflecting greater dilution from EM, family plans and bundles. Overall **we forecast the streaming market to grow at a 12% CAGR 2019-30** to reach US$75 bn by 2030. While the digital service providers (DSP) are the direct beneficiaries of this trend, we also expect **competition to intensify** from new players such as Amazon Music and **ByteDance's Resso**. We expect **Spotify to retain its leadership** with 33% share of subs in 2030 (36% in 2019) while we forecast **Apple Music falls to 4th place** with 14% share in 2030 (19% in 2019), **behind Tencent Music** at 20% and **Amazon Music** at 15%**.**

Record labels retaining the lion's share of the pie: We believe record labels will be the largest beneficiaries of the growth of music streaming given they receive **52%-58% royalty rates** from the major DSPs — we expect **no major change to these rates** in the near term given the competitive dynamics amongst the DSPs. We expect streaming share to rise to 86% of recorded music revenue in 2030 from 56% in 2019, driving a **7%**

CAGR for the recorded music market over 2019-30. We believe music publishers will post resilient growth at a 6% CAGR over 2019-30 as paid streaming fuels growth in digital royalties and the growing usage of music content drives higher performance royalties. Over time, we see further upside for the recorded and publishing industry from **positive regulatory developments**, which we currently do not incorporate in our forecasts.

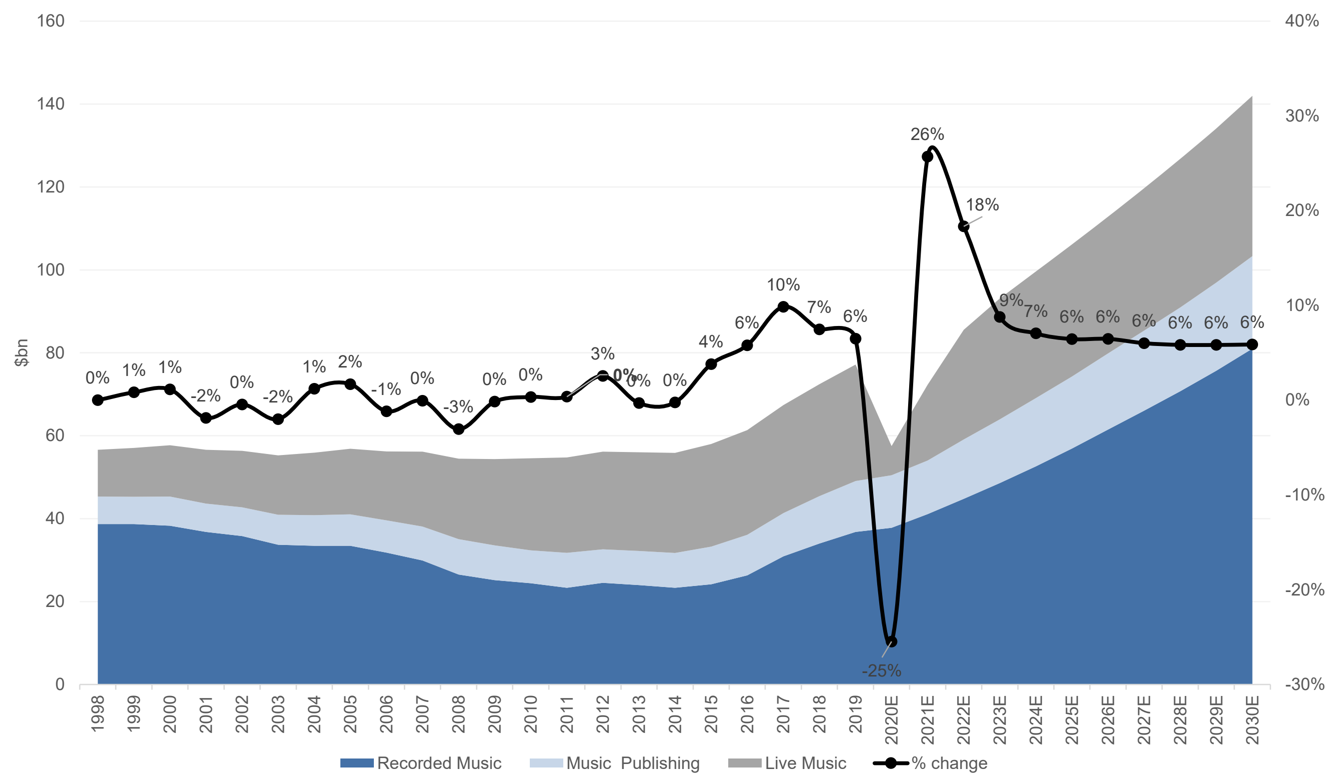
Live music on the starting blocks: While we believe fans will be eager to get back to live events, concerts and festivals once the situation normalises, the **timing and speed of the recovery will largely depend on the regulations** around social distancing and large public gatherings around the world. Mid to long term, we forecast a **return to 4-5% annual growth rates** to reach US$39 bn by 2030 (US$28 bn in 2019) as live events benefit from a number of demand and supply side tailwinds such as the "**millennial experience economy**" driving greater demand for live events, **new monetisation opportunities through live streaming**, ticket sales, merchandise and sponsorship, and **artists' greater dependence on touring income**.

Global music forecasts: A drop in 2020, long-term growth outlook intact

While we would expect the music industry to fare relatively well in a recession given the secular growth of streaming and live music and the resilience of music publishing, the unprecedented social distancing measures and bans on large public gatherings resulting in live events cancellations/ postponements and store closures will have a material adverse impact on the industry in the short term. We lower our global industry forecasts for 2020 by 29% to US$57.5 bn to reflect the significant impact of COVID-19, particularly on the live music segment. Within this, we lower our recorded music market forecast by 8% to US$20.8 bn, publishing market forecast by 5% to US$6.0 bn and live music forecast by 76% to US$7.0 bn. We now expect global music industry revenues to fall by 25% yoy in 2020, mainly driven by a 75% yoy decline in live, while we forecast recorded music and music publishing to post moderate growth rates of +3% and +3.5%, respectively. We expect a strong rebound in outer years (+26% in 2021, +18% in 2022) with the live music industry nearly returning to its pre-COVID-19 level by 2022. Our 2023 global music forecasts are now 6% below our prior estimates; however our 2030 forecast increases slightly to US$142 bn. This implies a 6% revenue CAGR 2019-30, with CAGRs of 7% for recorded music, 6% for publishing and 3% for live.

Exhibit 1: We expect the global music market to decline 25% in 2020 due to the impact of COVID-19, followed by a strong rebound in 2021/2022; our long-term growth forecasts are however broadly unchanged at +6% CAGR 2019-2030

Global Music market breakdown ($bn, LHS), % growth (RHS)



Source: IFPI Global Music Report 2020, Music & Copyright, OMDIA, PWC, Company data, Goldman Sachs Global Investment Research

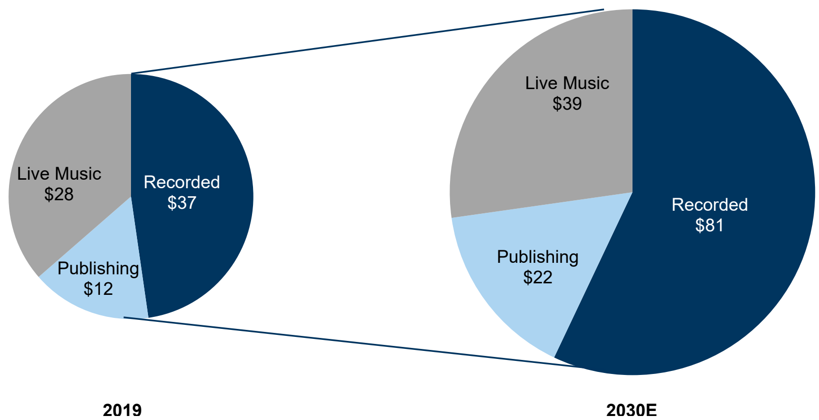
Exhibit 2: We lower our recorded/ publishing/ live forecasts by 8% / 5%/ 76%, respectively, in 2020, while 2030 estimates increase slightly

	2019		2020E		2023E		2030E		% change			
	New	Old	New	Old	New	Old	New	Old	2019	2020E	2023E	2030E
Global Music Market ($bn)**	**$77.2**	**$76.2**	**$57.5**	**$81.4**	**$93.1**	**$99.2**	**$142.0**	**$140.3**	**1%**	**-29%**	**-6%**	**1%**
Recorded Music Market ($bn)*	$20.2	$20.9	$20.8	$22.6	$26.7	$29.9	$44.6	$44.8	-3%	-8%	-11%	0%
Music Publishing Market ($bn)*	$5.8	$5.8	$6.0	$6.3	$7.3	$7.8	$10.7	$10.8	-1%	-5%	-7%	-1%
Live Music Market ($bn)**	$28.1	$27.9	$7.0	$28.8	$29.1	$31.4	$38.7	$38.7	1%	-76%	-7%	0%
Streaming												
Streaming Market ($bn)**	$21.6	$21.8	$25.4	$26.6	$39.3	$43.2	$75	$74	-1%	-5%	-9%	2%
Paid Streaming Market ($bn)**	$15.5	$16.8	$18.3	$20.5	$28.1	$33.0	$51.9	$53.9	-8%	-11%	-15%	-4%
Ad funded Streaming Market ($bn)**	$6.1	$5.0	$7.0	$6.1	$11.3	$10.2	$23.3	$19.7	22%	15%	11%	18%
Paid Subscribers (mn)	341	328	416	397	671	589	1,220	1,148	4%	5%	14%	6%
Developed Market (mn)	212	228	246	264	321	337	403	370	-7%	-7%	-5%	9%
Emerging Market (mn)	129	100	170	134	350	273	817	778	29%	27%	28%	5%
Annual ARPU ($)	$51.9	$57.5	$46.0	$56.6	$44.2	$51.6	$44.0	$48.2	-10%	-19%	-14%	-9%

* Recorded Music and Music Publishing market sizes in this table are net revenues, i.e. they represent revenues going to labels ** Live Music market size represents total revenues from ticket sales and sponsorship; Streaming revenues are gross numbers

Source: IFPI Global Music Report 2020, PWC, Goldman Sachs Global Investment Research

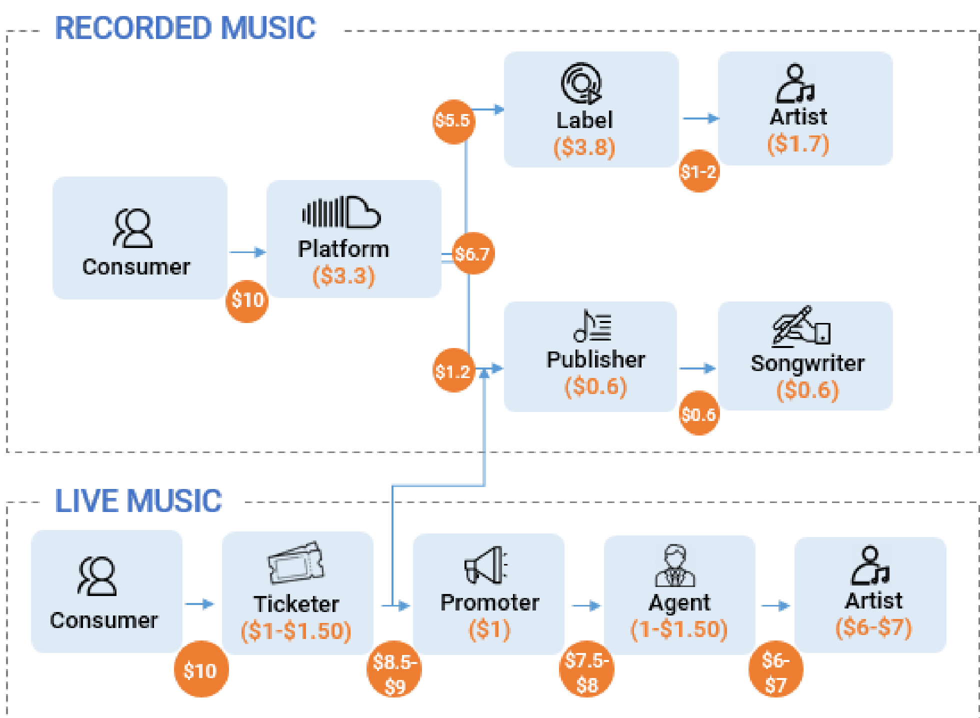
Exhibit 3: We expect Recorded Music to grow the most over 2019-2030E driven by streaming
Global Music market breakdown, 2019 vs. 2030E (US$ bn)



Recorded Music, Publishing and Live Music market sizes above are gross numbers

Source: Goldman Sachs Global Investment Research

Exhibit 4: Record labels are the largest beneficiaries of the growth of streaming, while artists command most of the economics in touring
Illustrative Recorded and Live Music value chain



Source: Goldman Sachs Global Investment Research

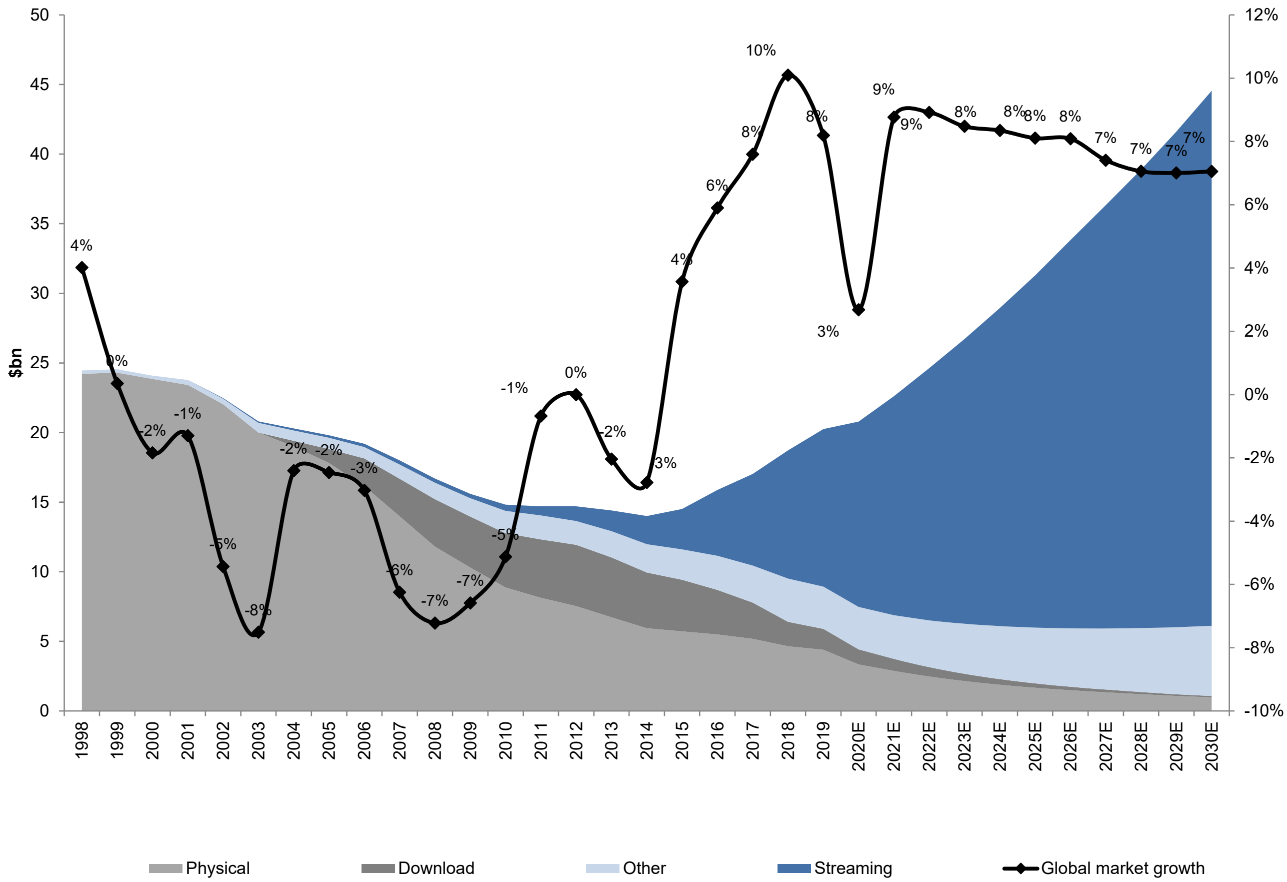
Recorded Music: streaming is the beating heart

We lower our recorded music forecasts by 8% to US$20.8 bn for 2020 and now expect the market to grow c.3% yoy in 2020 following +8% in 2019 and +10% in 2018. This marks the first year of significant slowdown since the industry returned to growth in 2015.

- We expect streaming revenue, which accounted for 56% of the recorded music market in 2019, will continue to grow at a healthy rate of +18% in 2020 (vs. +21% prior and +23% in 2019). We expect paid streaming growth to remain resilient at +19% (vs. +20% prior and +25% in 2019) while ad-funded streaming will likely be more impacted by the weaker advertising demand (GSe +15% vs. +21% prior and +18% in 2019).
- We expect physical sales to suffer from temporary store closures and postponement of new releases, with a decline of -24% yoy for the year (-17% prior) following -5% in 2019.
- We believe performance revenues will be affected by a significant decline in royalties from public use (concerts, bars, restaurants, gyms), while royalties from digital services should continue to grow strongly and broadcast should remain resilient. However, the impact on revenue will likely be more noticeable from 4Q2020 given the timing of revenue collection and recognition, which gives 2% growth in 2020 and 2021 on our forecasts.
- We forecast sync revenues to decline 8% yoy in 2020 due to weaker advertising demand and near-term disruptions in TV/ film production.

We believe the fundamental outlook for the industry remains strong, driven by the secular growth of paid streaming, new licensing opportunities (e.g. TikTok) and regulatory tailwinds. Most notably, we see the recorded segment as the largest beneficiary of the growth of streaming (compared to publishing and live) given it commands 52%-58% share of the content revenue pool. As such, we forecast an acceleration to +9% revenue growth in both 2021/22 with 7% revenue CAGR 2019-30 to reach US$44.6 bn (US$44.8 bn prior) by 2030. For more details on the growth drivers of the recorded music segment see Recorded Music: streaming the beating heart.

Exhibit 5: We forecast the global recorded music market to grow 3% in 2020 and in the high single digits over 2021-30 led by streaming
Global Recorded Music market revenues ($bn, LHS), % growth (RHS)

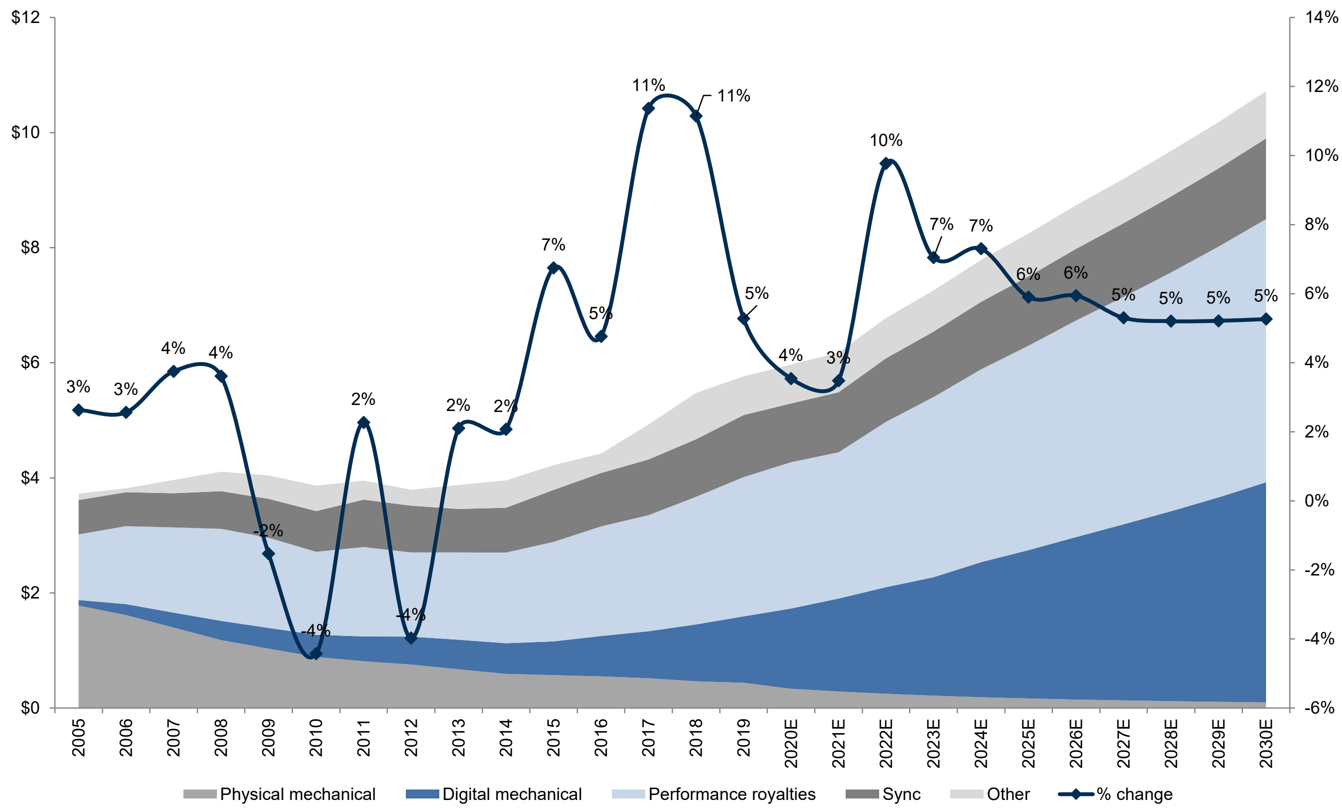


Source: IFPI Global Music Report 2020, Goldman Sachs Global Investment Research

Music Publishing: diversification & resilience

We forecast music publishing growth to decelerate to 3.5% in both 2020/21 (vs. +8% pa prior) following +5% in 2019. We believe the segment will be less impacted by COVID-19 given the more limited exposure to physical sales (physical mechanical royalties accounted for 8% of publishing revenue in 2019 on our estimate) and the timing of performance royalty collection and payment (6-12 months). Overall, we believe the industry fundamentals remain solid and forecast 6% CAGR 2019-30, reaching US$10.7 bn in 2030, driven by the secular growth of streaming royalties, growing use of music in films/ TV shows/ video games/ live events, emerging licensing opportunities from new platforms such as TikTok and regulatory changes driving better remuneration for songwriters/ publishers (MMA, CRB, etc). For more details see Music Publishing: diversification drives steady growth.

Exhibit 6: We forecast the global publishing market to grow c.3.5% in both 2020/21 and in the mid single digits over 2022-30
Global Music Publishing market revenues ($bn) and % growth



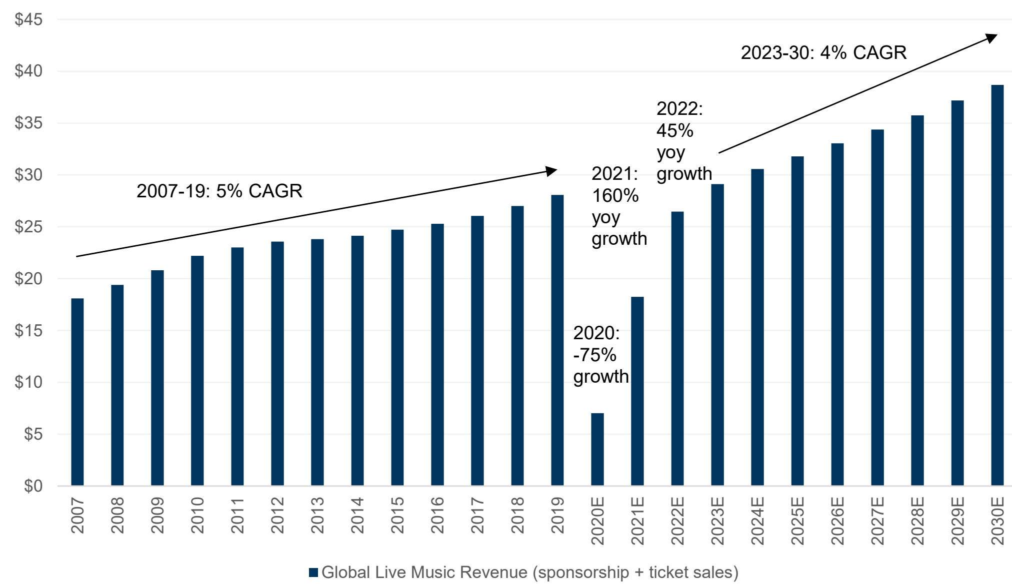
Source: Music & Copyright, OMDIA, Company data, Goldman Sachs Global Investment Research

Live Music: 2020 a lost year

Live music, having been the most resilient segment of the music industry in the past two decades, is by far the most severely impacted by the restrictions related COVID-19 which have led to widespread concert postponements and cancellations. We forecast a 75% decline in live music revenues for 2020, assuming no revenue will be generated in 2Q and 3Q which are seasonally the strongest quarters of the year (c.70% of revenue). We expect to see a partial recovery in 4Q (-50% yoy), followed by a strong rebound in 2021, with the industry nearly returning to its pre-COVID-19 level by 2022. From 2023 onward, we forecast the industry to show healthy growth of 4-5% per year driven by the secular supply and demand tailwinds of touring becoming increasingly important to artists' income and the Gen Z/ Millennial "experience economy" fueling steady attendance growth in a wide array of live music events.

Exhibit 7: We expect the global live music industry to decline 75% in 2020 due to the impact of COVID-19 before recovering to 160%/45% growth in 2021/22

Global Live Music market ($bn) and % growth



Source: PWC, Goldman Sachs Global Investment Research

Data from the IFPI Global Music Report 2020 was used to create material in this report. All statements using IFPI data represent Goldman Sachs' interpretation of data, research opinion or viewpoints published as part of the IFPI Global Music Report 2020, and have not been reviewed by IFPI. Each IFPI publication speaks as of its original publication date (and not as of the date of this report.

Streaming: On track to reach 1.2bn paid users by 2030E

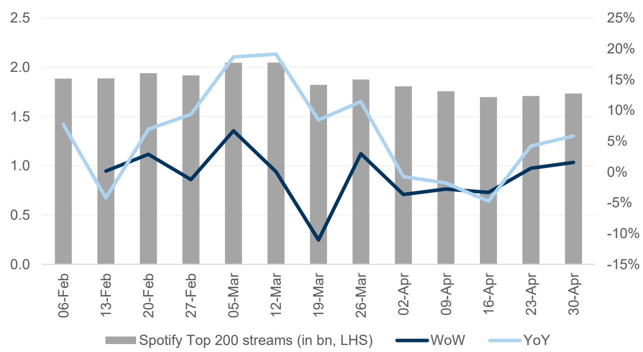
We expect streaming to be the most resilient part of the music industry amid COVID-19 with c.75% of revenue derived from subscriptions and ad-funded video benefiting from a surge in consumption. Over time, we expect the industry to benefit from growing paid streaming penetration in both DM and EM, proliferation of new services, expansion into new markets and improved pricing as well as consumer and technological tailwinds. We raise our global paid subs estimates by 6% to 1.22bn in 2030, implying paid subs penetration of 21% in 2030 from 8% in 2019, but lower our 2030 annual ARPU forecast by 9% to US$44 reflecting greater dilution from EM, family plans and bundles. Overall, we forecast the streaming market to grow at a 12% CAGR 2019-30 to reach US$75 bn by 2030. While the DSPs are the direct beneficiaries of this trend, we also expect competition to intensify from new players such as Amazon Music and ByteDance's Resso.

COVID-19 has impacted consumption patterns

Recent datapoints suggest an initial dip in consumption, especially in the regions most hit by the COVID-19 outbreak, with a recovery since April.

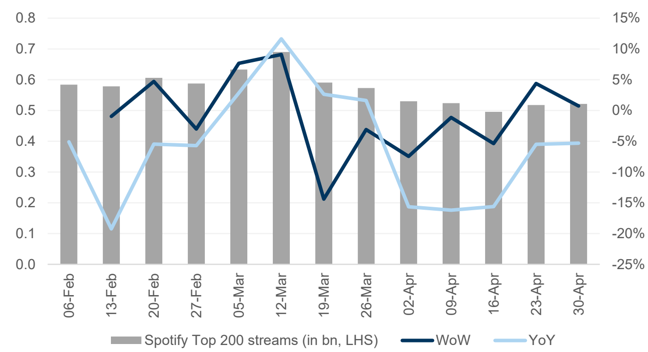
- Our analysis of the number of streams of Spotify's Global Top 200 showed 11% wow decline in the week of March 12-19, but this has since recovered with a 3% decline in the first half of April on average and a return to growth at +1% in the second half of April.
- Similarly in the US, the largest streaming market globally, the number of streams of Spotify's Top 200 charts fell 14.4% wow in the week of March 12-19 but has since recovered with a 3% decline in the first half of April on average and a return to growth at +3% in the second half of April. Meanwhile, Nielsen MRC data highlights that total audio streams grew 1.5% week-on-week to 15.03 bn for the week ending April 2 and 1.7% to 15.3 bn for the week ending April 9 following an initial dip in March (Billboard, April 22, 2020).

Exhibit 8: Spotify's Global Top 200 chart has returned to growth since April 16 (+1% wow) following 11% wow decline in the week of March 12-19
Global # of streams (bn) - Spotify Top 200



Source: Company data, data compiled by Goldman Sachs Global Investment Research

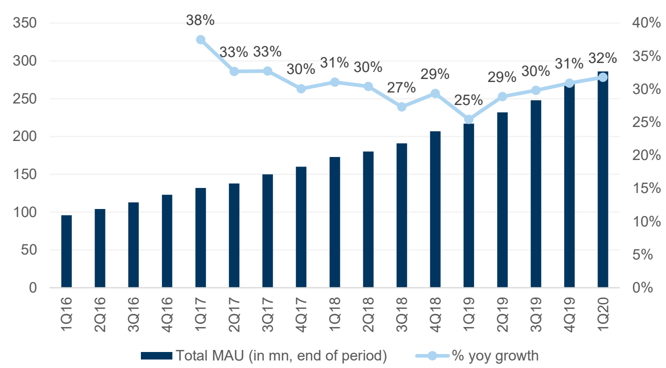
Exhibit 9: In the US, Spotify's Top 200 chart has also returned to growth (+3% wow since April 16) following a 14% wow decline in the week of March 12-19
US # of streams (bn) - Spotify Top 200



Source: Company data, data compiled by Goldman Sachs Global Investment Research

- Spotify noted at its 1Q results that following a notable decline in Daily Active Users and consumption starting late February, especially in the hardest hit markets like Italy and Spain, it has since seen a substantial recovery in many markets in lockdown. More encouragingly, despite the consumption changes, engagement remained strong with the ratio of Daily Active Users to Monthly Active Users in 1Q20 even higher than 1Q19 while MAUs also grew faster than in 1Q19.

Exhibit 10: Spotify's MAU growth in 1Q20 was faster than in 1Q19 and 4Q19 despite the impact of COVID-19 from late February
Spotify Monthly Active Users (in mn, LHS), % yoy growth (RHS)

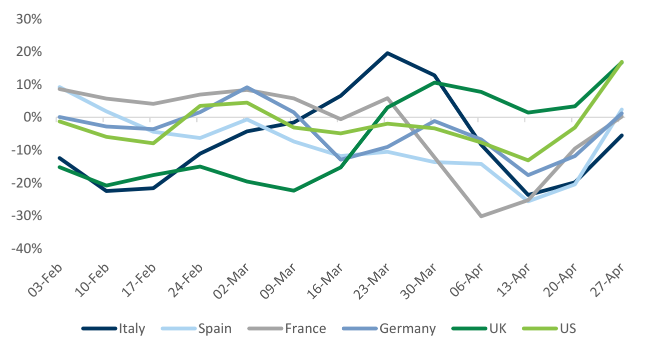


Source: Company data

- The Spotify app download data showed mixed trends at the beginning of the outbreak in Europe/ the US, with countries like Italy and the UK seeing a spike in downloads in the second half of March while France, Spain, the US and Germany saw a deterioration, according to Sensor Tower data. However, more recently the trajectory has improved for all these markets.

Exhibit 11: Following mixed trends at the beginning of the outbreak in Europe/ US, Spotify app downloads in major markets are now showing a positive trajectory

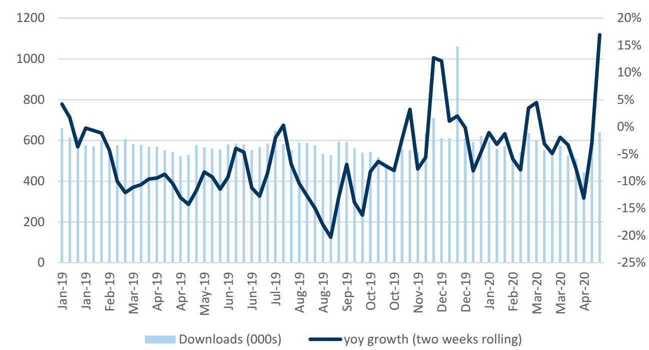
Spotify app downloads (global) – yoy change (two weeks rolling total)



Source: Sensor Tower

Exhibit 12: Following some weakness in late March and early April, Spotify's app downloads in the US have ticked decidedly positive

Spotify app downloads (US)

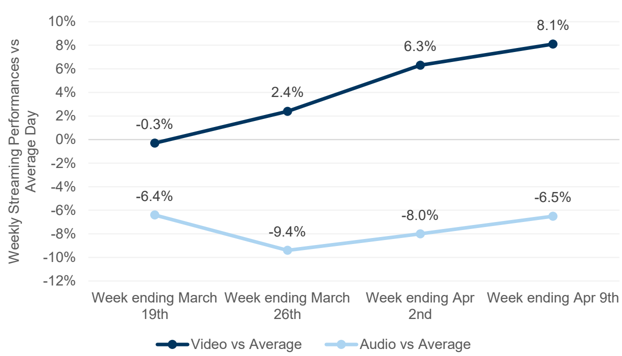


Source: Sensor Tower

- Data suggests that **consumers may have shifted toward music video streaming** through services such as YouTube during lockdown. According to Nielsen MRC, music video streaming in the US increased 8.1% in the week ending April 9 compared to average consumption in the 8 weeks prior to March 19, while audio streaming was down 6.5% vs the pre-COVID average in the same week. In China, during 1Q20, based on the top 100 mobile apps, more interactive online entertainment forms gained user engagement while total time spent on online music apps declined qoq, although social apps in the music vertical such as online karaoke remained relatively robust (especially in February).

Exhibit 13: Music video streaming in the US has more recently increased compared to prior 8-week average from the start of lockdowns while audio streaming has declined

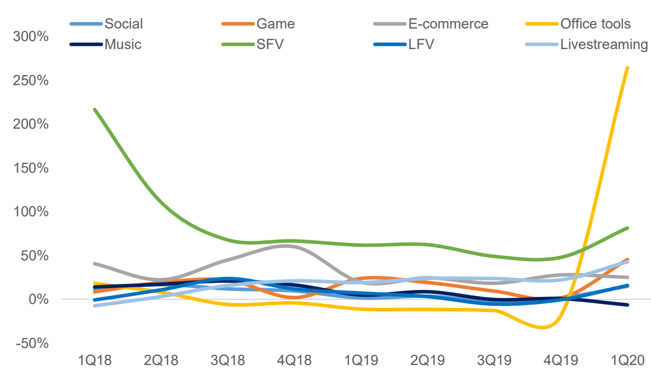
US weekly streaming consumption vs. pre-COVID-19 pandemic baseline average volume (8-week baseline of weekly volume from 1/17 – 3/5)



Source: Nielsen MRC

Exhibit 14: User time spent on music in China declined in 1Q20 with a shift to other forms of online entertainment and office tools

YoY growth of user time spent by verticals, China



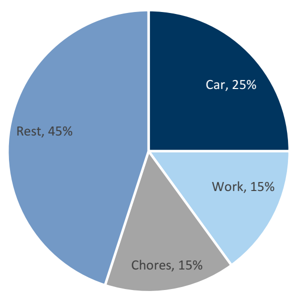
Top 100 mobile apps ranked by user time spent

Source: QuestMobile

Less commute listening, more in-home & shared consumption

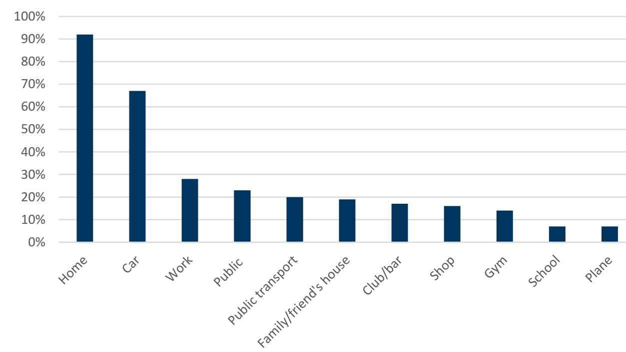
The confinement measures implemented in various markets have led to a significant drop in commute listening as well as music use in shops, bars and gyms. Spotify noted that usage in car, wearables and web platforms dropped by double digits in some instances in 1Q. According to Nielsen, 40% of daily music consumption happens at work and in the car, and according to survey respondents, streaming accounted for 15% of in-car music consumption in the US in 2017. As such, we estimate that the decline in commute listening could have had up to 20ppt impact on overall weekly streaming consumption in locked down areas (global basis). This would partly explain, in our view, the 14% wow decline in Spotify Top 200 streams in the US in the week of March 12-19 when localised lockdown measures were first enacted. Against this, we have observed an increase in music consumption (notably shared) on connected devices such as TVs or smart speakers. Spotify noted that the TV and Game Consoles audience has grown above 50% since the last week of March, with game consoles a top 2 or 3 platform in terms of consumption for the better part of the month amongst ad-funded users in the US.

Exhibit 15: 40% of music consumption in the US takes place in the car and at work
US music consumption by activity/location, 2017



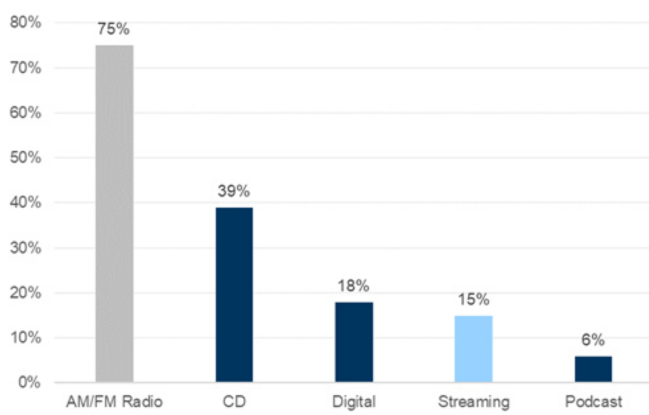
Source: Nielsen

Exhibit 16: Home is the primary location for music listening followed by car
Survey: In the past month in which of the following locations have you listened to music (UK)



Source: BPI, AudienceNet, Audiomonitor 2019

Exhibit 17: Within the car, streaming accounts for 15% of music consumption
US music consumption in the car, % of respondents, 2017



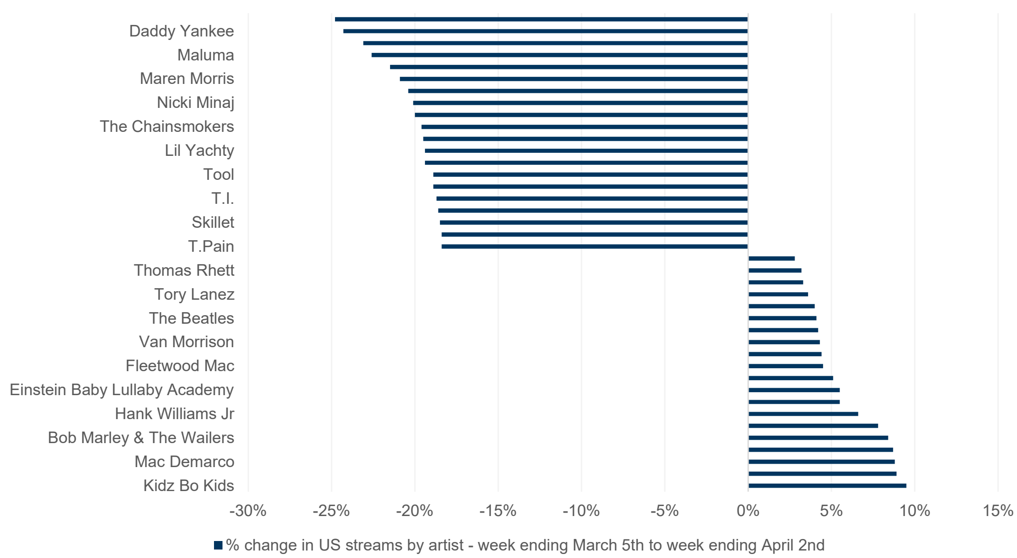
Source: Music Biz Consumer Insights, AudienceNet, Music Business Association

Mix shift towards catalogue is positive for industry's gross margins

In a recent survey by Media Research (April 17, 2020), more than a third of respondents said that they are listening to music that makes them feel more positive, listening less to new music and to more songs they already know. Deep catalogue artists including the Beatles and Fleetwood Mac for instance have seen a big increase in the number of streams in the US during March, together with children's and folk songs, while Latin, Rap and Pop genres have experienced double-digit declines in consumption. Further, we note that a number of artists including Lady Gaga, Sam Smith and Alicia Keys have postponed album/ song releases. As such, we expect the share of catalogue consumption to further increase in 2020, having already risen to 64% of total music consumption in the US in 2019, up from 55% in 2016. We believe such a mix shift could be positive for the streaming services' gross margins given the lower royalty rates paid on certain genres such as classical music as well as for music companies' gross margins given the lack of marketing and promotion associated with deeper catalogue songs.

Exhibit 18: US streams for artists such as the Beatles and Fleetwood Mac increased in March while several Latin and Rap artists saw declines, indicating a potential shift toward catalogue listening, in addition to a tick up in children's songs

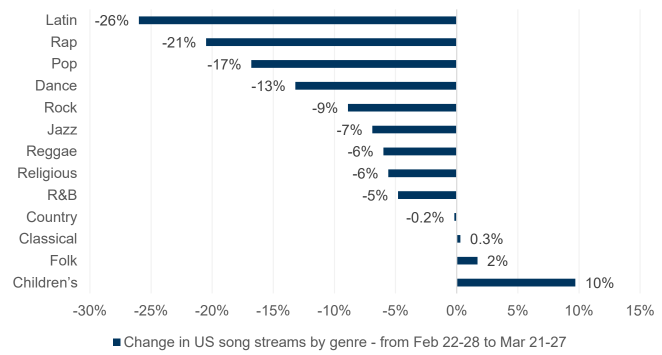
% change in US streams by artist - week ending March 5 to week ending April 2



Source: Alpha Data

Exhibit 19: Children's songs and folk songs saw growth in US streams over Feb 22-28 to March 21-27 compared to mid-teens or greater declines for genres such as Latin, Rap and Pop

Change in US song streams by genre - from Feb 22-28 to Mar 21-27



Source: Alpha Data

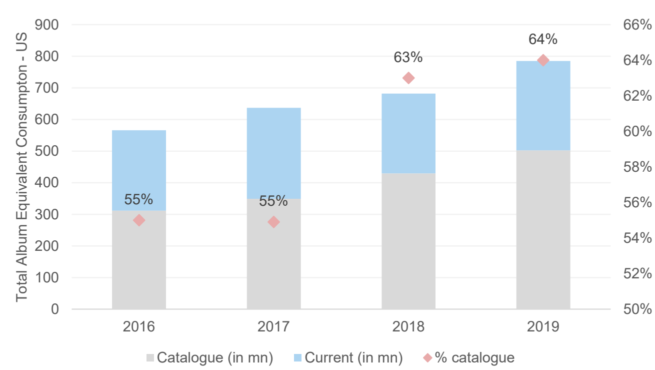
Exhibit 20: A number of artists have postponed releases amidst the current crisis

Artist	Album	Original date	Revised date
Alicia Keys	Alicia	20-Mar-20	na
Lady Gaga	Chromatica	10-Apr-20	na
Prince	Vinyl reissues - The Rainbow Children, One Nite Alone	17-Apr-20	29-May-20
Luke Bryan	Born Here, Live Here, Die Here	24-Apr-20	07-Aug-20
The 1975	Notes on a Conditional Form	24-Apr-20	22-May-20
Willie Nelson	First Rose of Spring	24-Apr-20	03-Jul-20
Haim	Women in Music Pt. III	24-Apr-20	Summer 2020
Alanis Morissette	Such Pretty Forks in the Road	01-May-20	na
Dixie Chicks	Gaslight	01-May-20	na
Lamb of God	Lamb of God	08-May-20	19-Jun-20
Margo Price	That's How Rumors Get Started	08-May-20	Summer 2020
Sam Smith	To Die For	01-Jun-20	Later in 2020
Kehlani	Second album - Unnamed	na	na

Source: Billboard

Exhibit 21: Catalogue accounts for 64% of total US music consumption across formats by volume

US Total Album Equivalent Consumption (in mn) = Albums + Track Equivalent Albums + On-demand Audio/Video Streaming Equivalent Albums



Albums + Track Equivalent Albums + On-demand Audio/Video Streaming Equivalent Albums

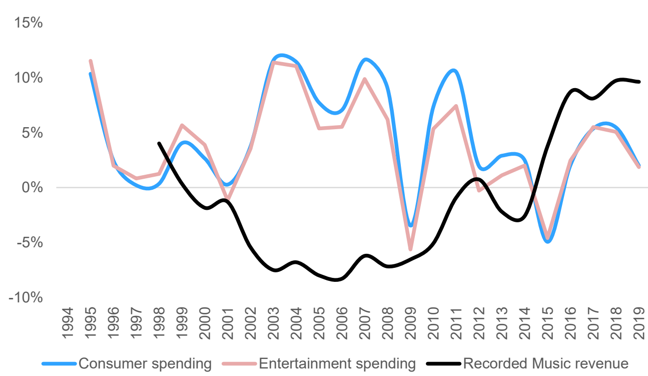
Source: Nielsen, data compiled by Goldman Sachs Global Investment Research

Streaming resilient in a recession

Lack of clear relationship between consumer expenditure and spending on recorded music

We note that while entertainment spending seems highly discretionary and vulnerable to economic recessions, historical data shows little correlation between consumer spending and recorded music spending, as prior to 2015 the recorded music industry had experienced a 15-year structural decline due to piracy. As the industry returned to growth owing to the surge in paid streaming adoption, spending on recorded music has outpaced personal consumption expenditure (PCE) growth by a factor of 2.4x since 2016. Meanwhile, we note that spending on concerts in the US concert has outpaced PCE growth by 2.8x during non-recessionary periods and 3.6x during recessions.

Exhibit 22: Recorded music spending has shown little relationship with PCE until 2015, and has since outpaced PCE growth by a factor of 2.4x



Source: Euromonitor, Goldman Sachs Global Investment Research

We expect paid streaming to be resilient amid a recession given an attractive value proposition...

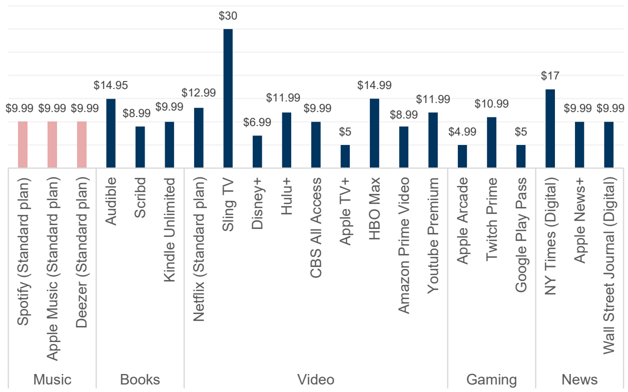
We expect streaming subscriptions, which accounted for 75% of streaming revenue in 2019, will continue to post healthy growth amid the COVID-19-related slowdown despite temporary change in consumption patterns and greater competition against other forms of entertainment (particularly video streaming). Amongst the main drivers, we note:

(i) consumer, demographic and technological tailwinds continue to drive growth in paid streaming penetration in both developed and emerging markets. **In 2019, we calculate paid streaming penetration was still only 8% of the global smartphone population, with 23% in DM and 4% in EM.**

(ii) **attractive value proposition of music streaming subscriptions relative to other forms of entertainment.** The average price of a standard music streaming subscription (US) at US$9.99 has hardly changed since the launch of Spotify in 2008. As a comparison, Netflix prices for a standard subscription have risen on average by 8%/5% per year over 2014-2019 in the US and the UK, respectively. Yet we calculate that streaming accounts for 70% of total music listening time compared to 30% for video consumption in the US, which highlights the value proposition of music streaming and should therefore in our view limit churn. Spotify has noted that the main driver of its churn remains payment failures.

Exhibit 23: The price of a standard music streaming subscription in the US is lower than many other entertainment subscription services

Monthly price/ARPU of various entertainment subscription offerings in the US

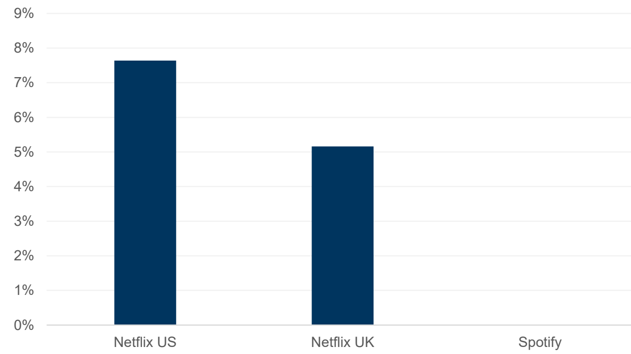


As of May 2020

Source: Company data, data compiled by Goldman Sachs Global Investment Research

Exhibit 24: Netflix prices have risen by 8%/5% CAGR 2014-2019 in the US/UK while Spotify prices are unchanged

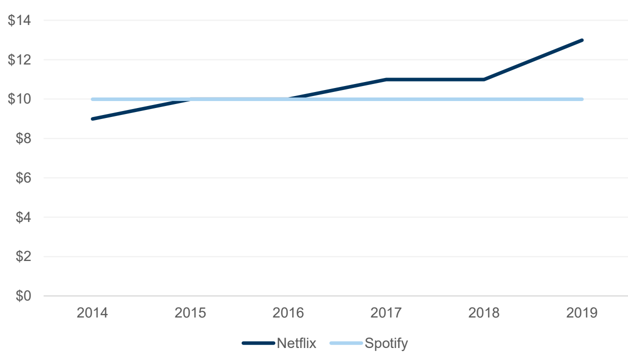
% CAGR in standard plan monthly price increase, 2019 vs. 2014



Source: Company data, data compiled by Goldman Sachs Global Investment Research

Exhibit 25: Spotify standard subscription is 23% cheaper than Netflix in the US

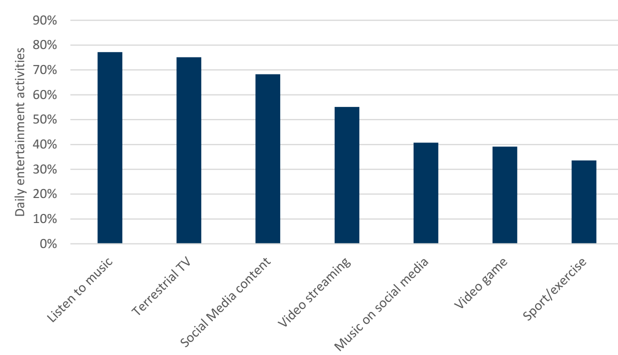
US standard plan price ($) - Netlflix, Spotify



Source: Company data, data compiled by Goldman Sachs Global Investment Research

Exhibit 26: Music is one of the most consumed forms of entertainment

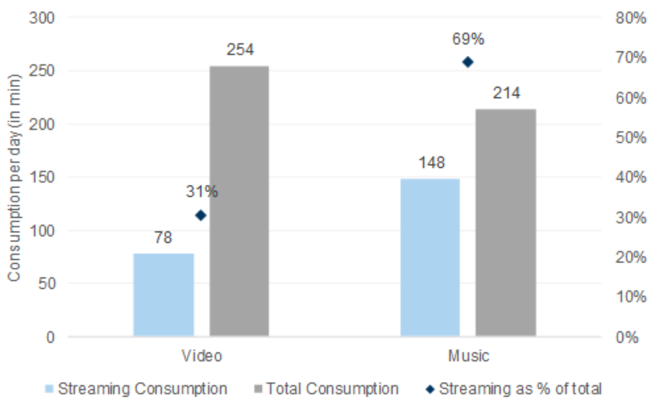
Survey: What activities do you carry out on a typical day? (% of respondents, UK)



Source: BPI, AudienceNet, Audiomonitor 2019

Exhibit 27: Streaming in music accounts for a higher share of consumer time vs. video

Average streaming minutes in music/video streaming



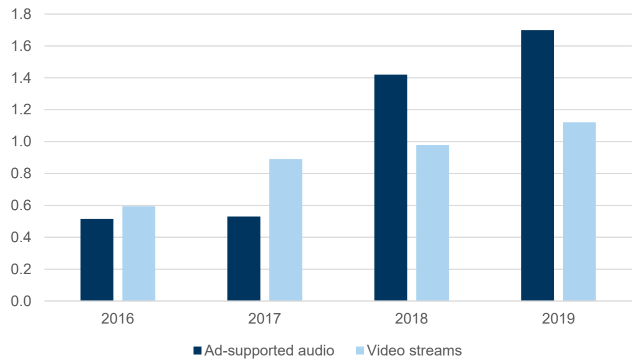
Source: Nielsen, Variety, Company data, Goldman Sachs Global Investment Research

Overall, we forecast **paid streaming revenue to grow 19% in 2020** (20% prior) following +25% in 2019, to US$18 bn. This is based on **75mn net adds** in 2020E following 86mn in 2019, reflecting a short term deceleration in gross additions and slightly lower paid conversion rate. We forecast **7% ARPU decline** in 2020 following -10% in 2019 reflecting near-term promotions and the ongoing dilution from family plans and EM growth.

... while ad-funded streaming could be impacted by weaker demand

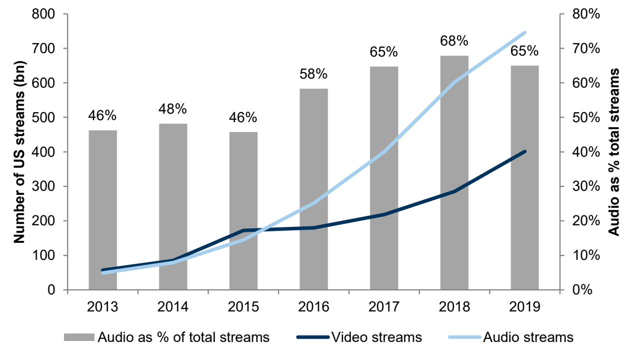
We believe advertising revenues could be impacted by weakening advertiser demand, with global advertising spending displaying a typical 2-3x relationship with real GDP. However, we believe audio and video streaming should outperform in this environment given the surge in online viewership (especially YouTube and TikTok) and the accelerated shift of ad dollars from offline to online. We note that **audio streams have increased 50% CAGR over the past three years and video by 25% in the US compared to a 3% decline pa in radio consumption**. Yet the **US radio advertising market was worth US$16.6 bn in 2019 compared to US$1.2 bn for ad-supported streaming** (source: GroupM/ RIAA). Overall, we forecast ad funded streaming to grow 15% in 2020 (21% prior), consistent with our YouTube ad growth forecasts, following +18% in 2019, to US$7 bn.

Exhibit 28: Ad supported audio / video revenue has grown 50%/ 24% CAGR 2016-19 globally
US$ bn



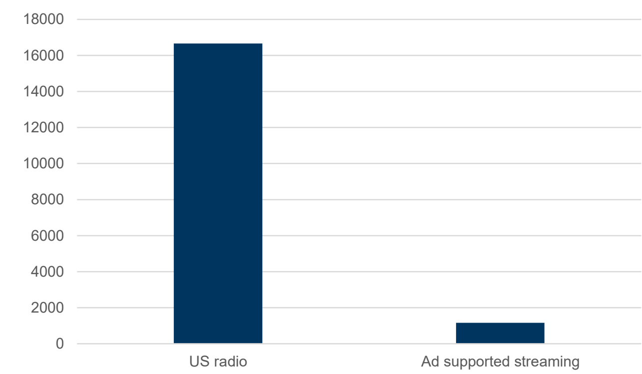
Source: IFPI Global Music Report 2020

Exhibit 29: Audio/ video streams have grown at 50%/ 25% CAGR over the past 3 years (vs. radio consumption at -3%)
Total US audio and video on-demand streams (LHS), audio as % of total streams



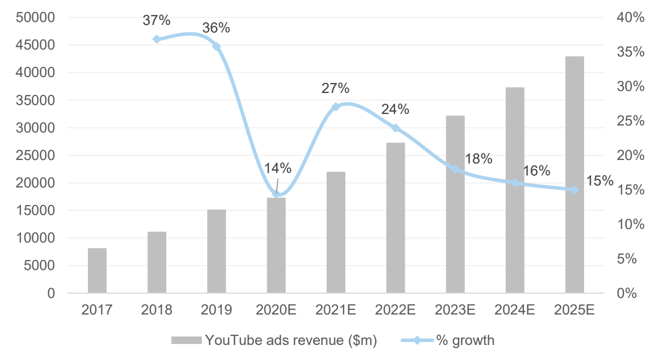
Source: Nielsen, data compiled by Goldman Sachs Global Investment Research

Exhibit 30: Yet radio advertising market is 14x bigger than ad supported music streaming in the US
US$ mn (2019)



Source: GroupM, Recording Industry Association of America

Exhibit 31: We expect YouTube to grow its ad revenues by 14% this year following +36% in 2019
YouTube total ad revenues ($m) and % yoy growth



Source: Company data, Goldman Sachs Global Investment Research

Recent updates from various industry players have been encouraging

Recent updates from the main industry players point to sustained momentum in paid streaming in 1Q20 although advertising has softened:

- **UMG**'s streaming revenues were up 16.5% organically in 1Q20, in line with 4Q19, with strength across both subscription and advertising, although we note record companies recognise streaming revenues with 1-month lag vs. actual consumption. At Vivendi's AGM on April 20, the company noted that it expects COVID-19 to have a negative impact on ad-funded streaming in the near term while paid streaming should be more resilient.
- **Spotify** reported 6mn premium subs additions in 1Q20 (vs. +4mn in 1Q19) to reach 130mn, above consensus of 128.6mn. The mid-point of 2Q guidance for net adds (3-8mn) was also above consensus, while FY guidance for net adds (19-26 mn) was reiterated. On the COVID-19 impact more specifically, the company experienced substantial growth in new and reactivated MAUs during the lockdown in major

markets. Among Premium subs, churn improved more than 70 bps yoy, with one-sixth of US users citing COVID-19 reasons for canceling their account in Spotify's exit survey, although more than 80% of these respondents indicated renewing intention on improvement in the economic situation. Management however lowered its FY20 revenue guidance to €7.65-€8.05bn (vs. €8.08-€8.48bn prior) mainly on forex headwinds and changes in advertising expectations related to COVID-19.

- **Sony Music** reported streaming growth of 27.5% at constant currency in 4QFY19 (March end) and recorded music growth of -2.8%, mainly due to a decline in Physical of -27.7%. The company noted an impact on the music segment from COVID-19 due to delays in new music releases, decline in CD sale and in ticket and merchandising revenues as well as lower licensing revenues.
- **Apple** stated at its F2Q results (ending March 28, 2020) that Apple Music had set all-time revenue records in the March quarter with paid subscriptions up strong double digits and the strong performance expected to continue throughout the June quarter. The last reported figure for Apple Music subs (incl. free trials) was 60mn in June 2019 (Musically, June 2019).
- **Amazon** announced in January 2020 that Amazon Music had over 55mn customers globally across all its music services, although this number would also include those accessing the service through Amazon Prime.
- **TME's music subscription revenue growth** in 1Q20 accelerated to a record high 70% yoy growth vs. 60%/26% in 4Q19/1Q19, backed by solid subs adds of 2.8mn (vs. 4.5mn/1.4mn in 4Q19/1Q19) and 13% music ARPU improvement. Online music paying ratio improved 30bps qoq to 6.5%. Looking beyond the lockdown, management expects the online music revenue growth acceleration trend to continue in 2Q20 as the company expedites subscriber growth and promotes the diversified monetisation of online music assets as well as explores audio advertising like its international peers.
- **YouTube** ad revenues were up 33% yoy in 1Q20 with strong growth until late in the first quarter and a deceleration to high single growth by the end of March, mainly driven by headwinds in brand advertising, although direct response continued to have substantial growth. Prior to this, Alphabet announced at its FY19 results on February 3, 2020 that YouTube had over 20mn paid subscribers at the end of 2019 across YouTube Music and YouTube Premium, which represents an increase of 5mn subs compared to the figures reported in May 2019 (Bloomberg, May 8, 2020).
- **Sonos** said it has seen materially better trends in April (total revenue -5% yoy) following a large decline in March (-23%). Listening hours were up 32% in March and 48% in April.

Streaming: a 1.2bn paid user opportunity by 2030E

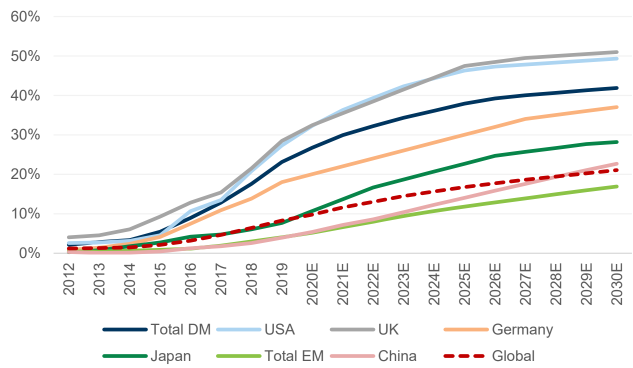
Over time, we expect the industry to benefit from growing paid streaming penetration in both DM and EM, proliferation of new services, expansion into new markets and improved pricing as well as consumer and technological tailwinds. We raise our global paid subs estimates by 6% to 1.22bn in 2030, implying paid subs penetration of 21% in

2030 from 8% in 2019, but lower our 2030 ARPU forecast by 9% to US$44 reflecting greater dilution from EM, family plans and bundles. Overall, we forecast the streaming market to grow at a 12% CAGR 2019-30 to reach US$75 bn by 2030.

Streaming to benefit from a number of secular tailwinds

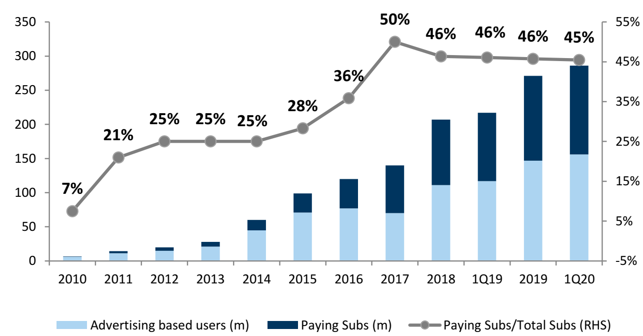
- **Growth in paid streaming in key developed markets** such as the US (27% penetration in 2019), the UK (28%), Germany (18%) and Japan (8%), where penetration rates are still well below those in early adopter markets such as Sweden (43%). Meanwhile, the ratio of paid vs. total MAUs has improved across the main streaming services in recent years (Spotify has been stable around 45% since 2017).

Exhibit 32: Our 21% global paid streaming penetration rate estimate in 2030 is based on 42% penetration in developed markets and 17% penetration in emerging markets
Streaming penetration by market (as % of smartphone users), 2012-30E



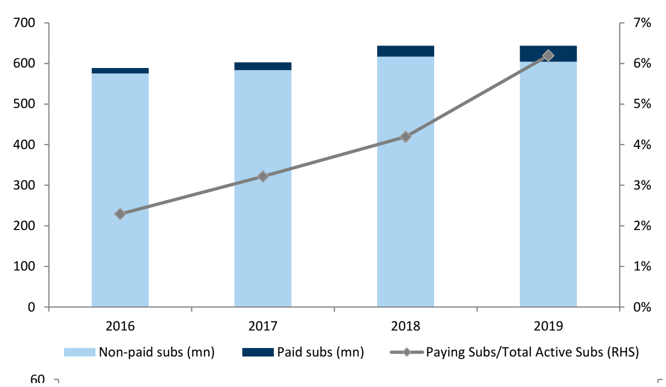
Source: IFPI Global Music Report 2020, Goldman Sachs Global Investment Research

Exhibit 33: Spotify's conversion rate has improved over time and stabilised around 45%
Spotify - paid user share as % of total MAU



Source: Company data

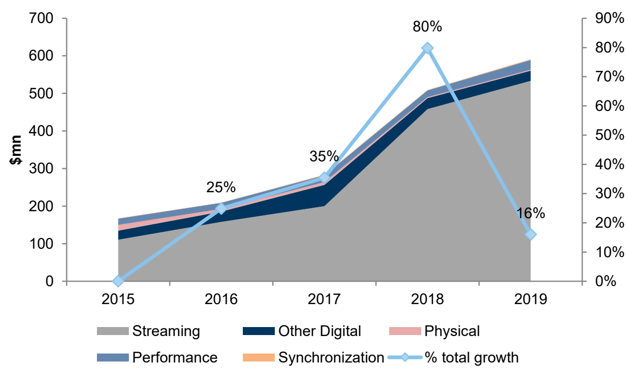
Exhibit 34: Pandora paid user ratio has increased to c.6% although remains low
Pandora - paid vs non-paid subscribers



Source: Company data

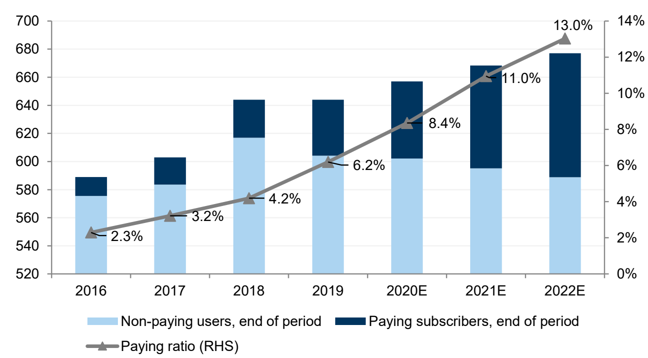
- **Significant growth opportunity in emerging markets**, particularly in China and India where penetration rates currently stand at 4% and 3%, respectively, on our estimates. We estimate **China** alone, which was the **world's 7th largest recorded music market in 2019 with 3% share** of revenue (US$590 mn), will contribute 4-5ppt of growth for the streaming market over 2019-30. China has a huge addressable base of >650mn monthly active users but only 40mn paid subscribers in 2019, implying 6% paying ratio compared to 22.5% in online video and 30.5% in mobile games.

Exhibit 35: China's recorded music market has grown at a 37% CAGR over 2015-19 driven by 48% CAGR in streaming revenues
China Recorded Music market ($m)



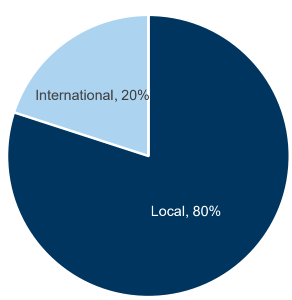
Source: IFPI Global Music Report 2020

Exhibit 36: We expect Tencent Music's paid user ratio to increase to 13% by 2022 from 6.2% at the end of 2019
Tencent Music - paying vs. non-paying users



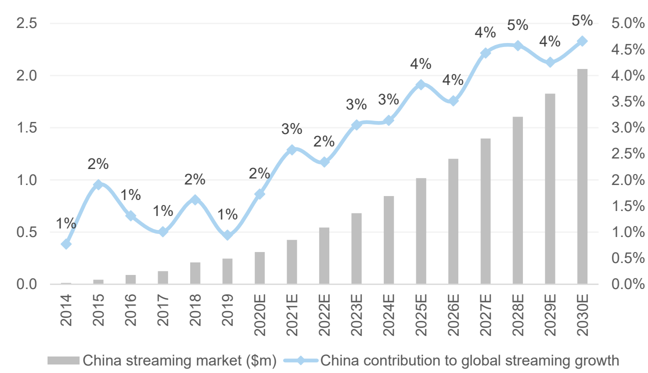
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 37: We estimate 80% of Chinese music consumption is local
China - local vs international



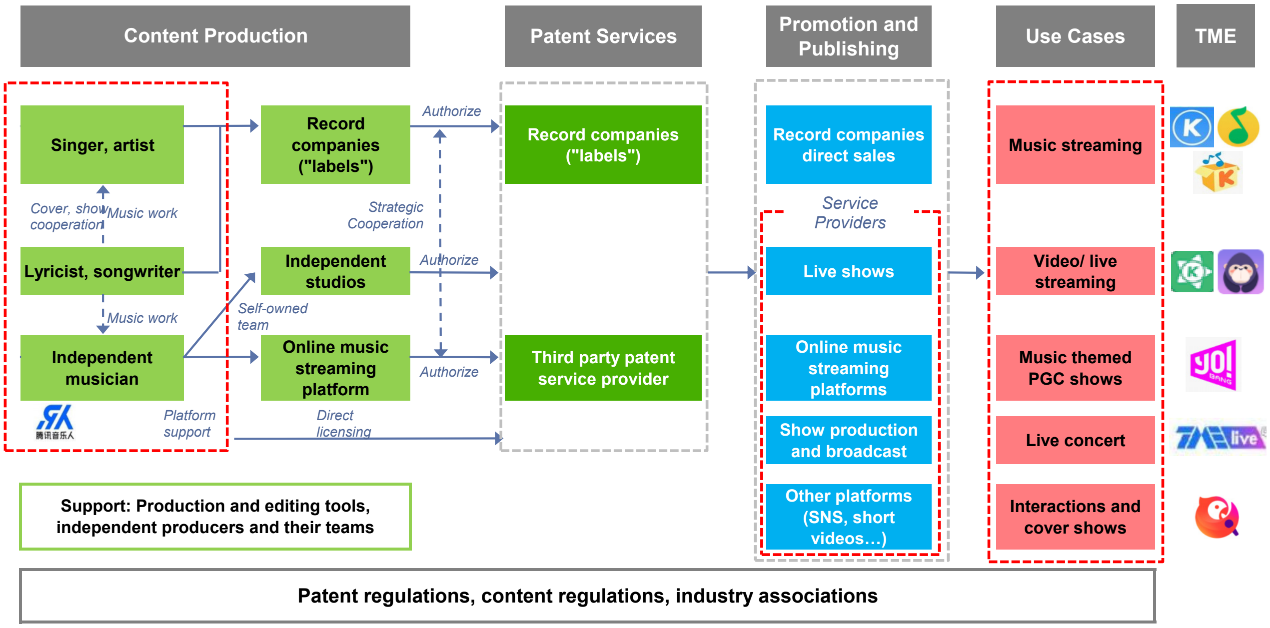
Source: Goldman Sachs Global Investment Research

Exhibit 38: We expect China to contribute 4-5ppt to global streaming growth going forward
China Streaming market (US$mn) and % contribution to global streaming growth



Source: IFPI Global Music Report 2020, Goldman Sachs Global Investment Research

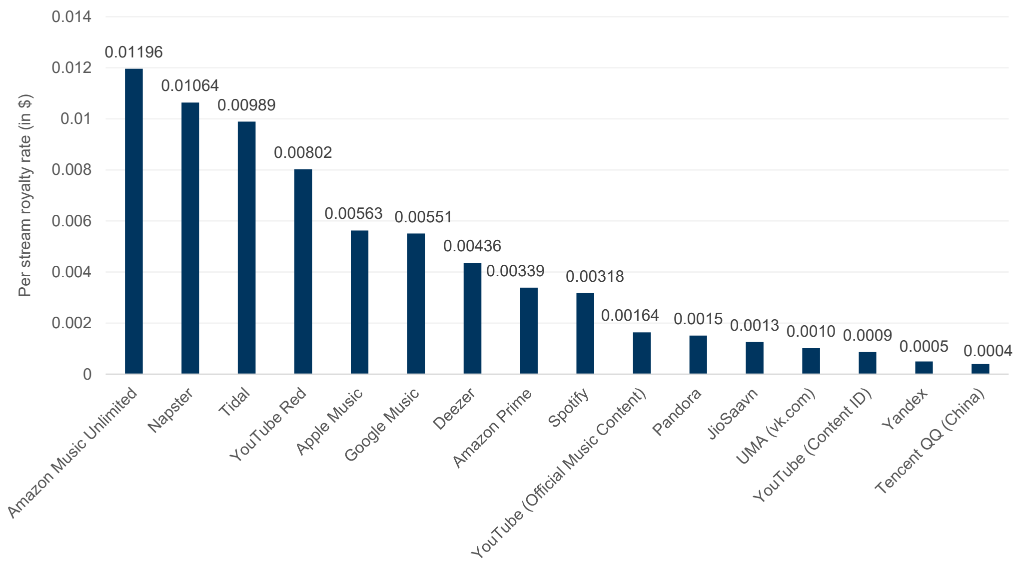
Exhibit 39: TME has penetrated most use cases of the music industry in China, while the next frontier will be going upstream along the music value chain



Source: Goldman Sachs Global Investment Research

India accounted for less than 1% of global recorded revenue (US$ 181 mn) in 2019 despite a large base of **200mn unique streaming users** as of February 2020 (up from 100mn as of August 2018; source: Musically, February 10, 2020). Streaming is now 70% of the market although it is still largely dominated by ad-supported revenue, with India representing the **world's third largest ad funded market.** We estimate paid user penetration as a share of total smartphone users is only 3% as of 2019. The wide availability of low-cost mobile data following the launch of mobile operator Jio in 2016 has been a key catalyst for music streaming, but increased competition also led to price cuts by the major players, which resulted in just 5% paid streaming growth in 2019 following a 49% CAGR over 2015-19, based on IFPI data. While near-term ARPU growth will remain muted in our view, we see significant growth opportunity in both ad funded and paid streaming adoption, with nearly **67% of people in India still listening to pirated music** compared to a global average of 27% (The NextWeb, February 16, 2020). We believe that the variety of freemium offerings should drive a greater adoption of free tiers of licensed music services, while the low price points ($1-2 per month) for paid tiers should also improve the paid-user conversion, thereby improving monetisation for rights holders.

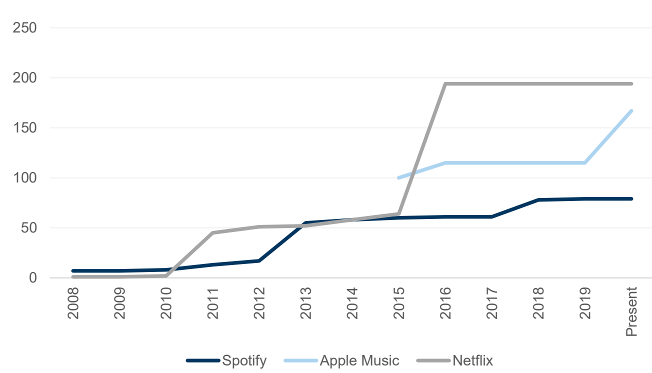
Exhibit 40: The per stream payout is significantly lower in EM
Weighted average per stream payout (in US$), 2019



Source: Soundcharts, Trichordist, Digital Music News

- **Proliferation of new services and expansion into new markets.** While there are **more 400 music streaming services globally** according to IFPI, major global platforms such as **Spotify still only operate in 79 markets**, compared to Netflix at 194, with the former looking to expand into new markets including Russia and South Korea. **Apple Music** announced its **expansion into 52 new markets** in April 2020, bringing the total to 167. Meanwhile, **ByteDance's music subscription service Resso** just launched in India in March this year and is reportedly to roll out in Brazil and other emerging markets before potentially expanding into the US and Europe (The Independent, December 16, 2019).

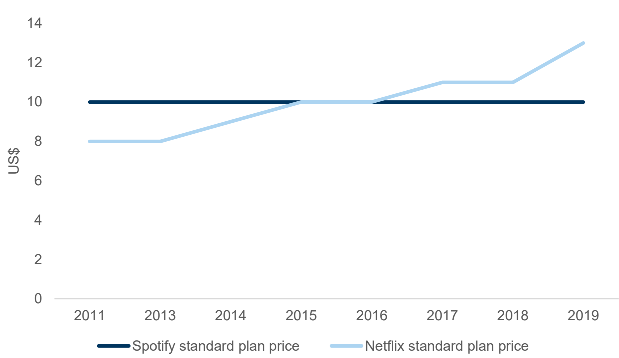
Exhibit 41: Spotify today operates in 79 markets, compared to Apple Music at 167 and Netflix at 194
Number of markets of operation



Source: Press reports, Company data, data compiled by Goldman Sachs Global Investment Research

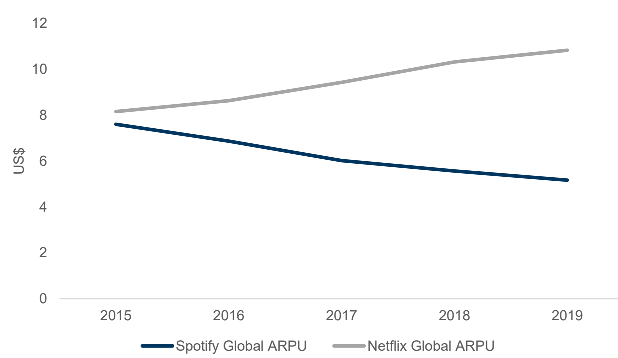
- **Improved pricing:** We see scope for price rises over time as the broader streaming market matures. We note that the **price of a standard music streaming subscription has remained unchanged at $9.99 for the past decade**, while the price of a basic Netflix subscription has increased from $7.99 in 2011 to $12.99 currently in the US. Spotify experimented with its first price rise in 10 years in Norway in 2018, where it raised its standard plan retail price by 10% to NOK109 ($12.12), followed by a 13% rise to c.$17 for its family plan in the rest of Scandinavia in 2019. Encouragingly, the company has noted that the response in those markets has been very positive. We also expect streaming platforms to **tighten the definition of family plans**, which have been a major source of ARPU dilution (and concerns for the record labels) over the last few years. Meanwhile, we see opportunity to grow ARPU through the **proliferation of premium products** at higher prices such as high-definition audio (Tidal Hifi in 2017, Amazon Music HD in 2019).

Exhibit 42: Spotify's standard plan has remained constant at $9.99 since its launch in the US in 2011 while Netflix's price has increased several times
Standard plan pricing (US$)



Source: Company data, data compiled by Goldman Sachs Global Investment Research

Exhibit 43: Spotify's ARPU has declined 9% pa since 2015 mainly due to the dilution from Family Plans, while Netflix's ARPU has risen 7% over the period
Netflix vs. Spotify ARPU

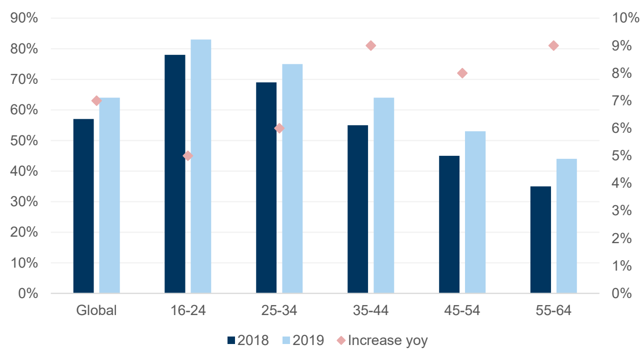


Source: Company data

- **Consumer, demographic and technological tailwinds.** Music streaming services have significantly improved the access and convenience to music, which we believe consumers will ultimately be willing to pay for. With **Gen Z and millennials streaming significantly more** than the population average, music streaming should also benefit from the Millennials' "experience economy". Meanwhile, **continued device proliferation** (incl. smartphones, tablets, wearables, digital dashboards, gaming consoles and smart speakers) is enabling a seamless and deeper listener engagement and thus driving further growth in music streaming consumption.

Exhibit 44: More than 3/4th of 16-34 year olds in the US report using audio streaming services to listen to music, while older generations are also increasing adoption rapidly

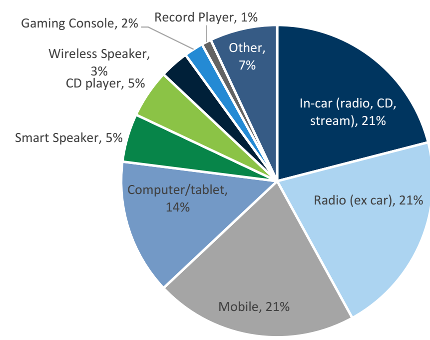
% who listened to music through audio streaming services - US



Source: Nielsen

Exhibit 45: A proliferation of devices help boost music consumption

Music consumption by device, 2019



Source: BPI, AudienceNet, Audiomonitor 2019

Streaming estimate changes

We forecast the paid streaming market to grow at a 12% CAGR 2019-30 to reach US$52 bn by 2030 (prior US$54 bn) from US$15.5bn in 2019, as higher subs growth is offset by lower ARPU assumptions.

Exhibit 46: Changes to Streaming market forecasts

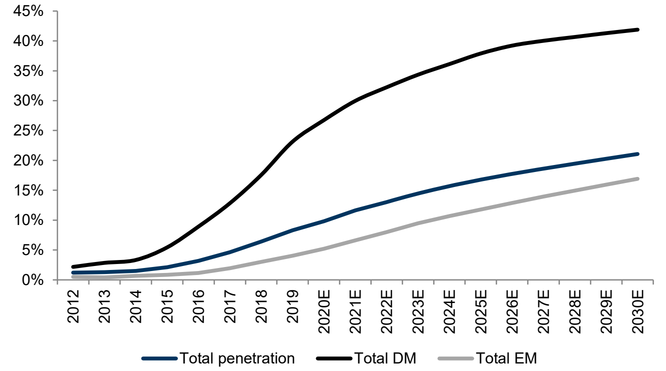
	2019		2020E		2023E		2030E		% change			
	New	Old	New	Old	New	Old	New	Old	2019	2020E	2023E	2030E
Streaming												
Streaming Market ($bn)**	$21.6	$21.8	$25.4	$26.6	$39.3	$43.2	$75	$74	-1%	-5%	-9%	2%
Paid Streaming Market ($bn)**	$15.5	$16.8	$18.3	$20.5	$28.1	$33.0	$51.9	$53.9	-8%	-11%	-15%	-4%
Ad funded Streaming Market ($bn)**	$6.1	$5.0	$7.0	$6.1	$11.3	$10.2	$23.3	$19.7	22%	15%	11%	18%
Paid Subscribers (mn)	341	328	416	397	671	589	1,220	1,148	4%	5%	14%	6%
Developed Market (mn)	212	228	246	264	321	337	403	370	-7%	-7%	-5%	9%
Emerging Market (mn)	129	100	170	134	350	273	817	778	29%	27%	28%	5%
Annual ARPU ($)	$51.9	$57.5	$46.0	$56.6	$44.2	$51.6	$44.0	$48.2	-10%	-19%	-14%	-9%

**Streaming revenues are gross figures

Source: IFPI Global Music Report 2020, Goldman Sachs Global Investment Research

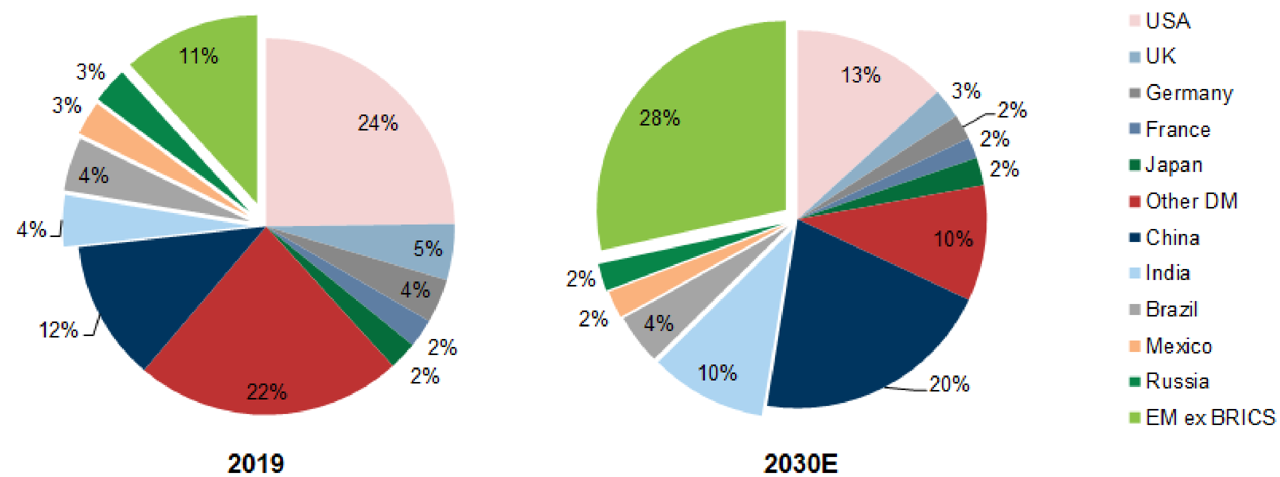
We raise our global paid subs estimates by 6% to 1.22bn in 2030 (1.148bn prior), which implies paid subs penetration of 21% in 2030 (20% prior) from 8% in 2019, with DM rising to 42% (40% prior) from 23% in 2019 and EM rising to 17% (16% prior) from 4%. As a result, we expect EM to account for 67% of global subs in 2030 from 38% in 2019.

Exhibit 47: We estimate global paid streaming penetration to reach 21% by 2030, with DM markets to plateau at c.42%.
Paid streaming subscriber penetration forecasts



Source: IFPI Global Music Report 2020, Goldman Sachs Global Investment Research

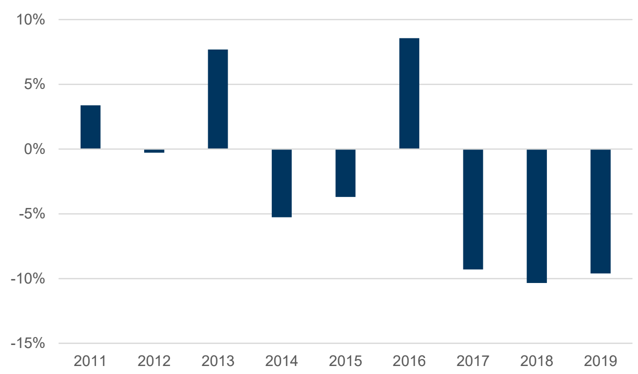
Exhibit 48: We expect China and India to contribute a significantly larger share of global streaming subscribers by 2030
Streaming subscriber mix by geography - 2019 vs. 2030E



Source: IFPI Global Music Report 2020, Goldman Sachs Global Investment Research

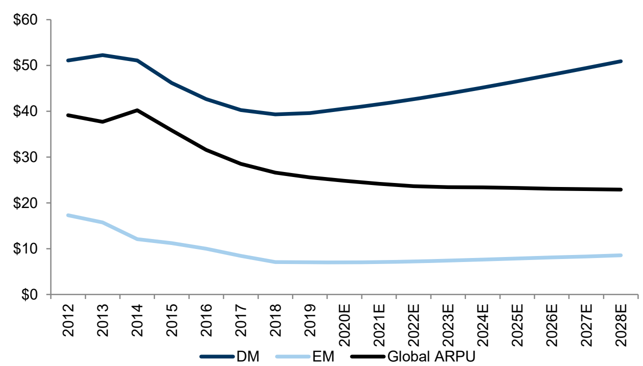
Offsetting this, we **lower our 2030 ARPU forecast by 9%** to US$44 (prior US$48) reflecting a weaker-than-expected ARPU development in recent years (ARPU was down 10% pa over the last three years) and further dilution from EM, family plans and bundles. We forecast 7% decline in ARPU in 2020 as weaker macro conditions may drive a greater mix shift towards family plans and bundles, followed by 3% decline pa over 2021-23. From 2024 onward, however, we anticipate ARPU will stabilise, driven by labels pushing for a narrowing of family plans and higher basic plan rates as well as proliferation of higher priced premium products such as HD. **Spotify's price experimentation in the Nordics has been encouraging**, and we believe some of the more mature markets will also be able to absorb moderate price increases in the coming years. That being said, we believe that **faster subscriber adoption at the expense of short-term ARPU trends is a long-term positive** for all players in the ecosystem, with a combination of access, convenience and personalisation continuing to boost music consumption and engagement, which in turn should drive down churn rates and reduce price sensitivity over time.

Exhibit 49: Global streaming ARPU has declined 10% yoy in the past 3 years
Global streaming ARPU growth



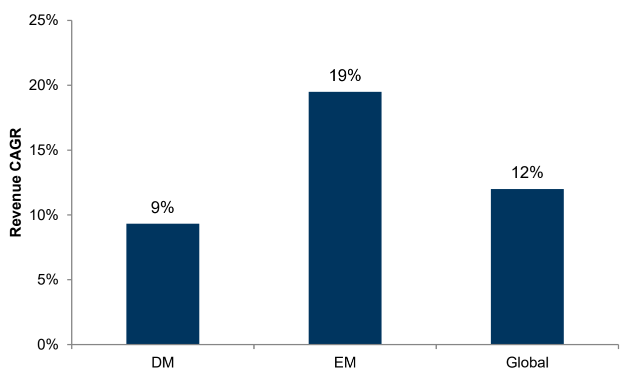
Source: IFPI Global Music Report 2020, Goldman Sachs Global Investment Research

Exhibit 50: We forecast a further decline in ARPU (record label share) in the next 4 years, with a stabilisation from 2024 as pricing improves
Paid Streaming ARPU - Global, DM and EM



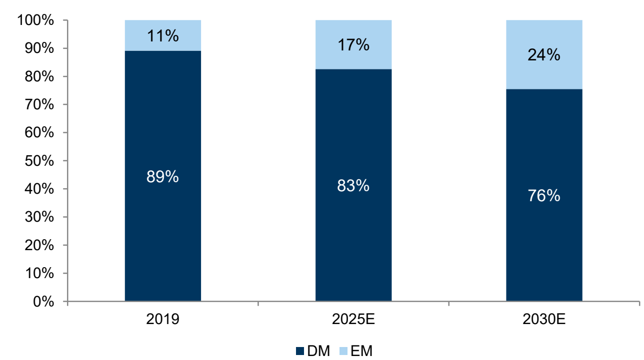
Source: IFPI Global Music Report 2020, Goldman Sachs Global Investment Research

Exhibit 51: We expect streaming revenue to grow at 12% CAGR 2019-30 with 19% in EM and 9% in DM
Revenue growth by market (DM, EM and Global)



Source: IFPI Global Music Report 2020, Goldman Sachs Global Investment Research

Exhibit 52: DM to still account for 76% of paid streaming revenue by 2030E
Share of global paid streaming revenue - EM vs DM



Source: IFPI Global Music Report 2020, Goldman Sachs Global Investment Research

We **raise our ad-funded streaming forecasts more substantially by 18% to reach US$23 bn in 2030** (US$19.7 bn prior) on the back of a stronger-than-expected performance in 2019 (ad funded revenues reached US$6.1 bn according to IFPI, or 22% above our prior estimates) and improved monetisation of music videos on YouTube/Facebook and new entrants such as TikTok.

Competitive landscape: no winner takes all

The music streaming landscape saw further fragmentation in 2019, although it remains largely dominated by a handful of large global/regional players. Spotify lost 130bp of market share in 2019 (-270bp in 2018) but remains the largest player globally, with 36% share. Apple Music lost 160bp of market share in 2019 for the first time since launch, with 19% share. China-based Tencent Music gained 130bp of market share to reach 12%. Amazon Music was the fastest growing music service in 2019 with over 55mn users across its music services (including Prime), up from 32mn as of July 2019 and

20mn in 2018. Within this, we estimate the number of Amazon Music Unlimited subscribers to have increased by 14mn to 26mn in 2019, implying nearly 300bp of share gain to reach 8%. Following a relatively soft start, we estimate YouTube Music subscribers increased to 13mn implying 4% share. The long tail of other streaming services (c.400 globally) maintained their share broadly flat at 22%.

We believe the market will remain highly competitive in the coming years given the potential global expansion of ByteDance's Resso, the recently announced expansion of Apple Music into 52 new markets (albeit small) and the surge in smart speaker listening amid COVID-19 benefiting Amazon Music.

Recorded Music: Streaming the beating heart

Streaming returned the recorded music market back to growth in 2015 following 15 years of decline (average -4% pa) due to piracy and unbundling. Since 2015, the industry has grown at an average rate of 10% pa with an acceleration to c.12% in the last three years based on IFPI data. We believe record labels **retain an essential and integral role** in the discovery and development of recording artists and see a number of secular tailwinds driving a **7% revenue CAGR to reach c.US$45 bn by 2030**:

(i) secular tailwinds such as **technological innovation and consumer preferences for access and experience** over ownership, particularly amongst **Gen Z/ Millennials** fueling greater adoption of paid streaming services,

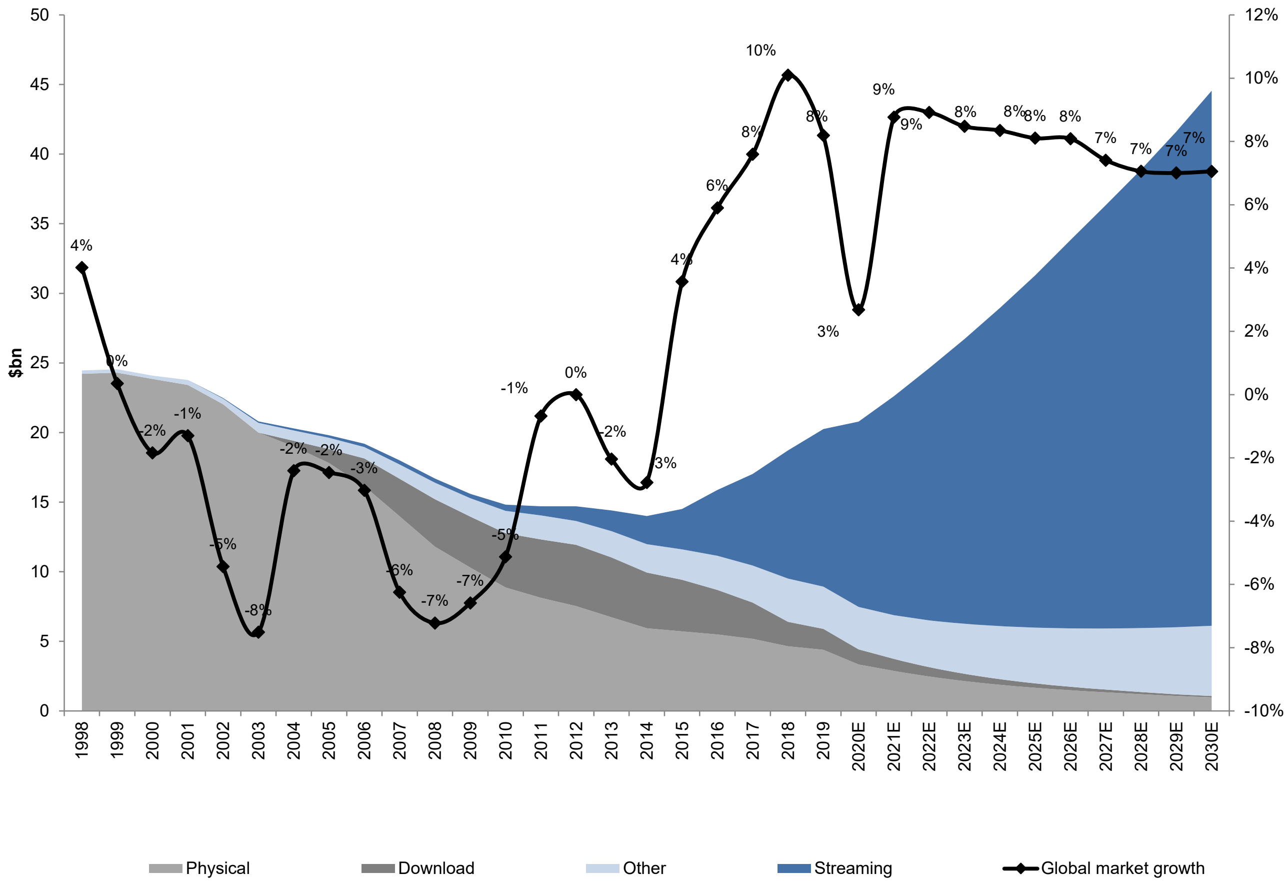
(ii) **government intervention** to curb piracy and improve monetisation rates for content owners, and

(iii) **licensing opportunities from new formats** (e.g. short form videos/ e-fitness).

Notably, we believe record labels will be the largest beneficiaries of the growth of music streaming given they receive **52%-58% royalty rates from the major distributors — rates which we do not expect to change** in the near to medium term.

Nearer term, we believe the significant disruptions related to COVID-19 (store closures, cancellation/ postponement of live events) will have a meaningful impact on a number of segments within the recorded music industry, particularly physical and merchandising sales. The key streaming segment, which now accounts for the majority of recorded revenue, will however remain resilient in our view as discussed in the earlier section. As such, we reduce our forecasts for the recorded music market by 8% in 2020 and expect growth to slow to c.3%, marking the first year of meaningful deceleration since the industry returned to growth in 2015. Beyond this, we believe the current crisis will contribute to **further accelerate the shift from CD sales towards paid streaming**, which should ultimately benefit the overall recorded music industry given the **recurring nature of streaming revenue and the higher ARPU and gross margin associated**. Further, we believe this can also accelerate record labels' **D2C push,** notably in **physical and merchandising sales,** as well as **live streaming of concerts.**

Exhibit 53: We forecast the global recorded music market to grow 3% in 2020 and in the high single digits over 2021-30 led by streaming
Global Recorded Music market breakdown ($bn, LHS), % growth (RHS)



Source: IFPI Global Music Report 2020, Goldman Sachs Global Investment Research

2020 outlook: a pause in growth

We expect the recorded music market growth to pause in 2020 due to the near-term disruptions related to COVID-19, which will **significantly affect the physical, merchandising and live performance revenue streams** within the recorded music segment. We expect the **key streaming segment**, which accounted for 56% of recorded music revenues in 2019, to **remain resilient** given the secular growth of **subscriptions which accounted for 75% of streaming revenues**. Overall, **we forecast 3% revenue growth for the recorded music market in 2020, following average growth of around 9% in the past three years**, based on 18% growth in streaming, 24% decline in physical and flattish growth in performance & sync royalties.

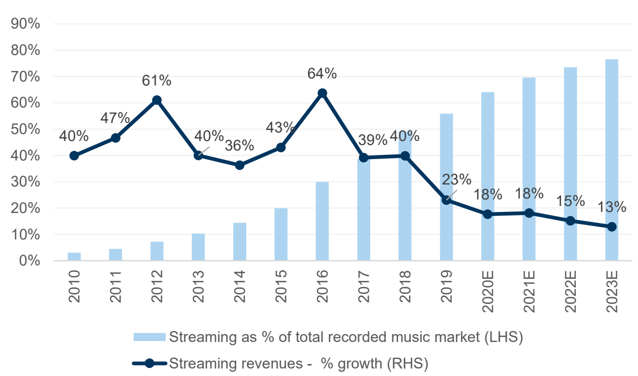
Driver # 1: Paid subscriptions & market share matter for streaming

While we expect streaming consumption will remain volatile and noisy amid COVID-19, we note that record labels derive >75% of streaming revenue from subscriptions, where **payments are determined by the overall subscription revenue pool and the labels' respective market shares, with a typical 1-month lag**. As noted earlier, we believe the near-term outlook for paid streaming will remain healthy despite weaker consumer spending given the relatively low penetration rates and the attractive value proposition of paid streaming. Assuming a take rate of 52%-58% (average 55%), this implies **paid streaming revenue for the recorded music market of US$10 bn in 2020E, up 19% yoy**. Meanwhile, we expect **the majors to maintain or even grow their market share this year** given the strength and depth of their catalogues, while we believe their greater financial resources will allow for **further investment in Artist & Repertoire and catalogues to support growth**. Our analysis of **Spotify Global Top 50 chart indicates that the majors commanded 89% share of streams as of April 22, 2020.**

Advertising-funded streaming accounts for 25% of streaming revenue and typically depends more on consumption volumes and advertiser demand. Assuming a take rate of 45%, this implies **US$3.2 bn ad funded revenue for record labels in 2020E, up 15% yoy.**

Exhibit 54: We expect streaming to grow 18% even in 2020, accounting for 64% of the global recorded music market

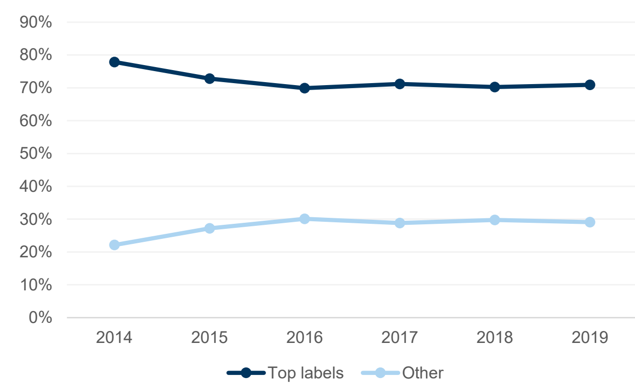
Streaming revenue as % of total recorded music and streaming revenue yoy growth



Source: IFPI Global Music Report 2020, Goldman Sachs Global Investment Research

Exhibit 55: The top labels' share increased 70bp yoy to 70.9% in 2019

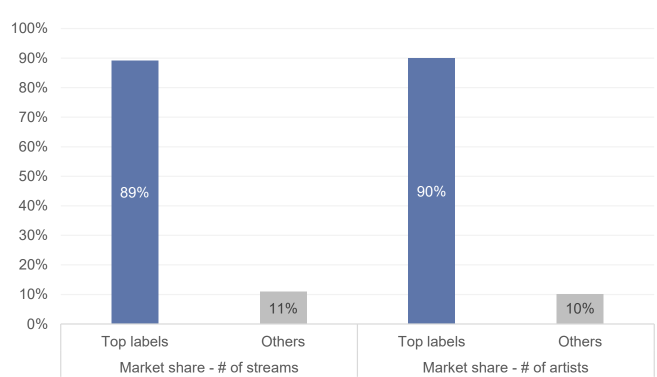
Record label market shares



Source: IFPI Global Music Report 2020, Company data

Exhibit 56: The top labels account for 89% of streams in the Spotify Top 50 chart

Label market share amongst Spotify Top 50 playlist, April 2020



Source: Spotify, data compiled by Goldman Sachs Global Investment Research

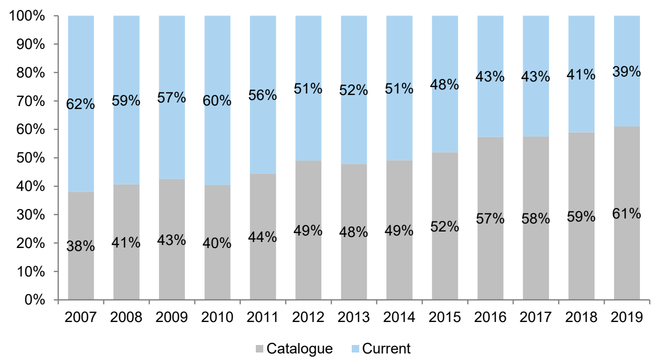
Driver # 2: Physical sales to suffer from store closures and lack of new releases

While **physical sales have been in structural decline for the past 20 years**, the segment still accounts for **12% of the recorded music market** and is heavily reliant on new releases and physical distribution, albeit much less so than in the past. We believe physical sales will be severely impacted in the near term by:

(1) a lack of major releases in the near term, with major CD heavy artists (Lady Gaga, Sam Smith) having postponed the release of their albums until later in the year. We note however that even the **physical market has become less dependent on frontline sales**, which accounted for 39% of physical sales in the US in 2019 compared to 62% in 2007.

Exhibit 57: Physical album sales have become less reliant on new releases

US physical album sales - % share of catalogue vs current



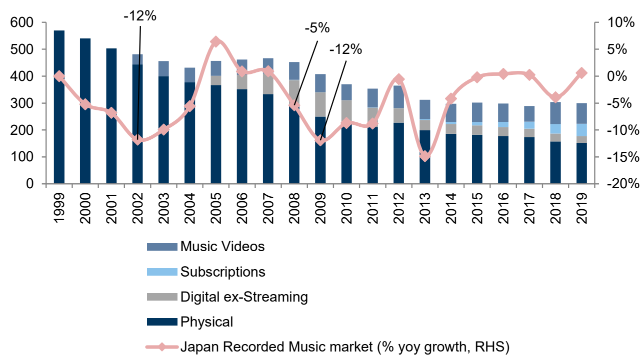
Source: Nielsen

(2) supply chain disruptions from store closures with **physical stores still representing around one-third to one-half of physical sales on our estimates**.

We note that in prior downturns, the recorded music industry was already in the midst of a structural decline driven by piracy and deflation from digital downloads. We observe that the rate of decline in the recorded music market accelerated during the last two recessions in the US and Japan mainly driven by physical sales. The decline in physical sales deteriorated -1.6pp in 2001 and -3.3ppt/-5ppt in 2008/09 in Japan and -2.2ppt/-4.2ppt in 2001/02 and -8.7ppt in 2008 in the US, followed by an improvement subsequent years (+2.5pp/+2.1pp in 2002/2010 in Japan and +2.2pp/+7.6pp in 2003/2009 in the US). As such, **we forecast -24% physical revenue decline in 2020 following -5% in 2019, with an improvement to -14% in 2021.**

Exhibit 58: The decline in the Japanese music market accelerated in 2002 and 2009 due to physical sales

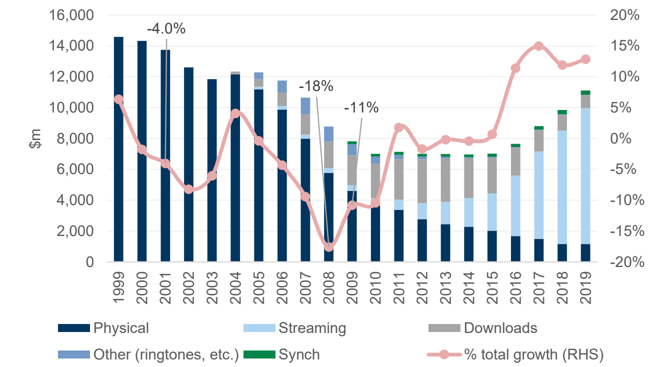
Japan Recorded Music market (Yen bn, LHS), % growth (RHS)



Source: RIAJ

Exhibit 59: The decline in the US recorded music market also accelerated in 2002 and 2008 driven by physical

US Recorded Music market ($m, LHS), % growth (RHS)



Source: RIAA

Driver # 3: Licensing income to be impacted by live event disruptions and weaker ad market

Licensing income is predominantly generated through performance (14% of revenues, as per IFPI) and sync (3% of revenues) and in our view will be impacted in the near term by **lower distributions from public venues and broadcasters**. Performance rights royalties are paid for the use of recorded music by broadcasters and public venues (internet/ satellite radio, public devices, etc.) either directly or through SoundExchange in the US. However, artists/labels only get paid for digital performances in the US (e.g. satellite/online radio, interactive streaming services), and not by terrestrial radio as antiquated US legislation exempts terrestrial broadcasters from paying royalties for the use of the master recording. Meanwhile, sync revenues are generated from the use of recorded music in advertising, films, games and TV and could be impacted by weaker advertising demand.

We forecast 0.5% growth for performance and sync right royalties in 2020, with the weakness in live & public performances as well as weaker advertising partly offset by resilient growth in films, games and TV shows. For more details, please see Music Publishing: diversification drives steady growth.

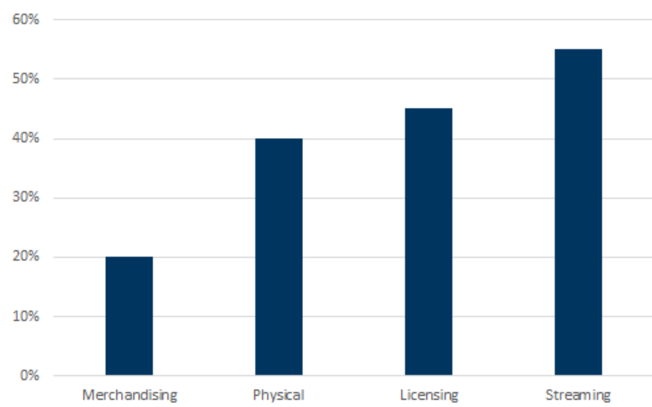
Driver # 4: Merchandising to be severely hit from lack of touring

Our **global recorded music estimates do not include merchandising revenues** (as per IFPI definition), although we note **most record labels engage in such activities**. For UMG, merchandising (mostly conducted through its subsidiary Bravado) accounted for c.7% of 2019 revenue and derived most of its revenue from product sales in live tours, retail outlets and e-commerce channels. We expect merchandising revenues from touring and physical retail to be significantly impacted by the cancellation and postponement of live events as well as near-term store closures, while online sales should continue to growth strongly, benefiting from increased promotional activity via artist live-streaming and social media. We also note examples of the industry adapting, such as UMG's Bravado now selling branded face masks (WSJ, May 2, 2020). Overall, with the smaller merchandising companies likely to find it relatively financially harder in the 2020 summer with no live music, we see this as an opportunity for the larger, better-resourced players in merchandising to take share.

Driver # 5: Margins can continue to grow in 2020

In our forecasts, we assume record labels should be able to sustain margin expansion this year, even amid COVID-19 given the **favourable profit mix shift away from merchandising** (typically c.5-10% EBITDA margin) **and physical** (15ppt lower gross margin than streaming given higher production and distribution costs) **towards streaming**. We also estimate record labels have a **50/50 fixed/variable cost** base and will be able to generate significant cost savings in the areas of **travel and entertainment, marketing and promotion.**

Exhibit 60: We estimate that Merchandising and Physical are lower margin segments for record labels
Gross margins, 2019



Source: Goldman Sachs Global Investment Research

Long-term structural growth intact for record labels

We believe the recorded music industry will continue to benefit from secular tailwinds such as technological innovation, shift in consumer preferences from ownership to access particularly amongst Gen Z/ Millennials, greater government intervention to curb piracy and improved monetisation rates for the content owners as well as new licensing opportunities from new formats (e.g. short form videos/ fitness apps). Meanwhile, the adoption of paid streaming services is still underpenetrated compared to other forms of entertainment and particularly in emerging markets. We thus expect the recorded music market to reach c.US$45 bn by 2030 on the back of 1.2bn paid subscribers in 2030.

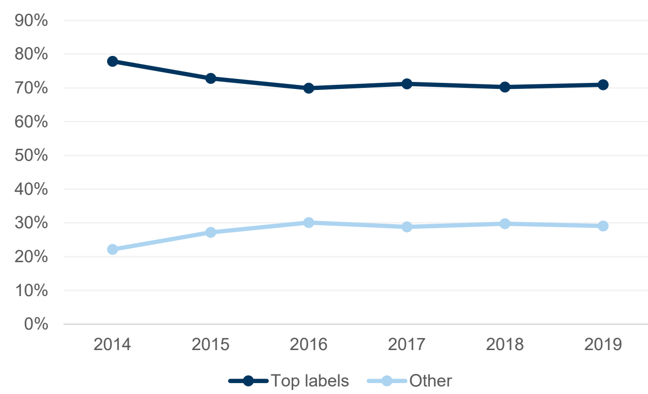
Record labels continue to play an essential role in the value chain

Record labels play an essential and integral role in the discovery and development of recording artists and the related marketing, promotion, distribution, sale and licensing of music created by such recording artists. We believe **many of the record labels' functions will be significantly impacted by the disruptions related to COVID-19** with more limited production capabilities and artist discovery channels as well as lack of promotion support from touring, TV shows and billboard adverts. This will **further increase their reliance on social media and streaming services for the discovery**

and promotion of artists (we estimate two-thirds of labels' marketing budgets are still offline), while we also expect them to **step up their D2C efforts in physical and merchandising sales** to partly mitigate the near-term drop in revenues in those segments. We also believe labels and their artists may look to further exploit revenue opportunities from **live streaming of events**, although the overall financial benefit will likely be small. See later section Live Music: on the starting blocks.

Despite concerns around the rise of DIY artists and alternative music companies, **our analysis of market share data shows that the major labels further consolidated their leadership position in 2019 with 70bp share gains.** UMG remains the leader by far and took share for the third consecutive year in 2019, up 60bp yoy to 31.2%. Sony Music lost market share in 2019 for the fifth consecutive year (although we note 2018 revenues were negatively impacted by a change in accounting for physical sales), down 30bp yoy to 20.6%. **We expect large players could strengthen their competitive position this year, given the strength and depth of their catalogues**, while we believe they will continue to invest in A&R and catalogue to support future growth.

Exhibit 61: The top labels' market share increased by 70bp to 70.9% in 2019
Record labels' market share



Source: IFPI Global Music Report 2020, Company data

Record labels are the largest beneficiaries of the growth in paid streaming

As discussed in the previous section *Streaming: on the track to reach 1.2bn paid users by 2030E*, we see significant growth opportunity for paid streaming driven by ongoing penetration growth in both DM and EM and improved pricing. According to IFPI, global paid music streaming subscribers totaled 341 million at the end of 2019. This represents less than 8% of the 3.2 billion smartphone users globally, and a small fraction of the user bases for large, globally scaled digital services such as Facebook (2.7 billion MAUs) and YouTube (2 billion MAUs).

With record labels typically receiving the largest share of payment from streaming services, with royalty rates of 52%-58% (average 55%), we believe the record labels are the largest beneficiaries of the growth of music streaming. **The top 4 record labels drove 82% of music listening on Spotify last year**, according to Spotify, which implies they would therefore receive a disproportionately higher share of Spotify's royalty pool.

We **do not foresee a major change in royalty rates in the near term given the competitive dynamics in the recorded music and streaming market** as discussed above. We believe record labels will have a vested interest in keeping a minimum level of competitive tension among platforms. Over time, we believe major labels' artist discovery, curation, and marketing capabilities and high market share concentrations should allow them to defend the status quo in future negotiations. That said, we believe streaming platforms will be able to increasingly leverage the vast amount of user data to cut better deals with labels over time. Spotify renegotiated its licensing agreement with two labels including Merlin last year, while the negotiation with UMG is still pending and press reports (MBW, July 31, 2019) suggests its renegotiation with Sony Music isn't due until another couple of years.

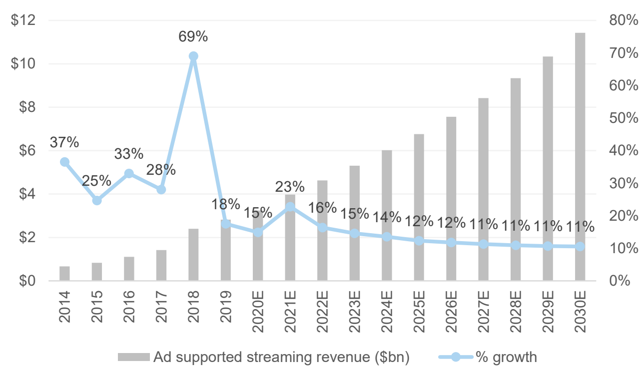
As such, we forecast paid streaming revenue (record label share) to reach US$27.0 bn by 2030, from US$8.5 bn in 2019, implying 11% revenue CAGR.

Ad-funded streaming to benefit from strong consumption growth and improved monetisation

While ad funded streaming revenue could be impacted by **weaker advertising demand** in the near term, we believe this can be more than offset by the **surge in music video views on platforms such as YouTube, Vevo and TikTok** - those services would have disproportionately benefited in our view from people staying at home and preferring watch music videos. Over time, we see **significant upside from improving monetisation of such music videos** as opposed to paid audio streams with the **average royalty rate per video stream currently 3x lower than audio in the US**. The **YouTube "Value Gap" still exists and is significant, but we are encouraged by the improved royalty rates paid by YouTube over the last year or so**, which we see as the evidence of an improved relationship between the music content owners and YouTube as well as a more favourable regulatory environment. Further, we believe the **record labels currently generate very little revenue from TikTok** (which is currently included in licensing revenue rather than ad-funded) and see scope for significant upside in future renegotiations given the success of the platform. **Overall, this leads us to raise our ad-funded streaming revenue estimates by 13% over 2020-30E to reach US$11.4 bn**.

Exhibit 62: We expect ad-funded streaming revenues for record labels to grow at an 11% CAGR over 2020-30 to reach US$11.4 bn in 2030

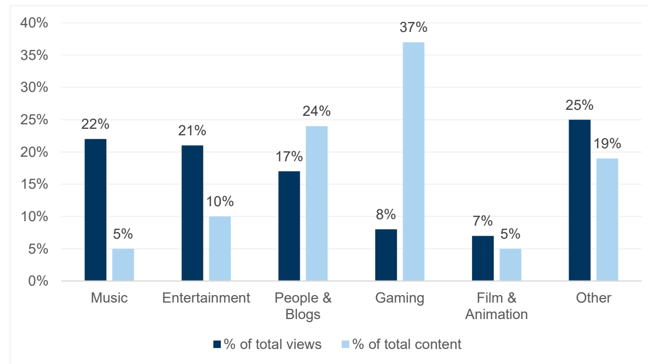
Ad-funded streaming revenues, 2014-2030E (record label share, $bn)



Source: IFPI Global Music Report 2020, Goldman Sachs Global Investment Research

Exhibit 63: Music accounts for 22% of total views and 5% of content on YouTube

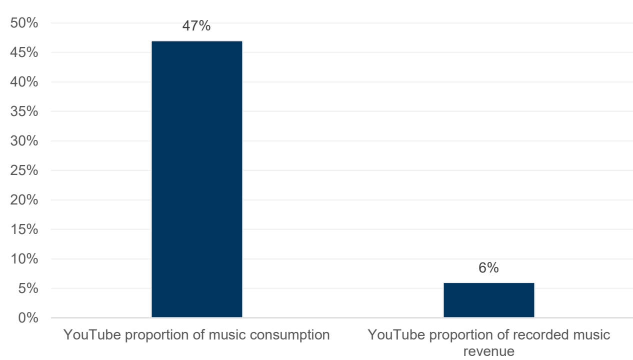
YouTube - share of total views and content by category, 2019



Source: Pex, Music Business Worldwide

Exhibit 64: YouTube accounts for 47% of music streaming consumption vs. 6% of recorded music revenues

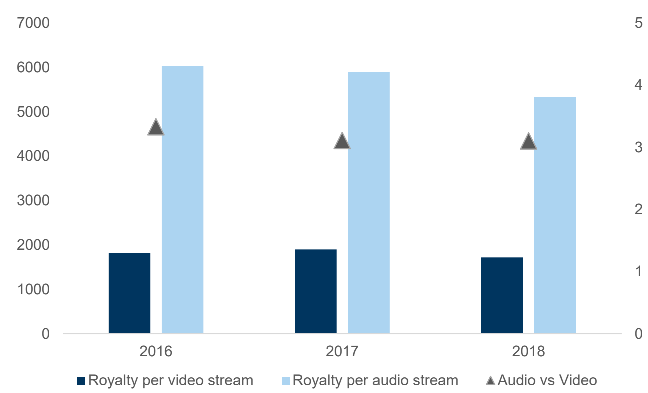
YouTube as % of streams vs % of recorded music revenues, 2019



Source: IFPI, Trade Press, Goldman Sachs Global Investment Research

Exhibit 65: Video streaming monetisation is still 3x lower than Audio

Royalty per million streams in the US - video vs audio (ad funded + subscription)



Source: Nielsen MRC, Goldman Sachs Global Investment Research

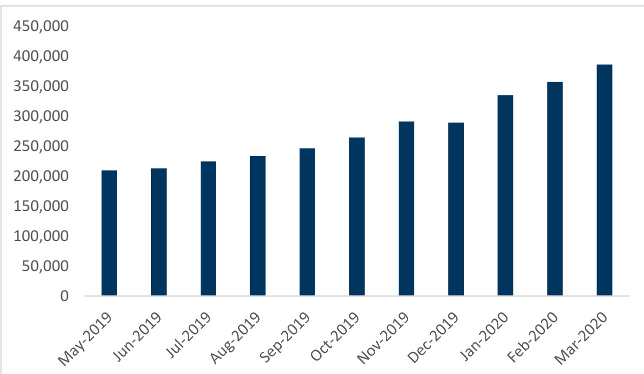
Emerging opportunities for music licensing, e.g. short-form video, e-fitness

While the traditional $9.99 / month on-demand subscription model continues to dominate much of the growth in music industry revenue, we are seeing new ways in which companies and record labels are monetizing music in sync with technological innovation.

Short-form music and music-based video content has grown quickly, driven by the growth of global social video applications such as TikTok, which features 15-second videos often set to music. TikTok has reportedly been downloaded more than one billion times since its launch in 2017 and has a global reach of nearly 400 million monthly unique visitors, spending over 10 minutes per day on the platform (per comScore). These platforms enable incremental consumption of music appealing to varied, and often younger, audiences, while presenting the potential to amplify artists and set cultural trends — a trend that is accelerating through the COVID-19 crisis. This could also act as lead generation for Tik Tok's recently launched music app Resso, which describes itself as a social music streaming app (available in India as of March). We note that at least five of the current top ten songs on Spotify have spawned popular user-generated video formats on TikTok (e.g. the Blinding Lights dance set to The Weeknd's hit song), which we believe both increases fan engagement with a song and expands a song's reach, perpetuating its popularity.

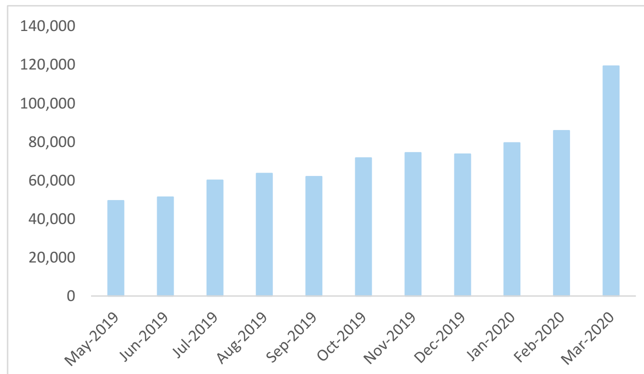
In connected fitness, Peloton's >1 million connected fitness subscribers and >2 million members are able to listen to classes on-demand, and Peloton's record label relationships allow the company's instructors to use a broad diversity of music in distributed recordings.

Exhibit 66: Tik Tok Worldwide Monthly Unique visitors
In thousands, mobile app



Source: comScore

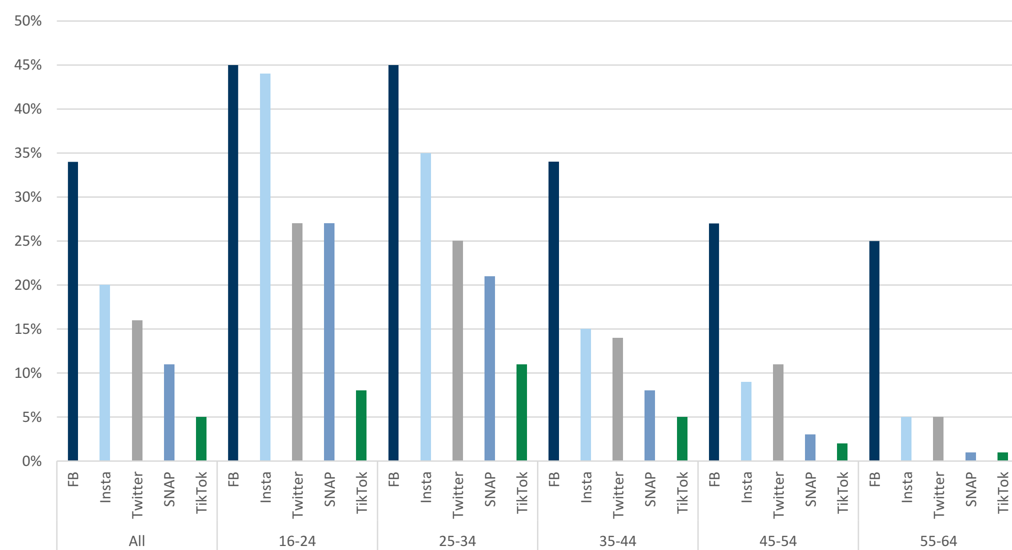
Exhibit 67: Tik Tok Worldwide Monthly Minutes in aggregate
In millions, mobile app



Source: comScore

Music content has also become increasingly popular on social media platforms such as Facebook and Instagram, further illustrating the growing number of potential pathways through which recording artists may gain consumer exposure and ways a record label can monetise music. According to the IFPI Music Consumer Study 2019, 45% of 16-24 year olds in the UK said they had viewed or listened to music on Facebook and Instagram in the past month while nearly half of 25-34 year olds reported having consumed music on Facebook. The same study reveals a variety of reasons for using social media for music including keeping up to date with artists, watching music videos and discovering new music. We note that Facebook signed a music licensing deal with the major labels and publishers at the end of 2017/ early 2018 for the first time to allow users to include music in their personal videos. We see upside from future renegotiations given the strong user engagement data.

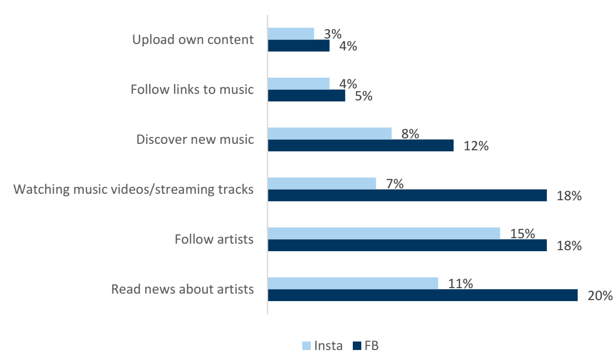
Exhibit 68: 45% of 16-24 year olds in the UK have listened to/ watched music on Facebook/ Instagram in the past month
Music listening/watching on social media - monthly penetration, 2019



Sample size = 34,000

Source: BPI, IFPI Music Consumer Study 2019

Exhibit 69: People report using social media to keep up to date with artists, watch/ listen to music and discover new music
% survey response



Sample size = 34,000

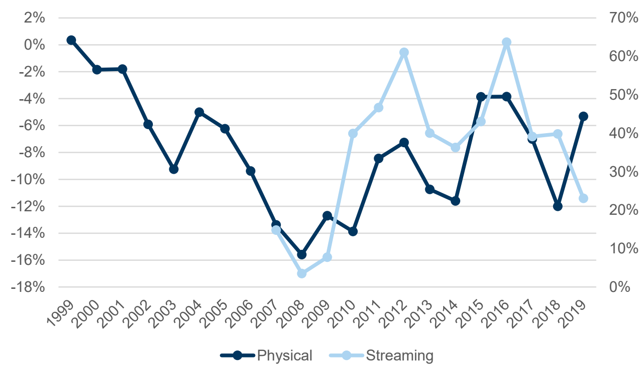
Source: BPI, IFPI Music Consumer Study 2019

The resilience of vinyl sales may help the physical market stay afloat

We believe that the COVID-19 crisis may contribute to further accelerate the shift from CD to digital, as seen in previous recessions, especially amongst the older demographic. While the acceleration in physical revenue decline will have a near-term impact on industry revenue, with every 10ppt decline impacting our global recorded music revenue growth forecast by 2ppt, we expect this shift will benefit the industry over the long term as streaming offers a recurring stream of revenues as opposed to the transactional, hit driven nature of CDs and commands a higher gross margin. That said, we note that **sales of vinyl recordings may continue to benefit from the growth of collectors and hobbyists**, while a major physical market such as **Japan (accounting for c.50% of global physical sales) will remain culturally more accustomed to buying and gifting physical music** in our view. Interestingly, we find that the **rate of decline in physical sales has actually improved in the past five years** (average decline of -6% compared to -10% in 2010-2014) despite the surge in streaming revenue (average growth of >40% in the last 5 years).

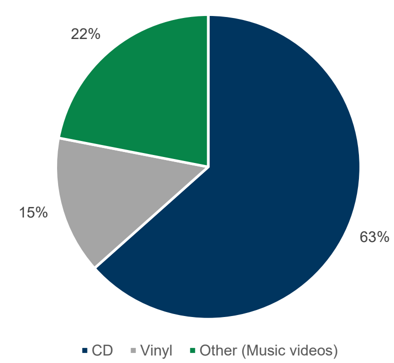
Overall, **we model physical music revenues declining from US$4.4 bn in 2019 (22% of total recorded music revenues) to US$3.3 bn in 2020 (16% of total revenues) and US$1 bn in 2030 (2% of total revenues).**

Exhibit 70: The surge in streaming does not seem to have accelerated the rate of decline in physical sales
Global physical sales % growth (LHS) vs Streaming % growth (RHS)



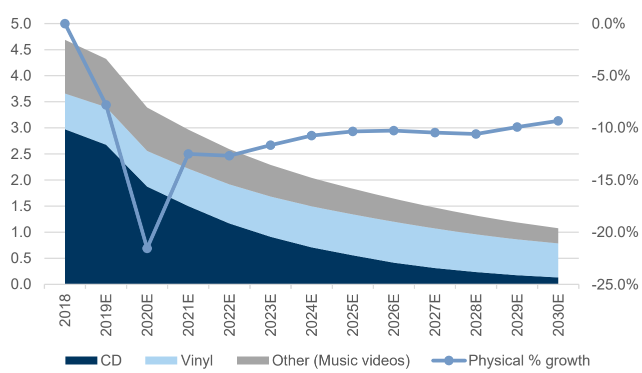
Source: IFPI Global Music Report 2020

Exhibit 71: CDs account for 71% of total physical sales
Physical music sales by format, 2019



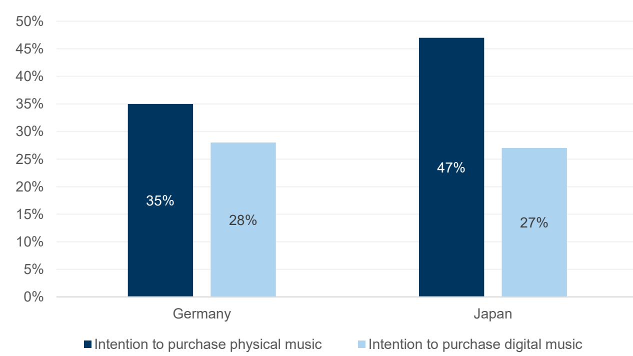
Source: IFPI Global Music Report 2020

Exhibit 72: We expect CD sales decline to accelerate while music videos (o/w 90% is Japan) and vinyl should remain more resilient
Global physical music sales ($bn)



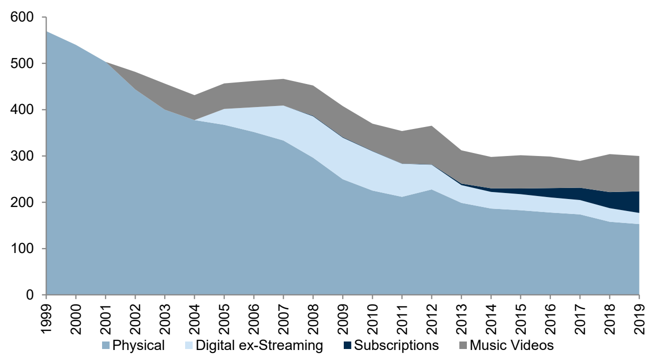
Source: IFPI Global Music Report 2020, Goldman Sachs Global Investment Research

Exhibit 73: Physical music remains popular in both Germany and Japan
% of respondents - intention to purchase music by format, 2019



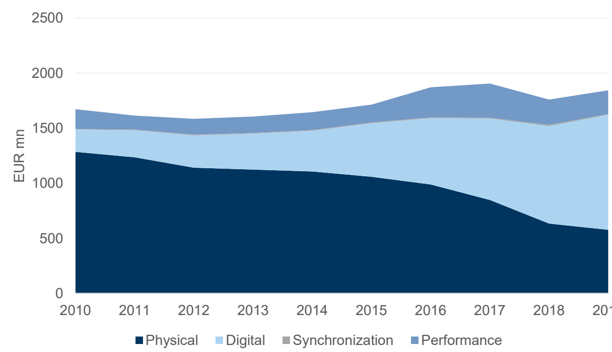
Source: Nielsen

Exhibit 74: Streaming revenue has ticked up in Japan but is still only 15.5% of total recorded revenue, while Physical + Music Videos account for 76%
Japan recorded music market (JPY bn)



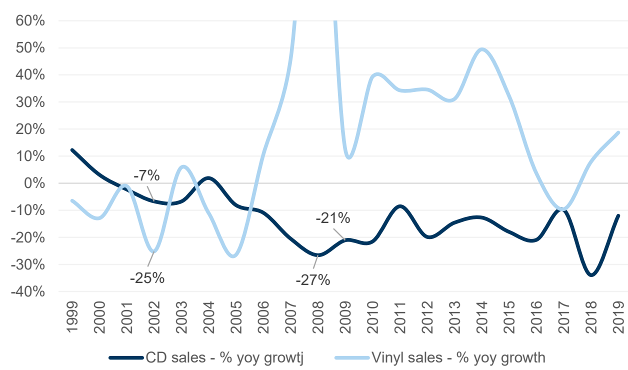
Source: RIAJ

Exhibit 75: In Germany however Digital has overtaken Physical since 2018
Germany recorded music market (EUR mn)



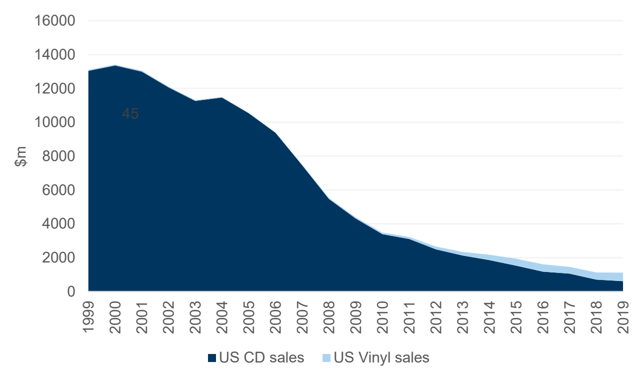
Source: BVMI

Exhibit 76: Vinyl has been growing in the US since 2007...
US CD vs Vinyl sales - % yoy growth



Source: RIAA, Goldman Sachs Global Investment Research

Exhibit 77: ... and now accounts for 44% of US physical sales
Cumulative US CD and Vinyl sales ($m)



Source: RIAA, data compiled by Goldman Sachs Global Investment Research

Upside from regulatory intervention

European Union Copyright Directive. In 2019, the EU passed legislation (Article 13) which will reign in safe harbors from liability for copyright infringement and rebalance the online marketplace with the aim of ensuring that rights holders and recording artists are remunerated fairly when their music is shared online by user-uploaded content services such as YouTube. While we do not expect a meaningful impact in the near term, with national implementation of Article 13 expected before June 2021, we believe such legislation could improve the bargaining power of content owners in future negotiations. We note that YouTube monetisation has already improved in the last year or so through the launch of their paid streaming service YouTube Music, while YouTube has also taken steps such as making continuous improvements to its Content ID platform as well as giving copyright holders the option to block content by creators where there is use of their music for a short period of time which is not picked up by Content ID.

Music Modernization Act. In 2018, the passing of the MMA in the United States resulted in the provision of a public performance right for pre-1972 sound recordings streamed on digital radio services such as SiriusXM and Pandora.

Performance royalties on US terrestrial radio. The US is one of the very few markets in the world where record labels and artists do not get paid performance royalties when their music is played on AM/ FM radio stations (while songwriters and music publishers do). Legislation has been introduced over the years (e.g., Fair Play Fair Pay Act 2015/17, Ask Musicians for Music Act 2019) to require radio stations to get consent from / remunerate recorded artists to play their music, although these failed to gain enough traction. While we take no view on the probability of such legislation passing, we note that as an indication of the significance of such revenue stream, the US radio market is worth US$16.7 bn of advertising revenues and music publishers receive just under US$1 bn of performance royalties from broadcast (including radio), which account for 30% of their revenue (source: NMPA).

Margin expansion from shift in profit pools

The potential expansion of the profit pool is even more meaningful as labels generate higher margins in digital where the cost of manufacturing, distribution, inventory and returns is removed. We estimate that **labels currently generate around 15% EBITA margins in both streaming and download compared to 8% in physical.** Over time, we believe **streaming margin could grow to 20%-25%** given (1) **more cost-effective marketing**, (2) **higher profitability of catalogue sales** where development and marketing costs are lower than new releases, and (3) **ongoing adaptation of the cost structure** to a streaming world (conversion of fixed to variable costs, IT system upgrades enabling greater efficiencies, etc.). Partly offsetting these, we expect a greater redistribution of profits to artists over time. We estimate artists and repertoire costs currently account for c.30% of labels' revenue, having already risen significantly in the last few years (17% in 2015, 24% in 2017) as the music market returned to growth.

Exhibit 78: The shift from physical to paid streaming is revenue and margin accretive for record labels
Illustrative unit economics by music consumption format

Physical		
Average spend per person	$ 55.0	
VAT	$ 8.3	
Net revenue	$ 46.8	
o/w		*% of net revenue*
Distributor share	*$ 15.4*	***33%***
Record label share	*$ 31.3*	***67%***
Record label costs		% of record revs
Pay away to publishers	$ 4.7	15%
Artists & Repertoire	$ 9.4	30%
Production & Distribution	$ 3.1	10%
Other	$ 1.6	5%
Gross margin	**$ 12.6**	**40%**
Marketing	$ 4.7	15%
G&A	$ 4.8	15%
EBITDA Margin	**$ 3.0**	**10%**
Depreciation	$ 0.63	2%
EBITA Margin	**$ 2.4**	**8%**

Streaming - subscription		
Average spend per person	$ 120.0	
VAT	$ 18.0	
Net revenue	$ 102.0	
o/w		*% of net revenue*
Distributor share	*$ 33.7*	***33%***
Content owner share	*$ 68.3*	***67%***
Publisher share	$ 12.2	**12%**
Record label share	$ 56.1	**55%**
Record label costs		% of record revs
Artists & Repertoire	$ 16.8	30%
Production & Distribution	$ 2.8	5%
Other	$ 5.6	10%
Gross margin	**$ 30.9**	**55%**
Marketing	$ 8.4	15%
G&A	$ 8.4	15%
EBITDA Margin	**$ 14.0**	**25%**
Depreciation	$ 1.12	2%
EBITA margin	**$ 12.9**	**23%**

x5.5

Source: Company data, Goldman Sachs Global Investment Research

Exhibit 79: We estimate a range of 18-38% EBITA margin in streaming
Illustrative unit economics in paid streaming

Streaming - subscription		
Average spend per person	$120	
VAT	$ 18.0	
Net revenue	$102	
o/w		% of net revenue
Distributor share	$34	**33%**
Content owner share	$68	**67%**
Publisher share	$12	**12%**
Record label share	$56	**55%**
Record label costs		% of record revs
Artists & Repertoire	$14-$28	25%-45%
Production & Distribution	$2.8	5%
Other	$2.8	5%
Gross margin	**$25.2-$36.5**	**40%-65%**
Selling & Marketing	$8	15%
G&A	$6	10%
EBITDA Margin	**$11.2-$22.4**	
Depreciation	$1	3%
EBITA margin	**$9.8-$21**	**18%-37.5%**

Source: Company data, Goldman Sachs Global Investment Research

Exhibit 80: Shift towards greater catalogue consumption is margin accretive for record labels
Illustrative unit economics of new releases vs catalogue sales

	New releases	**Catalogue**
Revenue	100	100
Artist royalties	-30	-30
Marketing costs	-15	0
Physical costs	-10	-10
Distribution fees	-10	-10
G&A	-15	-15
Total costs	-80	-65
EBITDA margin	**20**	**35**

Source: Goldman Sachs Global Investment Research

Music Publishing: Diversification drives steady growth

Global music publishing forecasts

Music Publishing companies engage in the promotion, placement, marketing and administration of musical compositions of which they own/share the rights with songwriters. They receive royalties or fees for the use of those compositions, including mechanical, public performance and synchronisation royalties. The music publishing market has historically been more resilient than recorded music given the **diversity of income sources** and notably the **higher exposure to performance and sync royalty income streams** (>50% of revenues) which have benefited from the growing use of musical compositions in films, adverts, video games, live performances, etc.

Looking ahead, we see a **number of secular tailwinds supporting resilient growth** in publishing such as:

(i) strong growth of paid streaming fueling growth in digital mechanical and performance royalties;

(ii) secular growth in live performances, movies and TV shows driving performance and sync royalty income streams;

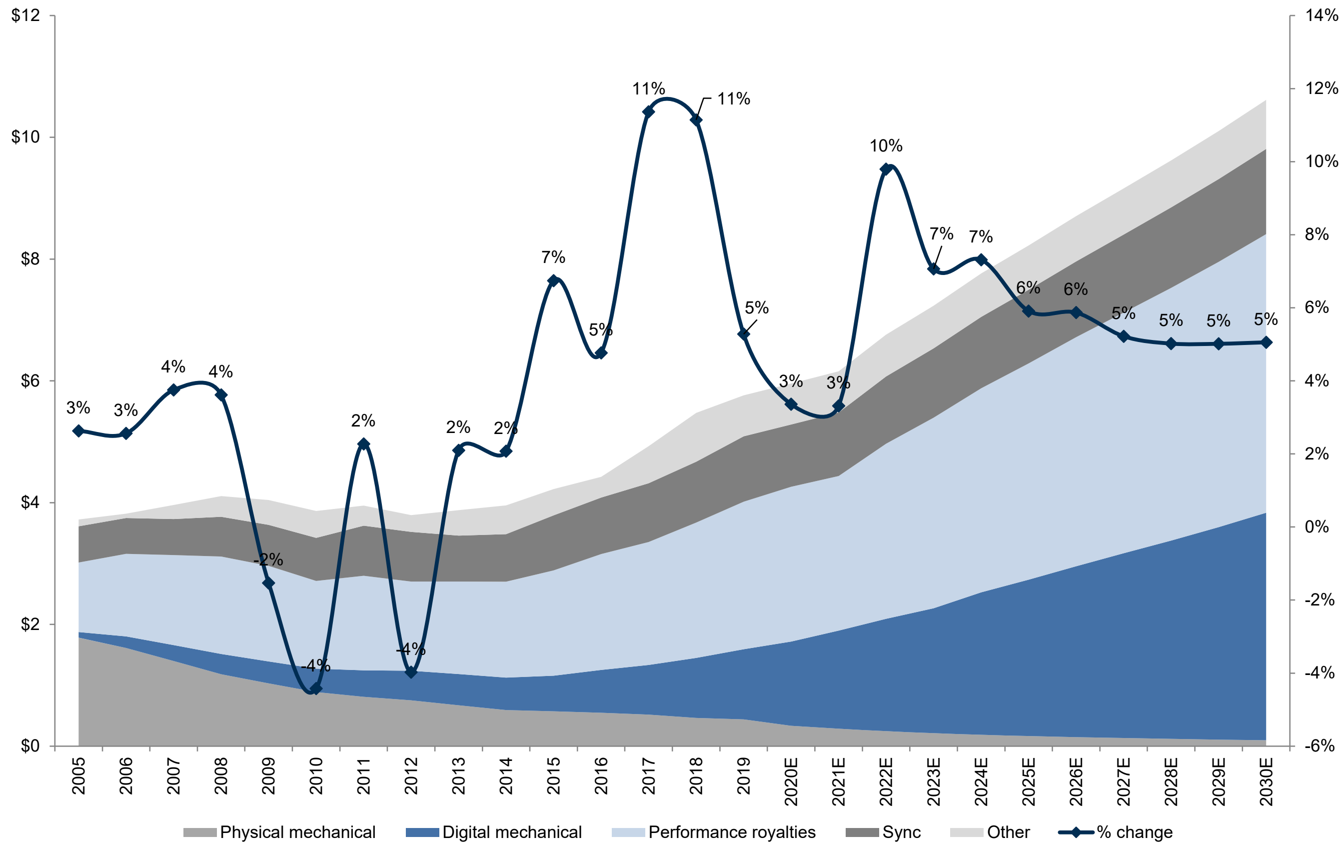
(iii) positive regulatory developments driving greater monetization rates particularly for mechanical streaming royalties; and

(iv) licensing opportunities from new formats (e.g. short form videos, e-fitness), with the NMPA claiming that 50% of the publishing market is currently unlicensed with TikTok.

That said, we expect music publishing to post a lower growth rate than its sister industry given the lower exposure to streaming (c.30% of music publishing vs. 55% of recorded music). Meanwhile, **publishers receive c.10-15% royalty rates from the DSPs**, compared to 52-58% for record labels, although we note that these rates have improved over time helped by favourable regulatory developments. As such, we **forecast the music publishing market to grow at a CAGR of 6% 2019-2030 to reach c.US$11 bn by 2030.**

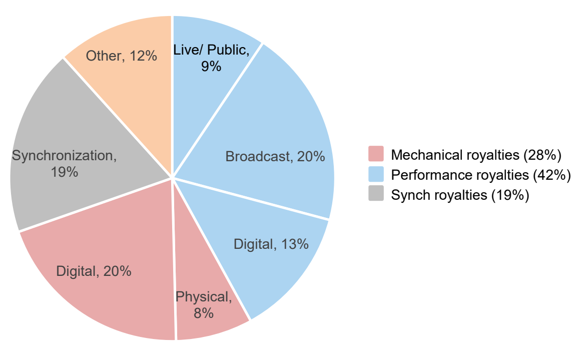
Nearer term, we believe music publishers will be impacted by the disruptions related to COVID-19 particularly within physical mechanical and live performance royalty income streams, which account for c.20% of revenue. However, the timing of royalty collection and payment means that the industry will likely see a **6-12 month delayed impact**. We therefore **reduce our forecasts for the publishing market from c.8% to c.3.5% growth in both 2020 and 2021** to reflect such impact.

Exhibit 81: We forecast the music publishing market to grow at a CAGR of 6% 2019-2030 to reach c.US$11 bn by 2030
Global music publishing market revenue ($bn) and % growth



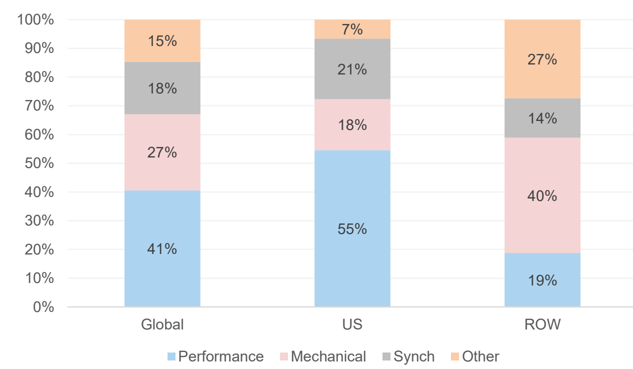
Source: Music & Copyright, OMDIA, Company data, Goldman Sachs Global Investment Research

Exhibit 82: Music publishers have diverse income streams falling into 3 main categories: performance, mechanical and sync
Publishing revenue breakdown, 2019



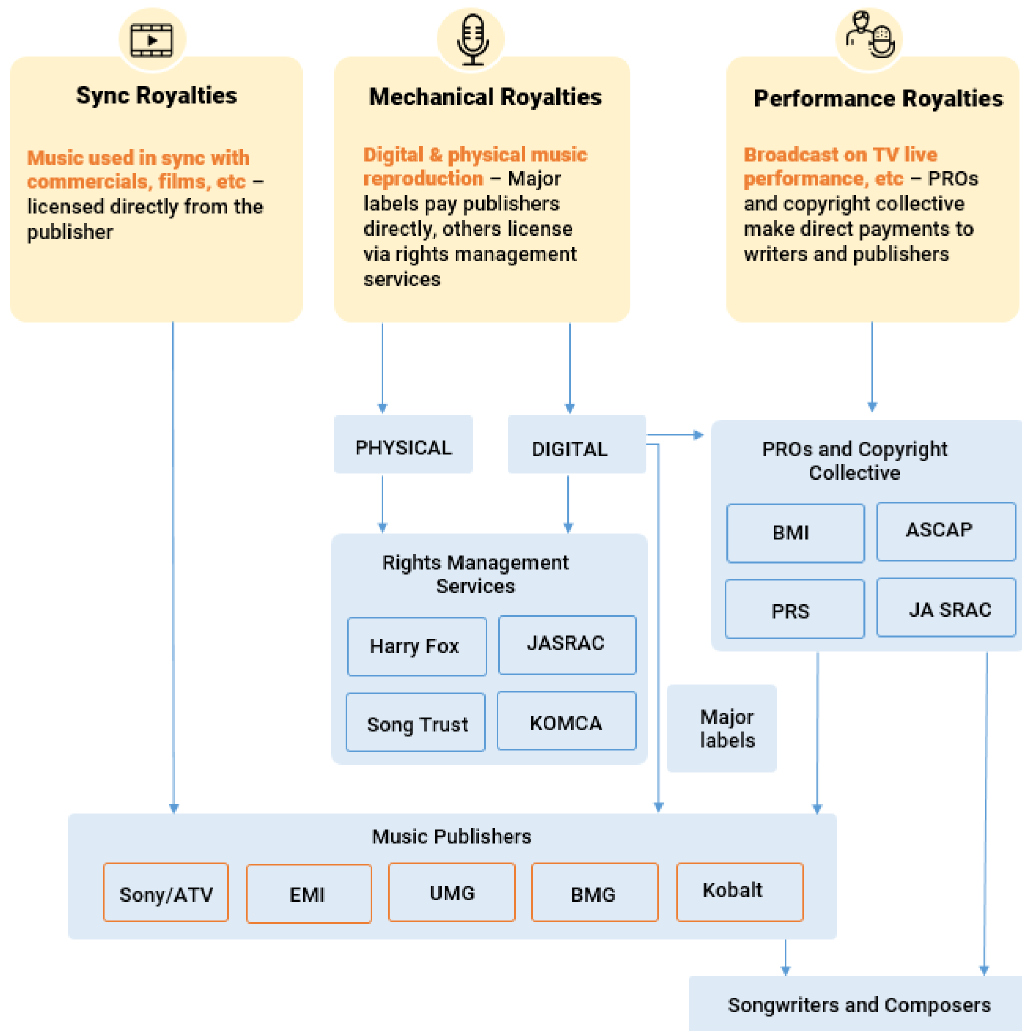
Source: Goldman Sachs Global Investment Research

Exhibit 83: Publishing revenue mix varies significantly by market
Music publishing revenue breakdown - Global, US and ROW, 2018



Source: NMPA, Goldman Sachs Global Investment Research

Exhibit 84: Music publishing royalties flow through a complex ecosystem
Music publishing royalty flows



Source: Goldman Sachs Global Investment Research

Exhibit 85: Timing of royalty collection and payments varies significantly with a typical 6-12 months lag
Description of publishing royalty streams

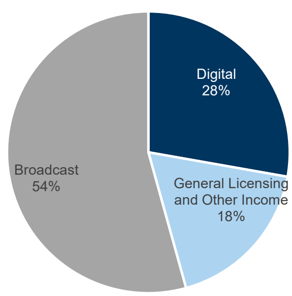
Royalty type	Description	% of Music Publishing revenues	Performance period most affected by COVID-19	Payment lag to publishers	Timing of impact on publisher revenues
Performance		**42%**			
Live/ Public		*9%*	*March, 2Q-4Q 2020*	*6 months*	*3Q 2020 - 1H 2021*
Broadcast	Music used in live performances, bars/restaurants,	*20%*	*2Q-3Q 2020*	*6 months*	*4Q 2020 - 1Q 2021*
Digital	broadcasts on radio/TV or streamed on-demand	*13%*	*March, 2Q-4Q 2020*	*12 months*	*3Q 2020 - 1H 2021*
Mechanical		**28%**			
Physical	Music is licensed (CD or vinyl) or streamed on-	*8%*	*March, 2Q-3Q 2020*	*6 months*	*3Q 2020 - 1Q 2021*
Digital	demand.	*20%*	*1Q-3Q 2020*	*1 month*	*2Q-4Q 2020*
Synchronization		**19%**			
Ads	Usage of music in coordination with movies,	*9%*	*March, 2Q-4Q 2020*	*3 months*	*3Q 2020 - 1H 2021*
TV, movies, games	advertisements, TV shows or videogames	*9%*	*March, 2Q-4Q 2020*	*3 months*	*3Q 2020 - 1H 2021*
Other	Newspapers, magazines etc	**12%**	*2Q-3Q 2020*	*6 months*	*4Q 2020 - 1Q 2021*

Source: ASCAP, BMI, Company data, Goldman Sachs Global Investment Research

Performance royalties (c.40% of industry revenue)

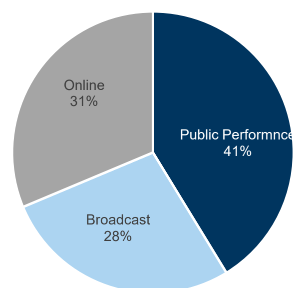
Performance royalties are owed whenever a song is performed in public, broadcast or streamed, and represent the largest source of income for music publishers, at around 40% of revenues. Those royalties are generally paid to songwriters/publishers through Performance Rights Organizations (PROs) and collection societies, with > 6-month lag. In the US, around 30% of domestic performance royalties are derived from online streaming services, 50% from broadcast (TV, radio, cable) and 20% from public use in bars, restaurants, etc. on our estimates. In Europe, royalties are roughly equally split between live, broadcast and streaming.

Exhibit 86: Performance rights organisation BMI generates more than half of its US royalty revenues from Broadcast with 28% from online
BMI domestic (US) revenue breakdown, 2019



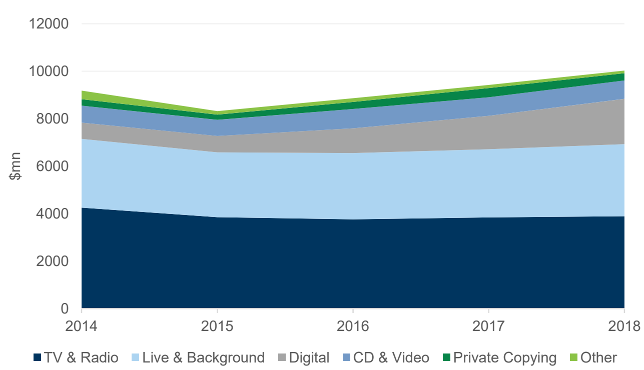
Source: BMI

Exhibit 87: PRS in the UK collects 40% of its royalty revenues from public performance with 31% from online
PRS for Music domestic royalty revenues split (UK) - mechanical + performance, 2019



Source: PRS for Music

Exhibit 88: CISAC derives c.70% of its collections from Broadcast and Live, with 19% from Digital
CISAC Global Music Collections (performance, mechanical and other), 2014-19

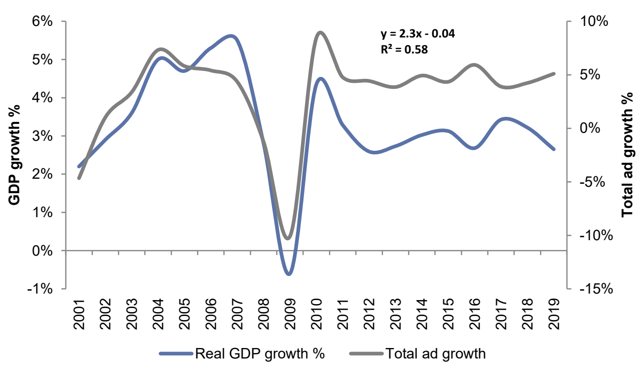


Source: CISAC

Near term, we expect royalties from **public performances** to be severely impacted by restaurant/ bar closures and cancellation/ postponement of live events amid COVID-19. For the live music market, we forecast a 75% fall in revenue in 2020, assuming no revenue in 2Q and 3Q and a 50% yoy decline in 4Q (for more details please see later section Live Music: on the starting blocks). Given the timing of collection and payment, we believe the impact on publishing revenues will only be seen through 4Q 2020-1H 2021. BMI has for instance stated that it does not expect to see an impact on its distributions in July-Dec 2020, but will see an impact in Jan-June 2021 (Billboard, April 6, 2020). Longer term, we forecast c.5% growth in public performance royalties mainly driven by the growth in the live music sector.

Royalties from **broadcasting** could also be impacted by falling TV / radio advertising revenues in the near term with advertising spend typically presenting a relationship of 2-3x GDP. Longer term we expect those royalties to decline in the low single digit % given the secular decline of TV/ cable/ radio usage.

Exhibit 89: The advertising market tends to be driven by overall economic activity
Global ad growth vs real GDP growth



Source: MAGNA Global, Goldman Sachs Global Investment Research

Digital performance royalties should continue to grow strongly - in 2020 and beyond - driven by the growth on video/audio streaming consumption and new licensing opportunities with players like TikTok. The National Music Publishers Association - the industry trade body representing music publishers in the US - recently claimed that 50% of the publishing market was being unlicensed with TikTok and threatened to sue the platform over copyright infringement (FT, April 4, 2020).

Overall, we expect performance royalties to grow 5% in 2020 with flat growth in 2021. Going forward, we expect performance royalties to grow at 6% per annum, mostly driven by growth in on-demand streaming and live concerts.

Mechanical royalties (c.28% of industry revenues)

Mechanical royalties are paid to publishers/ songwriters whenever a song is manufactured onto a CD, downloaded on a digital music site or streamed through a service such as Spotify, overall accounting for c.28% of publishing revenue. These are paid by the record label to the publisher (either directly or through a third party organization such as Harry Fox Agency in the US). In the US, royalty rates are set by the government through a compulsory license and are 1) either calculated on a penny basis per song for physical/download or 2) based on a formula for interactive streaming services. In most countries outside of the US, royalties are based on percentages of wholesale/consumer prices for physical/digital products respectively and negotiated on an industry-wide basis.

We expect **physical** mechanical royalties (c.25-30% of mechanical royalties) will be significantly impacted from shop closures and postponement of new releases in the near term and will continue to decline over time in line with the overall decline in physical sales. **Digital** mechanical royalties (70%-75% of mechanical royalties) should however continue to grow strongly in line with the overall streaming market, with additional licensing opportunities in short form videos or e-fitness. Overall, we expect mechanical royalties to grow 8% in 2020, 10% in 2021 and 8% 2022-30.

Sync royalties (c.20% of industry revenues)

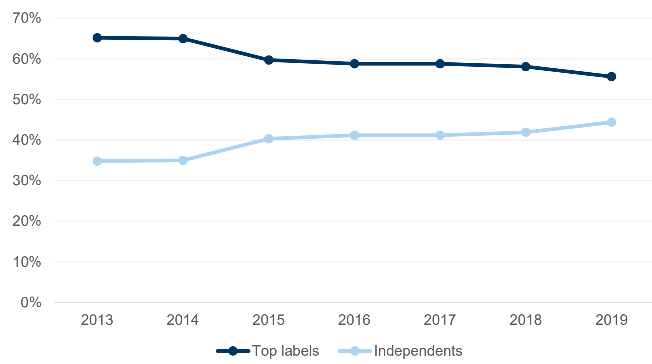
Synchronisation or "sync" royalties are paid to songwriters/publishers for use of a song as background music for a movie, TV programme, TV advert, video game, toy and novelty item and account for c.20% of music publishing revenue. There is no explicit rate that defines the compulsory percentage of royalty that must be paid. This will mostly depend on the commercial value of the work to those who want it and on the media to be used. Sync royalties are usually equally split between labels, artists, publishers and songwriters.

Nearer term, we believe revenues from the use of such musical compositions in TV ads will be the most impacted from weak advertising demand, however revenues from the use in movies, TV shows and video games should be more resilient given the demand for content in the current environment. Given the one quarter lag in revenue recognition, we expect to see declines in sync revenues from 2H2020. Overall, we expect sync royalties to decline 5% in 2020, with a return to growth at +2% in 2021. From 2022 onward, we expect sync royalties to **grow by c.3-4%** in line with the forecasted overall blended average growth in TV/film production, TV advertising and gaming markets.

Market share matters especially in digital

As in recorded music, market share is an important driver of songwriting royalty payment from the DSPs, with digital representing one of the fastest growing revenue streams and now accounting for c.30% of publishers revenue. The majors have lost some share since 2015 (the decline in 2015 vs 2014 was related to M&A) but still command 56% market share. We believe the top publishers could gain share this year given the shift of consumption towards catalogue and more diversified revenue streams.

Exhibit 90: The top labels' share in music publishing declined by 2pp to 56% in 2019, mainly due to Sony
Music Publishing market share



Source: Music & Copyright, OMDIA, Goldman Sachs Global Investment Research

Upside from regulatory developments

We expect music publishers to benefit from further positive regulatory announcements in the coming years which should drive improved monetisation of music content, particularly for mechanical and performance royalties (although we believe the large music publishers have entered direct deals with the major DSPs and get paid royalties that are above the statutory rates/ consent decrees).

- **Music Modernization Act.** In 2018, the passing of the MMA in the United States resulted in major reforms to music licensing. Amongst other measures, the MMA allows for the creation of a single mechanical licensing entity to track usage and collect royalties on behalf of publishers and songwriters when digital services use their work, which will improve the efficiency of the royalty collection system, thus establishing the equivalent of a SoundExchange for songwriters.
- **Copyright Royalty Board ruling on mechanical streaming rates.** In 2018, the CRB issued its determination of royalty rates and terms, significantly increasing the mechanical streaming royalty rates paid for musical compositions by on-demand streaming services (Spotify, Apple, Amazon, etc.) in the United States from 2018 through 2022. That decision is currently being appealed by some digital music services. Under the new ruling, the headline rate would increase gradually from 10.5% to 15.1% of streaming services' applicable revenues (11.4% in 2018, 12.3% in 2019, 13.3% in 2020, 14.2% in 2021 and 15.1% in 2022). While this ruling represented the largest percentage increase in rates in CRB history and follows another favourable decision from the CRB in 2017 increasing the rates paid by SiriusXM to artists and labels by 41%, we note that the major music publishers have entered direct deals with the major DSPs, and the rates paid for mechanical streaming royalties were already above the statutory rate of 10.5% at the time (we estimate on average 12%).
- **European Union Copyright Directive**. In April 2019, the EU adopted legislation which will reign in safe harbors from liability for copyright infringement and rebalance the online marketplace to ensure that rights holders are remunerated

fairly when their music is shared online by user-uploaded content services such as YouTube. EU member states have to transpose the directive into national legislation by June 2021. France was the first member state to implement this legislation in October 2019.

Live Music: On the starting blocks

Live music, having been one of the most resilient parts of the music industry in the past two decades, will be by far the most severely impacted segment from COVID-19 as concerts are postponed or cancelled. We assume no revenue will be generated until the end of 3Q with only a gradual recovery from 4Q (being a seasonally weak quarter), implying a decline in revenue of 75% for the year. We expect the industry will rebound sharply in 2021 (160%) given the large number of postponed events from 2020 and lack of major venue constraints, reaching 65% of 2019 levels. However, this will also lead to some events originally scheduled for 2021 being shifted to 2022, for which we estimate 40% growth implying a return to 94% of 2019 levels. In the near term, we believe that **artists will likely experiment with new ways of connecting with their fans and monetizing their music such as livestreaming**. Longer term we believe consumers will be eager to get back to concerts and festivals and continue to believe **Live Events is an attractive market with a number of demand and supply side tailwinds**. We expect the growth of live streaming to be more complementary than cannibalistic to the industry.

Global live music forecasts

Live music will be the most severely impacted segment of the music market as a result of COVID-19, with a number of major artist concerts as well as festivals having either been postponed into 2H 2020/2021 or cancelled entirely. Ticketmaster (owned by Live Nation), the leading global platform for primary tickets, has had 65,000 shows impacted by the virus according to the company.

While live music has been a resilient market historically, growing even during prior downturns, the nature of the current crisis leads to considerable uncertainty around timing of when live events will return and what that might look like. Even within live events, concerts and festivals are likely to be one of the last sections of the economy to return to normality given they do not have the benefit that sports events have of being able to take place without an audience present. Markets such as France and Germany have ruled out large events until after mid-July and end-August, respectively, while major artists such as Taylor Swift have canceled all tour dates for the remainder of the year. The EU Commission's recently published roadmap for a return to public life calls for concerts and festivals to only be permitted in the fourth and final phase. The city of Los Angeles is reportedly considering banning concerts, sporting events and large scale events until 2021 (LA Times, April 15, 2020).

Exhibit 91: Summary of COVID-19 impact on selected live music events

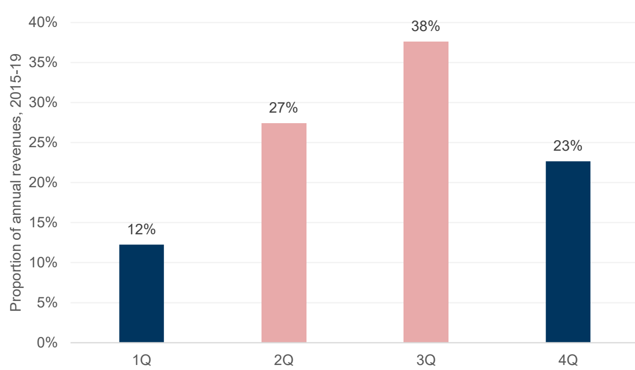
Artist/Event	Current postponement/cancelation plans
Taylor Swift	Canceled all 2020 tour dates, with US and Brazil shows to be rescheduled in 2021
Billie Eilish	North American Tour dates canceled (to be rescheduled). No announcement regarding LatAm tour commencing late May.
Elton John	Shows from March 26-July 8 have been pushed to 2021
Rolling Stones	Tour scheduled for May-July has been postponed
BTS	Rescheduling the North America leg of their world tour (which was planned to commence late April)
Primavera Sound, Spain	Moved from May to late August
Coachella, USA	Moved from April to October
Glastonbury, UK	The 2020 Glastonbury Festival scheduled for July has been canceled
Tomorrowland, Belgium	The 2020 Tomorrowland Festival scheduled for July has been canceled

Source: Press reports

Given the concerns around a second wave of infections, potential for restrictions around travel and size of events as well as availability of venues, we believe live events are unlikely to take place in 3Q as well, with only a slight recovery in 4Q. This will have a significant impact on live music revenues in 2020 given that 2Q and 3Q tend to be the busiest quarters, with Live Nation generating two-thirds of its Concert segment revenue in 2Q/3Q over 2015-2019. Overall, we expect the live music market to decline 75% in 2020.

Exhibit 92: Live Nation generates around 2/3rd of its revenues in 2Q and 3Q, which are the quarters likely to be most severely impacted by event cancellations/postponements in 2020

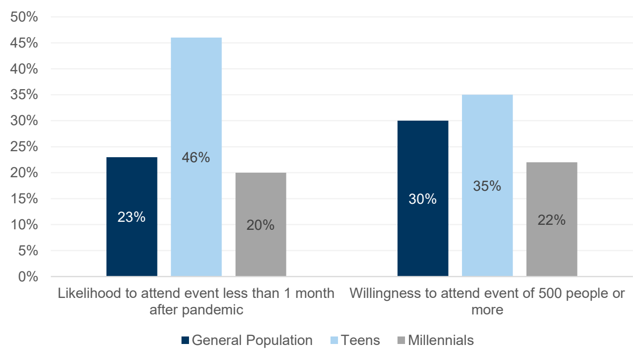
Live Nation - quarterly share of annual revenue (2015-19 average)



Source: Company data

Over time, we believe consumers will be eager to get back to concerts and festivals. We **do not foresee a permanent structural shift away from physical live events to live streaming** — in fact we see the growth of live streaming as rather complementary, although we do not factor any benefit in our industry forecasts at this stage given the uncertainty around the direct monetisation of live streams. As an example, recent surveys from Live Nation and TicketMaster revealed that over 90% of live music goers around the world intend to attend live events post COVID-19, while 72% of active fans in the US said they intend to return to live events within three months of COVID-19 restrictions lifting (nearly 80% within four months). Meanwhile, we note that the refund rate for the concerts which have been rescheduled by Live Nation stands at 10% so far.

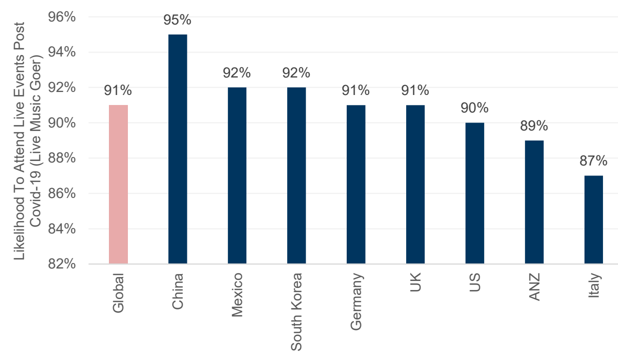
Exhibit 93: Willingness to attend live events immediately after the pandemic is low in the US as per a recent Nielsen survey
Survey results - Likelihood to attend event less than 1 month after pandemic, Willingness to attend event of 500 people or more



Survey results as of April 6

Source: Nielsen MRC

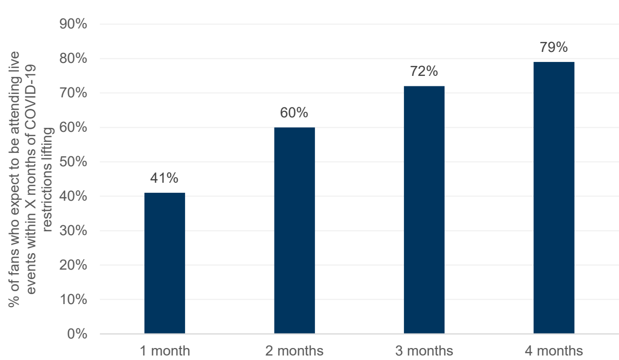
Exhibit 94: According to a recent survey, 91% of live music goers across the world are likely to attend live events post COVID-19...
Likelihood to attend live music events post Covid-19, live music goers by market



Sample size = 5,404

Source: 2020 Live Nation Global Impact of COVID-19 on Live Events Benchmark Study

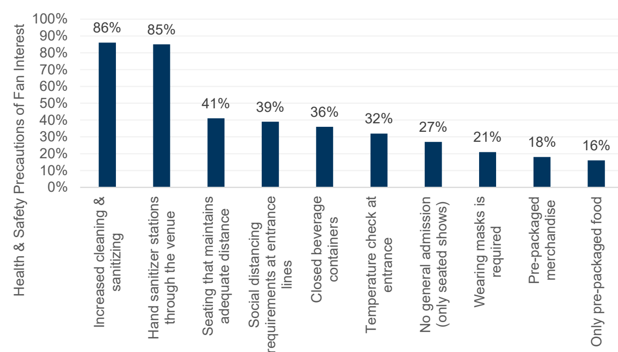
Exhibit 95: ... while 79% of active fans expect to be back at live events within 4 months of COVID-19 restrictions lifting
% of fans who expect to be attending live events within X months of COVID-19 restrictions lifting



Sample size = 6,968

Source: 2020 Ticketmaster US Impact of COVID-19 on Live Events (Active Fan) Benchmark Study

Exhibit 96: Increased cleaning of venues and providing hand sanitizer are precautions fans desire most
Survey of Health & Safety Precautions of Fan Interest

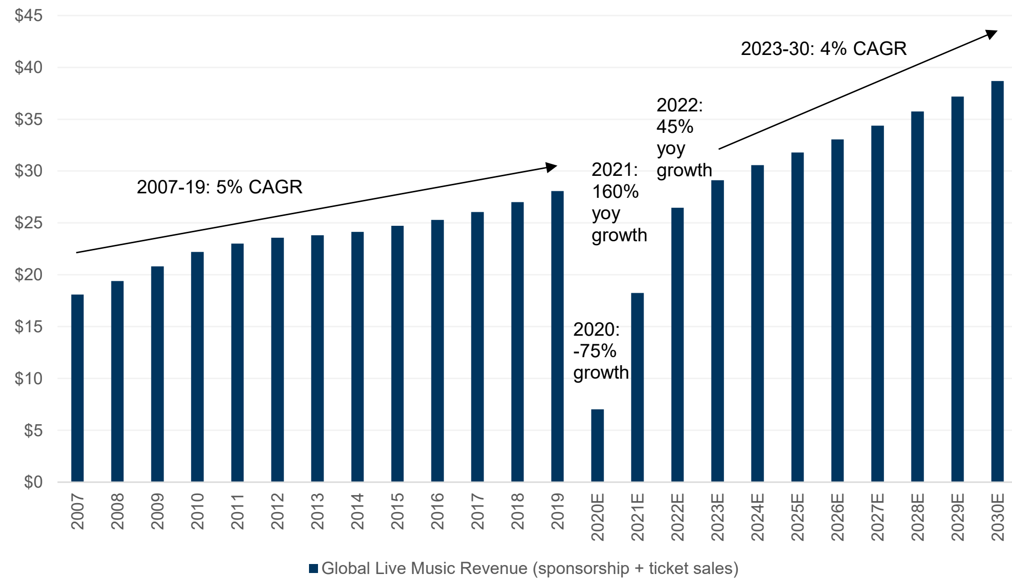


Sample size = 6,968

Source: 2020 Ticketmaster US Impact of COVID-19 on Live Events (Active Fan) Benchmark Study

However, the timing of this recovery is less clear. We believe most events should come back in 2021, and it is even possible that the absolute number of events grows vs. 2019 if restrictions force artists to hold more shows with smaller audiences. We note that venue bookings are not likely to be a constraint. However, we believe the revenue per individual event will be lower (we assume 65% of 2019), impacted by potential caps on audience size/density, travel restrictions and general economic weakness weighing on consumers' discretionary spend. Overall, this would see the Live Music market recover to 65% of its 2019 level in 2021, which implies a sharp yoy rebound of 160%. From there, our base case is that the market sees further strong growth of 45% yoy in 2022, returning to 94% of 2019 levels. We note that the vouchers currently being offered by Live Nation for cancelled events are at above face value, which could potentially help them raise nominal ticket prices that could be sustained in future years. Overall, we recognise that there is significant uncertainty with respect to the shape of this recovery, with our bear case (40% fewer events, 50% lower revenue per event vs. 2019, Exhibit 98) implying that the market only sees a very small recovery in 2021.

Exhibit 97: We expect the global live music industry to decline 75% in 2020 due to the impact of COVID-19 before recovering to 160%/45% growth in 2021/22
Global Live Music Market ($bn) and % growth



Source: PWC, Goldman Sachs Global Investment Research

Exhibit 98: We expect the live music market to recover to 65% of its 2019 level in 2021, but also highlight a range of potential outcomes beyond our base case
2021E Live Music market scenario analysis based on various # of events and event monetisation levels

	2019	2021E	*% of 2019 level*
Global live music market ($bn)	**28.1**	**18.3**	*65%*
# of events (mn, per BandsInTown)	2.5	2.5	*100%*
Implied revenue per event ($k)	11.2	7.3	*65%*

Live music market 2021 ($bn)		**Revenue per live event (% of 2019 level)**					
		50%	*60%*	*70%*	*80%*	*90%*	*100%*
# of live music events in 2021 (mn)	*1.50*	8.4	10.1	11.8	13.5	15.2	16.8
	1.75	9.8	11.8	13.8	15.7	17.7	19.7
	2.00	11.2	13.5	15.7	18.0	20.2	22.5
	2.25	12.6	15.2	17.7	20.2	22.7	25.3
	2.50	14.0	16.8	19.7	22.5	25.3	28.1
	2.75	15.4	18.5	21.6	24.7	27.8	30.9

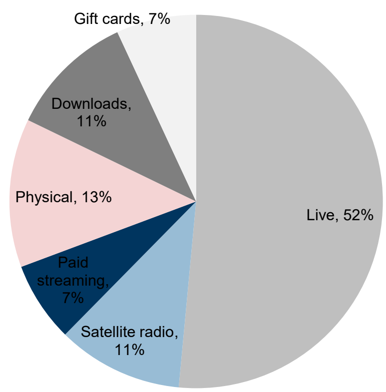
Source: Goldman Sachs Global Investment Research

Long-term growth outlook intact - benefit from the Experience Economy

We believe Live Events remains an attractive market in the medium to long term with a number of demand and supply side tailwinds.

- **Benefit from changing consumer trends**, particularly with respect to the "millennial experience economy," which is driving secular demand growth for live events. Anecdotally, in a survey conducted by Nielsen, 78% of millennials in the US said they would rather spend money on an experience than buying something desirable, and 69% feel attending events makes them more connected to other people, the community, and the world. With the majority of the millennials now of working age, their spending power is poised for growth, estimated at over $1.3 trillion in the US, according to Eventbrite. The growing interest in 'experiences' along with the rising spending power of millennials is driving growth for live events, particularly music festivals and DJ events.

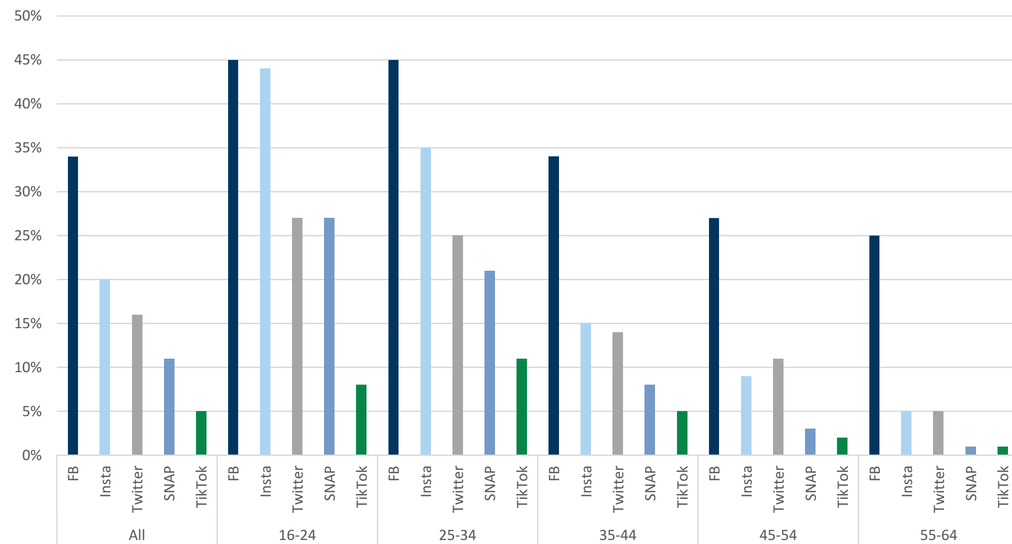
Exhibit 99: The majority of consumers' spend on music goes towards tickets to live events
US consumer music spend by type, 2016



Source: Nielsen

- **Increasing relation between music and social media:** In 2019, 45% of 16-24 year olds in the UK said they had used Facebook and Instagram to listen to/ watch music in the past month, according to IFPI data. The popularity of social media, particularly among millennials, greatly amplifies the speed at which word of mouth is shared, making touring and music discovery, especially in countries outside of the artist's residence, easier than ever before. Social media trends are increasing the conversation between fans and artists, opening the door to new monetisation opportunities through ticket sales, merchandise and sponsorship.

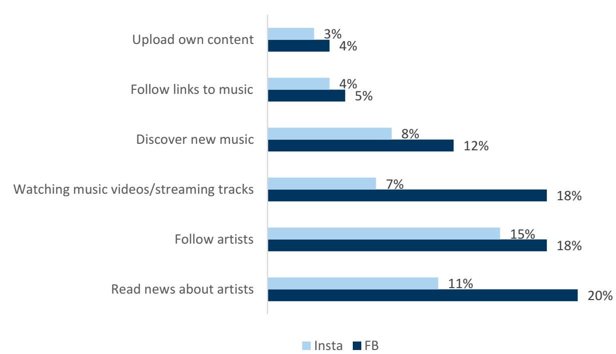
Exhibit 100: 45% of 16-24 year olds in the UK have listened to/ watched music on Facebook/ Instagram in the past month
Music listening/watching on social media - monthly penetration, 2019



Sample size = 34,000

Source: BPI, IFPI Music Consumer Study 2019

Exhibit 101: People report using social media to keep up to date with artists, watch/ listen to music and discover new music
% survey response

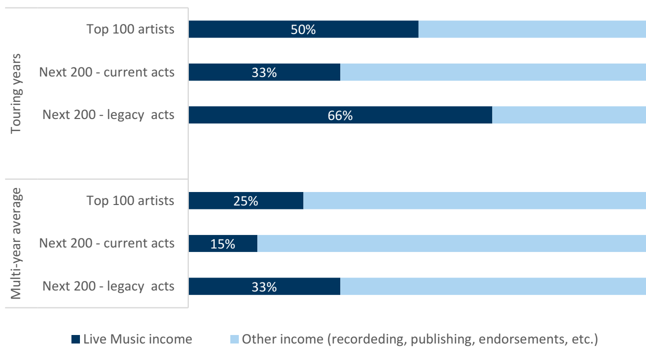


Source: BPI, IFPI

- **Sponsorship revenue set to benefit from access to younger audience:** For marketers, music events provide access to younger demographics that tend to be fickle with brand loyalty. Music sponsorship helps brands become culturally relevant, authentic and meaningful by attaching their names to positive experiences.
- **Concerts are increasingly important to an artist's livelihood**, **driving concert supply growth:** Due to declines in album sales, artists are more dependent on global touring. Throughout the 1980s and 1990s, physical album sales were the dominant source of revenue for artists, peaking in 1999, right before Napster gained relevance. From 2000 to 2019, recorded music revenue declined from 66% of all

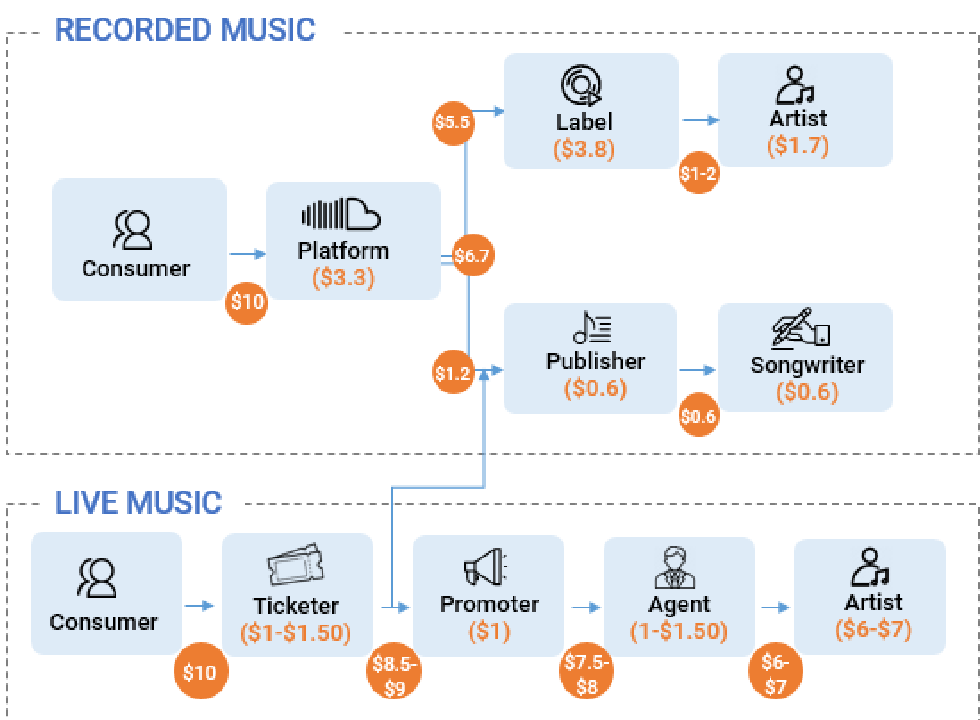
music industry revenue to 48%. Meanwhile, live concert revenue has continued growing at 4% CAGR globally over 2000-2019, and in 2013, for the first time ever, live music revenue surpassed total recorded music. The shift to touring as the main source of artist revenue has provided a tailwind to concert supply growth, which is likely to continue, in our view given that even major artists derive a large part of their income from touring.

Exhibit 102: Top artists earn a significant portion of their income from live performances, particularly in years that they are touring
Artist income breakdown (illustrative)



Source: BMG, Billboard Annual Money Maker Survey, 2009-19

Exhibit 103: For every $10 spent on music, artists would receive 60-70% of the pie from touring as opposed to 17% from recorded
Illustrative Recorded and Live Music value chain



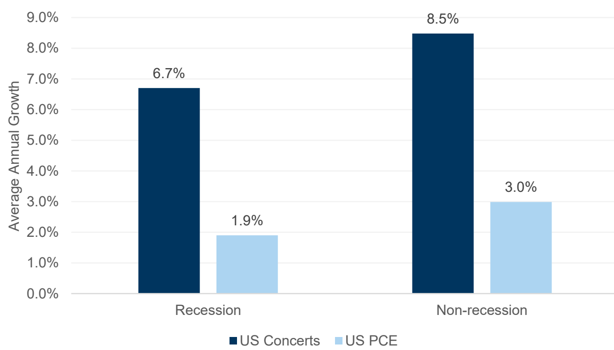
Amounts in () would refer to revenue net of pass through costs

Source: Goldman Sachs Global Investment Research

- **Concerts spending resilient during recessions.** Even during prior recessions, we calculate US concert revenue average annual growth was 6.7% compared to 1.9% for total PCE. During non-recessionary years, concerts average annual growth was 8.5% compared to 3.0% for all PCE.

Exhibit 104: US concert spending outpaced PCE growth by 3.6x during recessions and 2.8x during non-recessionary periods

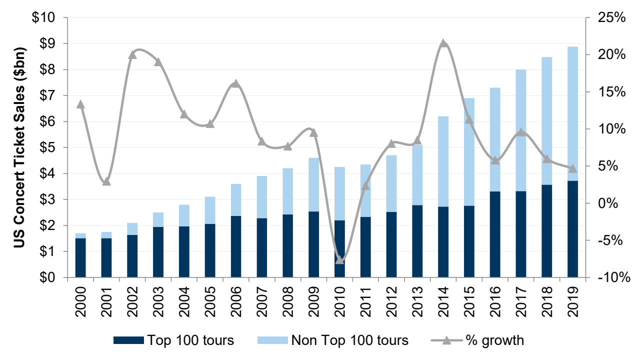
US consumer spending growth vs concert growth



Source: US Bureau of Economic Analysis (BEA), Pollstar, Goldman Sachs Global Investment Research

Exhibit 105: Concert ticket sales in the US have grown at a 9% CAGR over 2000-19

US concert ticket sales, 2000-2019



Source: Pollstar, Goldman Sachs Global Investment Research

Artists: experimenting with new ways to connect with fans and monetise their music

Artists will likely suffer from reduced touring and merchandising revenue, which normally accounts for a high proportion of their income as outlined above. For the very long tail of smaller artists in particular, live gigs are crucial, with the average musician in the US reportedly deriving 42% of their income from live and only 1.5% from streaming royalties (Digital Music News, June 27, 2018). Major artists should fare comparatively better given their income from streaming, although we would expect a material impact for legacy artists that are no longer recording new hits but are still touring, and artists that skew more heavily towards physical sales.

Artists with a strong following amongst streaming subscribers will continue to do well, in our view. Dua Lipa, Drake and the Weeknd are amongst those artists who recently released a new album, with the Weeknd's *After Hours* reportedly seeing a very strong launch on March 20 despite coinciding with the escalation of the lockdown restrictions in the UK and US (Music Business Worldwide, March 22, 2020). However, even the top 100 artists globally derive more than 50% of their income from touring in their tour-heavy years (vs 25% multi-year average). In 2018, Drake was the no. 3 earner globally and the most streamed artist on Spotify. Despite this, his streaming income only accounted for only one-third of total earnings. Meanwhile, 2018's No. 1 earning artist, Taylor Swift, generated 91% of her income from touring. Given the importance of touring to artist income and the significant impact on live events currently, we believe there is a risk that artists could seek higher payouts from streaming services in order to offset this impact. According to recent press reports, around 2000 artists have signed an online petition asking Spotify to triple its royalty rates to artists (Guardian, March 19, 2020). While this could potentially lead to artists holding back their music from streaming platforms, we note that streaming could still play a key role in driving consumers toward livestreaming concerts in the near term as well as physical concerts when events resume. According to a study by Eventbrite in 2015, 51% of concert-goers buy tickets to shows of artists they discovered through streaming.

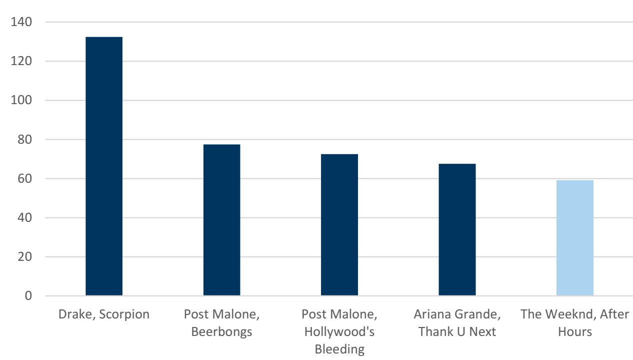
Exhibit 106: A number of album release have postponed amidst the COVID-19 crisis

Artist	Album	Original date	Revised date
Lady Gaga	Chromatica	10-Apr-20	na
Prince	Vinyl reissues - The Rainbow Children, One Nite Alone	17-Apr-20	29-May-20
Sam Smith	To Die For	01-Jun-20	Later in 2020
Lamb of God	Lamb of God	08-May-20	19-Jun-20
Alanis Morissette	Such Pretty Forks in the Road	01-May-20	na
Dixie Chicks	Gaslight	01-May-20	na
Alicia Keys	Alicia	20-Mar-20	na
Luke Bryan	Born Here, Live Here, Die Here	24-Apr-20	07-Aug-20
The 1975	Notes on a Conditional Form	24-Apr-20	22-May-20
Margo Price	That's How Rumors Get Started	08-May-20	Summer 2020
Kehlani	Second album - Unnamed	na	na
Willie Nelson	First Rose of Spring	24-Apr-20	03-Jul-20
Haim	Women in Music Pt. III	24-Apr-20	Summer 2020

Source: Billboard

Exhibit 107: The Weeknd's new album saw one of the best launches in Spotify history despite coinciding with the escalation of lockdown restrictions in the UK/US

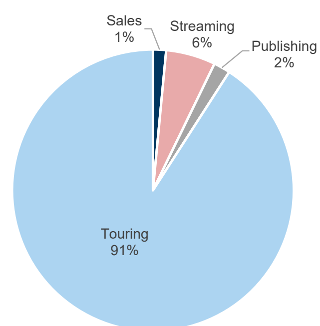
Global album chart plays in first 24 hours (mn)



Source: Music Business Worldwide

Exhibit 108: 2018's No. 1 earning artist, Taylor Swift, generated 91% of her income from touring

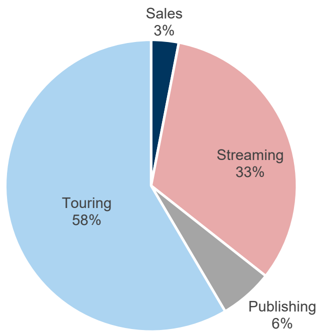
Taylor Swift revenue by type, 2018



Source: Billboard, Goldman Sachs Global Investment Research

Exhibit 109: Drake's streaming income only amounted to only 33% of total earnings in 2018, despite being the most streamed artist on Spotify during the year

Drake revenues by type, 2016



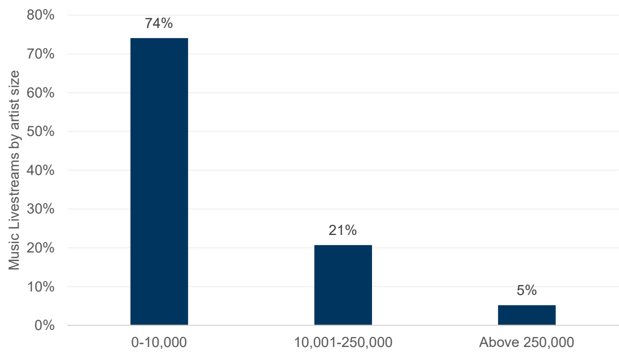
Source: Billboard, Goldman Sachs Global Investment Research

Could live streaming emerge as a big opportunity?

The industry has been exploring new ways for artists to connect with fans and monetise their work. Live streaming has become a popular way for artists to perform live for their fans, and we believe artists with a strong social media presence are at an advantage in this environment. Online concert discovery and tour promotion platform Bandsintown, for example, saw 21.5% sequential growth in weekly total livestream events added to the platform between April 22-28, following 11.75% growth in the previous week. So far livestreams have been mainly used by smaller artists, which accounted for 74% of livestreaming events by Bandsintown in April 2020. However, the share of livestreams on Bandsintown by artists with more than 250,000 followers recently picked up to 5.3% as of April 30 from 3.8% on March 20 (Billboard, April 30). According to a Bandsintown Fan Survey, 74% of concert fans will continue to watch livestreaming events even after physical events resume, while 71% are willing to pay artists to help them in the current situation.

Exhibit 110: 74% of livestreaming events on Bandsintown were by smaller artists

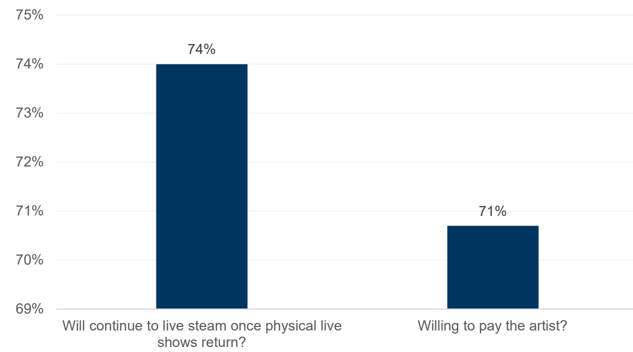
Music livestreams by artist size (number of trackers/followers on Bandsintown), April 2020



Source: Bandsintown

Exhibit 111: 74% of concert fans said they would continue to watch livestreaming events even after physical events resume, while 71% are willing to pay artists to help them in the current situation

Bandsintown Fan Survey (April 4-7, 2020)



Sample size = 6,805

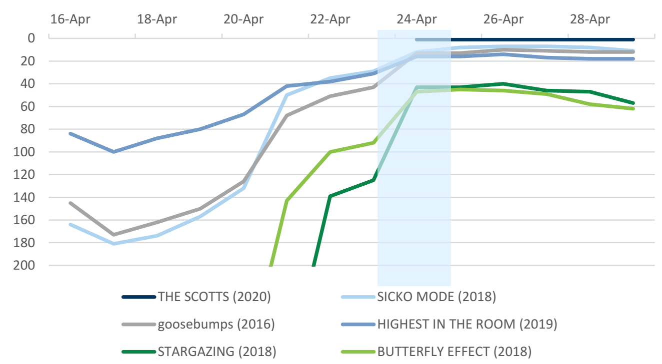
Source: Bandsintown

Various monetisation methods exist for live streamers, including virtual tip-jars as well as subscription and ad-funded models. We also see some value in artists' live streaming efforts given the opportunities they create to promote merchandise sales direct to consumers, which the record labels could also capture. As an example, Tencent Music's Kugou and Kuwo offer live streaming features where users can access the event for free and have the option to purchase virtual gifts for artists as well as digital albums, with Tencent Music sharing a portion of the revenues with the artists. Bandinstown runs its live concerts through Twitch where monetization is mainly through advertising, similar to Facebook Live and YouTube Live. Facebook has announced that it will soon allow the option to charge for access to events on Facebook Live. We have also seen examples of almost entirely new formats of performance, for example, Travis Scott's recent event on *Fortnite*. Over April 23-25, a series of virtual concerts 'performed' by Travis Scott was watched by 28mn unique viewers, which offered fans a chance to hear his latest hit *THE SCOTTS* before its official release on April 24. The concerts coincided with several of Travis Scotts's older hits seeing a resurgence in popularity, and *THE SCOTTS* debuted at #1 on Spotify's global Top 200 chart.

At this stage, however, the market opportunity and fans' willingness to pay remains unclear and the ability to drive greater monetisation will be key to inciting more top artists to perform on livestreams.

Exhibit 112: Travis Scott's virtual concerts on Fortnite over April 23-25 coincided with a resurgence in his popularity on Spotify

Spotify global Top 200 chart ranking for a selection of Travis Scotts's songs



Source: Spotify

Disclosure Appendix

Reg AC

We, Lisa Yang, Heath P. Terry, CFA, Piyush Mubayi, Heather Bellini, CFA, Rod Hall, CFA, Aditya Buddhavarapu, CFA, Brett Feldman, Drew Borst, Stephen Laszczyk, Adam Hotchkiss, Lucy Sun and Katherine Tait, hereby certify that all of the views expressed in this report accurately reflect our personal views about the subject company or companies and its or their securities. We also certify that no part of our compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

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Goldman Sachs Investment Research global Equity coverage universe

	Rating Distribution			**Investment Banking Relationships**		
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