
Value of YouTube to the music industry - Paper V - Direct value to the industry

June 2017

1 Introduction

The music industry has undergone significant change over the past few years, with declining volumes of music sold through an ownership model (such as downloads) and rapid growth in usage models (such as streaming).¹ While many services provide value to the recorded music industry, in the 12 months to December 2016 one video streaming platform, YouTube, paid out over USD 1 billion to the music industry from advertising alone.² YouTube claims that not only does it return money directly to creators, but also that it has a promotional effect on music.³ However, some commentators argue that YouTube has a negative impact on the music industry: paying insufficiently for content and cannibalising other services.

RBB Economics has undertaken several empirical analyses in order to evaluate YouTube's potential promotional or cannibalisation effects on the music industry in Europe. We analyse the results from 1,500 person user surveys carried out in each of four European countries, as well as data on YouTube views and streams on audio platforms of over 8,000 tracks across four European countries over a three year period.⁴

In this, our fifth note, we draw together the results of our first four notes, and additionally consider the direct value to the music industry.

¹https://www.theguardian.com/music/musicblog/2016/apr/28/youtube-no-other-platform-gives-as-much-money-back-to-creators?CMP=twl_a-music_b-gdnmusic

²<https://youtube.googleblog.com/2016/12/a-billion-reasons-to-celebrate-music-on.html>

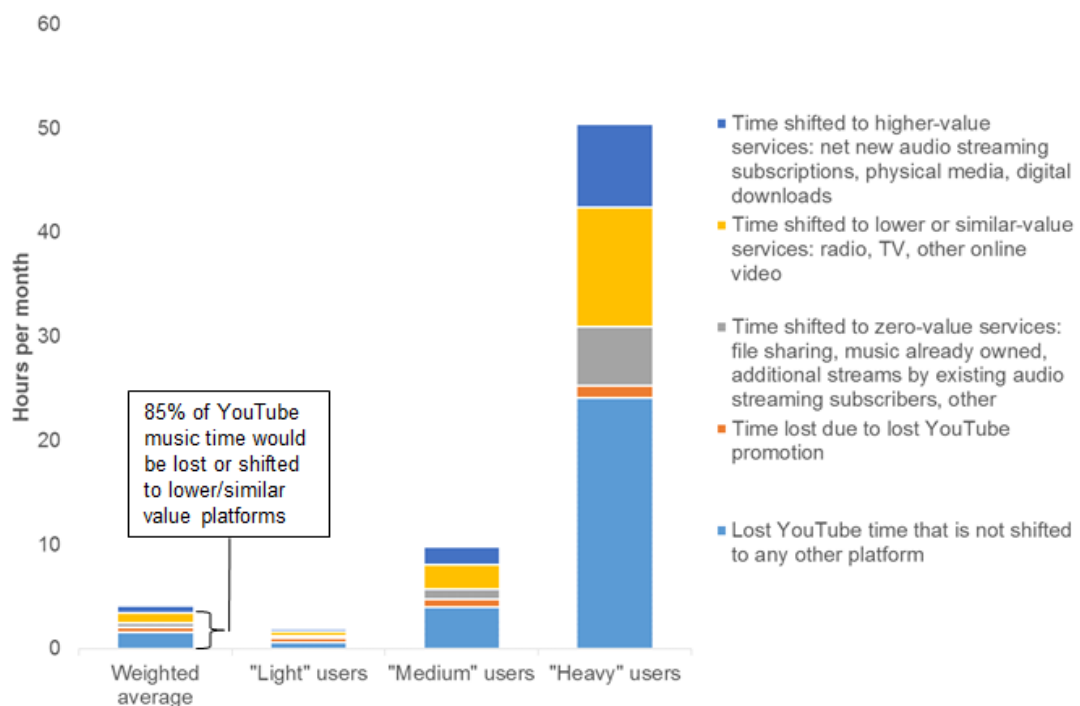
³https://www.theguardian.com/music/musicblog/2016/apr/28/youtube-no-other-platform-gives-as-much-money-back-to-creators?CMP=twl_a-music_b-gdnmusic

⁴ Throughout the report plays of YouTube music videos will be referred to as "views" and plays of audio streams as "streams". YouTube views are sourced from YouTube. Audio streams are sourced from third parties including GfK and OCC.

In our first note we considered the evidence of cannibalisation by YouTube of other legitimate music services.

- We looked at survey evidence and found that significant cannibalisation is unlikely: users of music on YouTube are primarily lighter users, and if music videos were no longer shown on YouTube, 85% of users' time would be lost or shifted to lower or similar value channels, TV, AM/FM radio and Internet radio, as shown in Figure 1, below. Some users would switch to file sharing or piracy.

Figure 1: Shift of monthly YouTube music hours if music was removed from YouTube



Source: Survey questions Q6, Q12-16, Q42-43, Q48-57 and Q72-74. YouTube promotion time is the 'upper limit' estimate: time spent listening to newly discovered music on a platform, multiplied by the importance of YouTube in new music discovery.

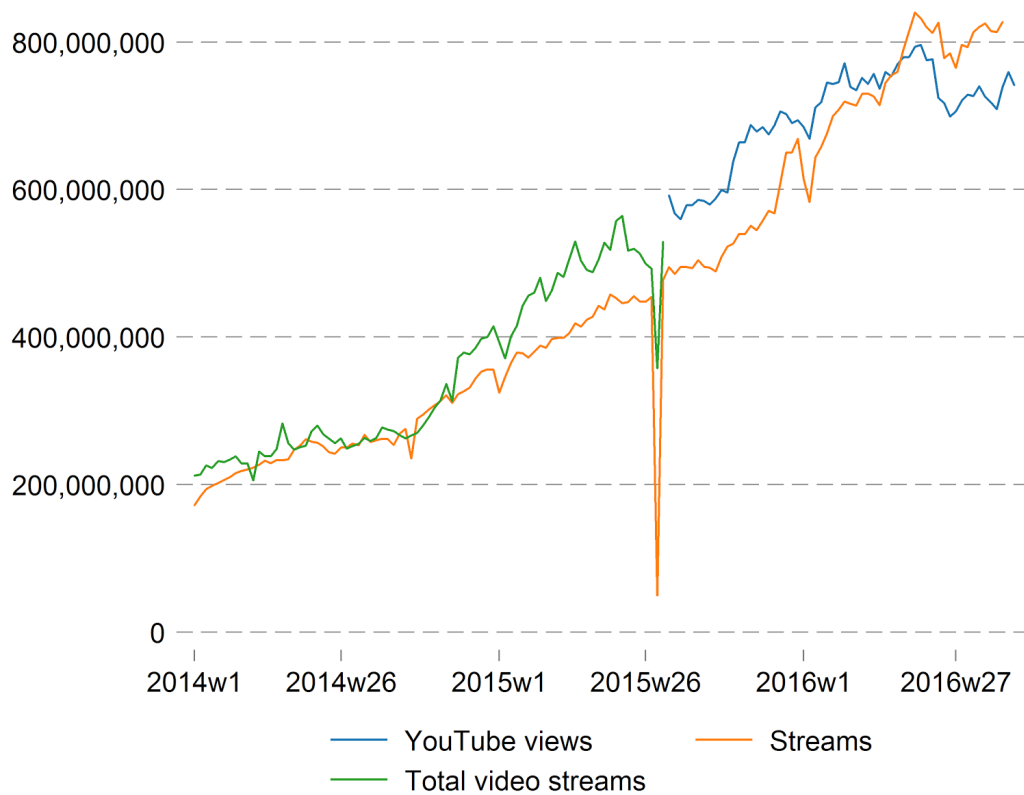
- We looked at historical data, to see whether the blocking of music videos of particular songs on YouTube in Germany led to any change in the streaming volumes for those same songs. We considered two different approaches and a range of statistical tests, which generally found no significant impact on streaming volumes, when songs were blocked on YouTube.
- On the basis of these data, we find no evidence of significant cannibalisation by YouTube of other legitimate music services.

In our second note, we considered evidence on the patterns of growth of different platforms over time, primarily audio streaming and video streaming platforms. This was an introduction

to the consideration of a potential promotional effect more generally.

- Survey evidence showed that YouTube is the most important source of discovery for YouTube users, and that heavier YouTube users also more heavily consume music through other legitimate channels.
- Data on YouTube views and streams on audio platforms showed that streaming volumes have continued to grow strongly, and in most markets have grown more strongly than video streams, as shown in Figure 2, below.

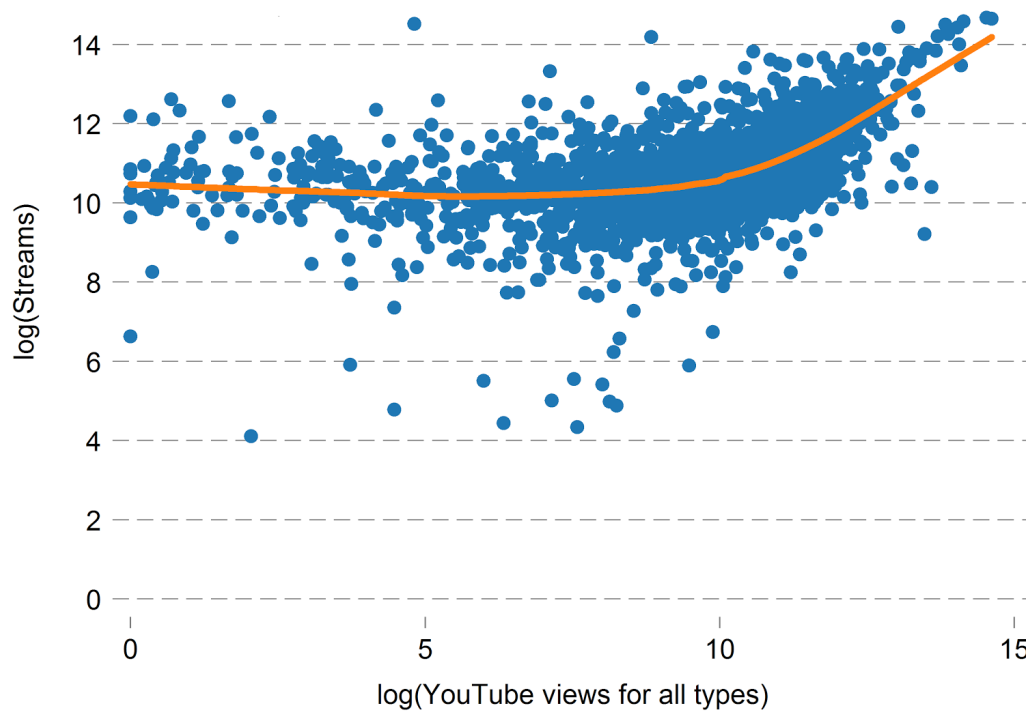
Figure 2: Total platform YouTube views vs streams in the United Kingdom



Source: RBB analysis of OCC data and YouTube internal data. Note: YouTube views data were only available from 2015w30. The data have been extended to prior years using OCC data on total video streams.

- We also found that individual songs that achieve higher video streaming volumes on YouTube, achieve higher audio streaming volumes on platforms like Spotify (and vice versa), as shown in Figure 3, below.

Figure 3: Correlation between streams and YouTube views, United Kingdom



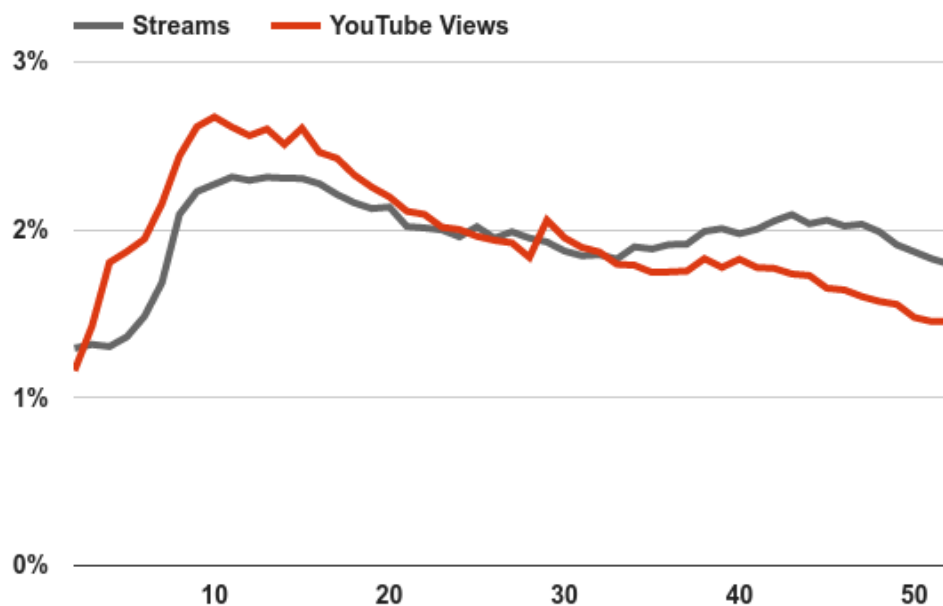
Source: RBB analysis of OCC data and YouTube internal data. Correlations are calculated across all track observations, i.e. for all the weeks in the dataset.

- These findings indicated that video and audio streaming have grown in tandem, and did not indicate significant substitutability between these two channels.

In our third note, we considered the evidence of a potential promotional effect of YouTube on other legitimate music services in more detail.

- Looking at historical data, not only have audio streaming volumes continued to grow rapidly over the past few years, while video streaming volumes have also grown, but when songs achieve higher video streaming volumes, they also achieve higher audio streaming volumes. YouTube views also tend to peak earlier than streaming volumes, and YouTube views tend to “lead” streams: views tend to rise first and then streams rise; YouTube views fall and then streams fall, as shown in Figure 4, below.

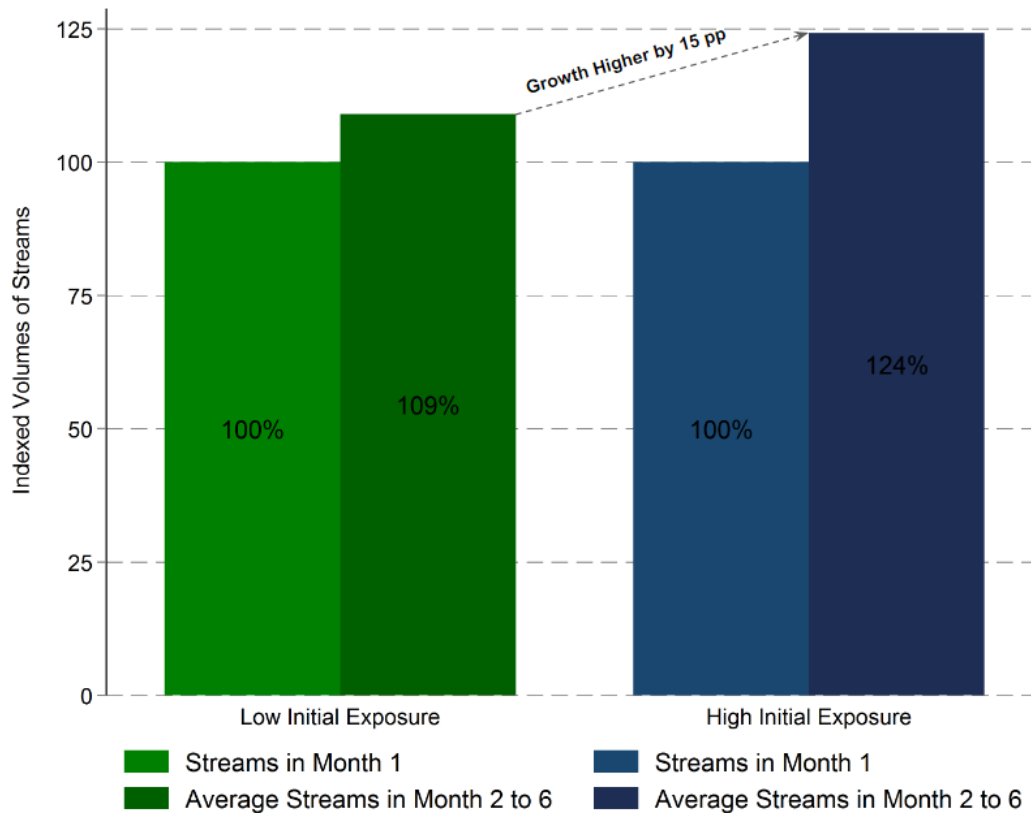
Figure 4: Share of streams vs YouTube views over first year of tracks, United Kingdom



Source: RBB analysis of OCC data and YouTube internal data. The sample includes the 426 tracks for which the first year after release is observed in the data (i.e. tracks released between 2014w1 and 2015w31). The volumes have been normalised by the first year total for each platform, so that the area under both charts is equal to one. The first two weeks of the lifecycle are excluded since streaming data is often missing for these weeks. Tracks where further streaming data was missing have been excluded from the analysis.

- Tracks with higher initial exposure on YouTube achieve higher streams on paid services like Spotify or Apple Music in subsequent months, compared with new releases that had lower initial exposure on YouTube, as shown in Figure 5, below.

Figure 5: Average monthly streams in months 2-6 compared to month 1, United Kingdom



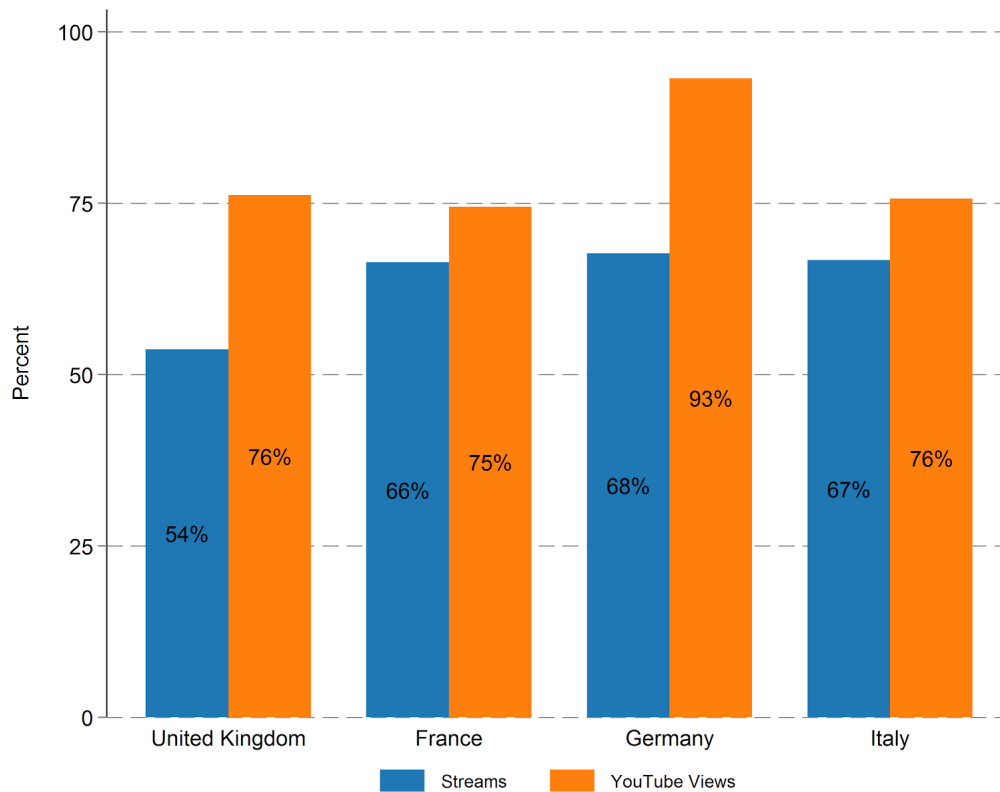
Source: RBB analysis of OCC data and YouTube internal data. Sample of 227 tracks released during 2014 and 2015.

- This effect is substantial - higher YouTube exposure is associated with between 12% and 142% more audio streams per month, and holds across countries, for popular and less popular tracks, and even for older tracks, over two years after release.
- This evidence is consistent with YouTube having a significant promotional effect on paid streams on other services.

In our final two notes, we consider questions of consumer value and overall value to the music industry. In our fourth note we considered the evidence of value for consumers arising from YouTube's music video offering, and the different ways in which users can consume that music.

- Data on YouTube views and streams on audio platforms showed that while users tend to listen more heavily to the most popular music on streaming platforms, users tend to consume more of the less popular and older tracks, on YouTube, as shown in Figure 6 and Figure 7 below.

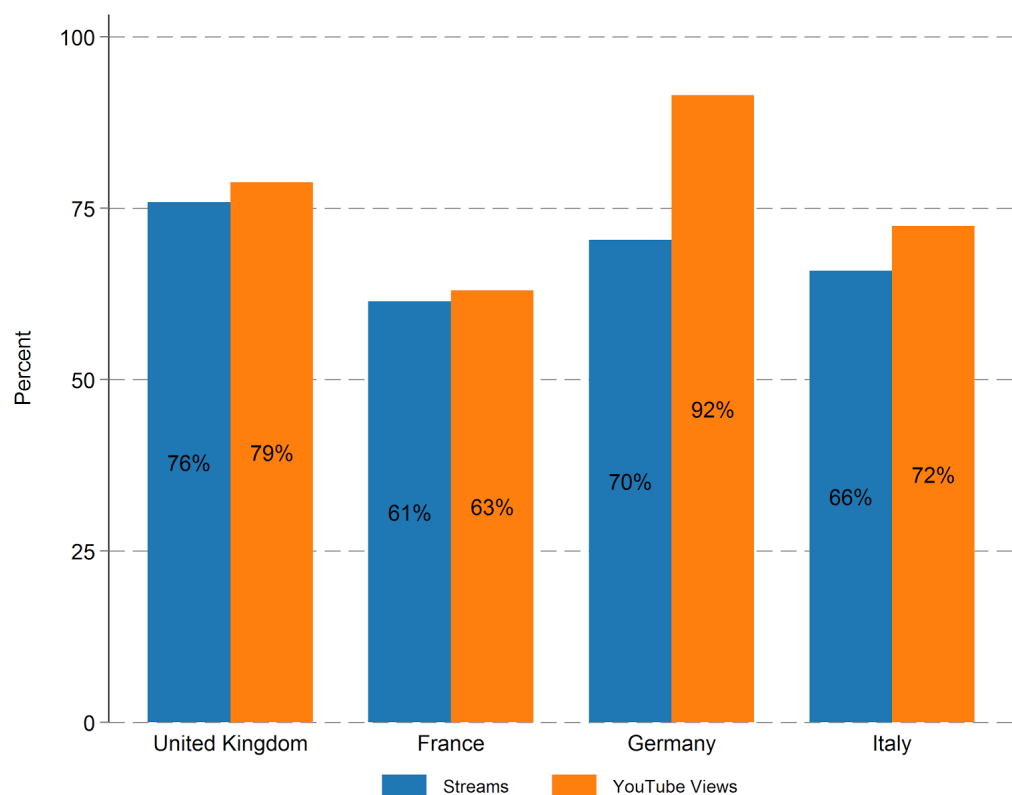
Figure 6: Shares of less popular tracks (non-picklist tracks) on audio streaming platforms and YouTube



Source: RBB analysis of GfK data, OCC data and YouTube internal data.

Note: In the United Kingdom, the tracks outside the top 3,500 streaming tracks constitute only 54% of total streaming volumes, but constitute 76% of total YouTube views. In Germany, the tracks outside the top 2,000 constitute only 68% of total streaming volumes, but 93% of total YouTube views.

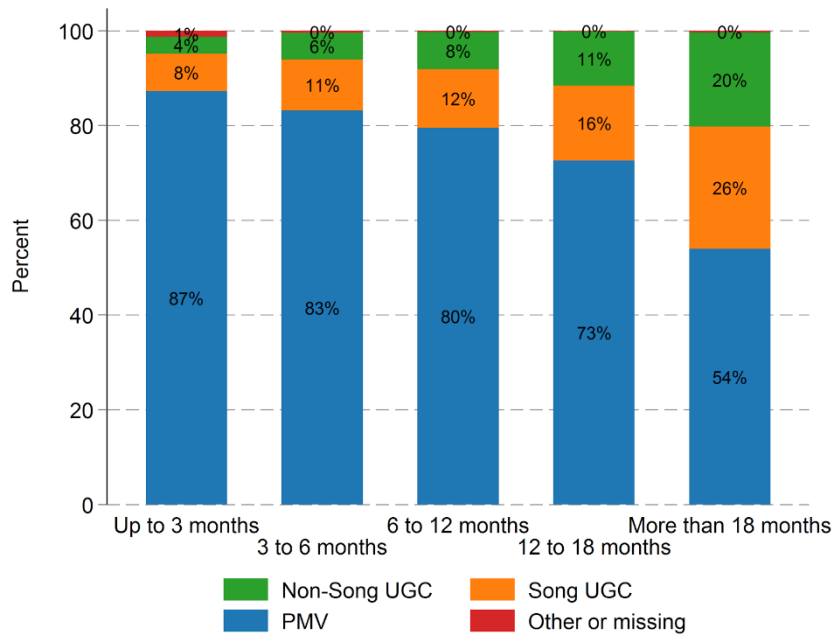
Figure 7: Shares of older tracks (picklist tracks older than 6 months) on audio streaming platforms and YouTube



Source: RBB analysis of OCC data and YouTube internal data. The figure shows the volume share for tracks older than 6 months out of the total volumes for the picklist in the reference week. Age is defined in terms of age at the reference week.

- User generated content is also an important way for users to consume music on YouTube, in particular for older and less popular tracks, as shown in Figure 8, below.

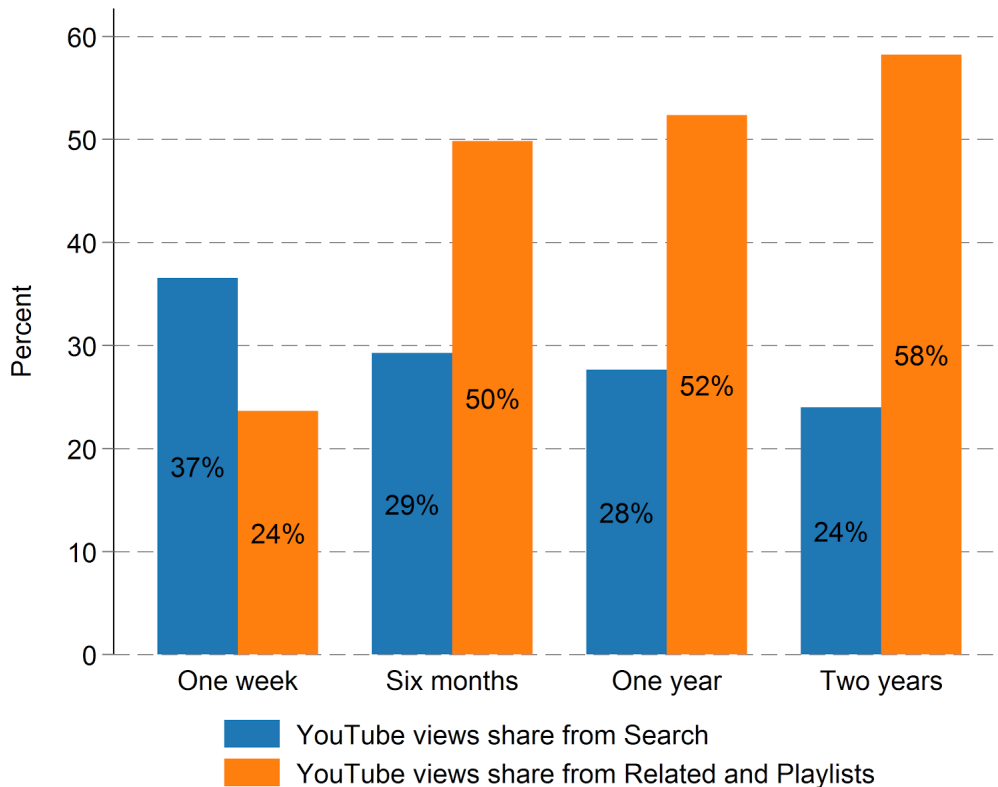
Figure 8: Breakdown of songs by type of views, across different song ages, United Kingdom



Source: RBB analysis of OCC data and YouTube internal data. The figure shows the distribution of YouTube views by content type for tracks in the picklist based on their age in the reference week.

- YouTube recommendations and playlists are important in driving consumption of music on YouTube, and are particularly important for older tracks, as shown in Figure 9, below.

Figure 9: Share of YouTube views by search, recommendations or playlists, by age of track, United Kingdom



Source: RBB analysis of YouTube internal data. The figure shows share of total YouTube views comprising “search” and “related” views for tracks of different ages.

Having considered the potential cannibalisation and promotional effects in these first four notes, in the remainder of this, our fifth note, we consider the evidence of YouTube’s contribution of direct value to the music industry.

2 YouTube's direct payment to the music industry

As noted above, in the 12 months to December 2016 one video streaming platform, YouTube, paid out over USD 1 billion to the music industry from advertising alone.⁵

We consider the data on YouTube views and streams on audio platforms. RBB received historical data from GfK for France, Germany and Italy, and from OCC for the United Kingdom, showing weekly volumes of audio streaming and downloads for a picklist of over 8,000 tracks across these countries; RBB also received internal data from YouTube on video streaming volumes for the same tracks for the United Kingdom, France, Germany and Italy.

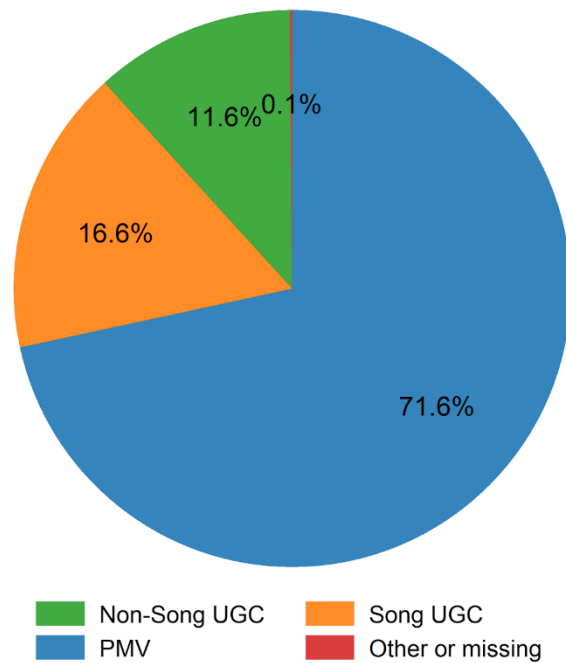
The data on YouTube views also allow us to investigate what types of videos have been consumed by YouTube users, in particular whether these were Premium Music Videos, uploaded directly by the music industry, or whether these were user generated content.

2.1 The majority of YouTube views for new and popular tracks are PMVs

Figure 10 below shows that PMVs account for over two thirds of YouTube views of music content in the United Kingdom. Similarly, PMVs constitute more than two thirds of YouTube views in Italy and France and more than half of the total YouTube views in Germany.

⁵<https://youtube.googleblog.com/2016/12/a-billion-reasons-to-celebrate-music-on.html>

Figure 10: Breakdown of songs by type of views, United Kingdom

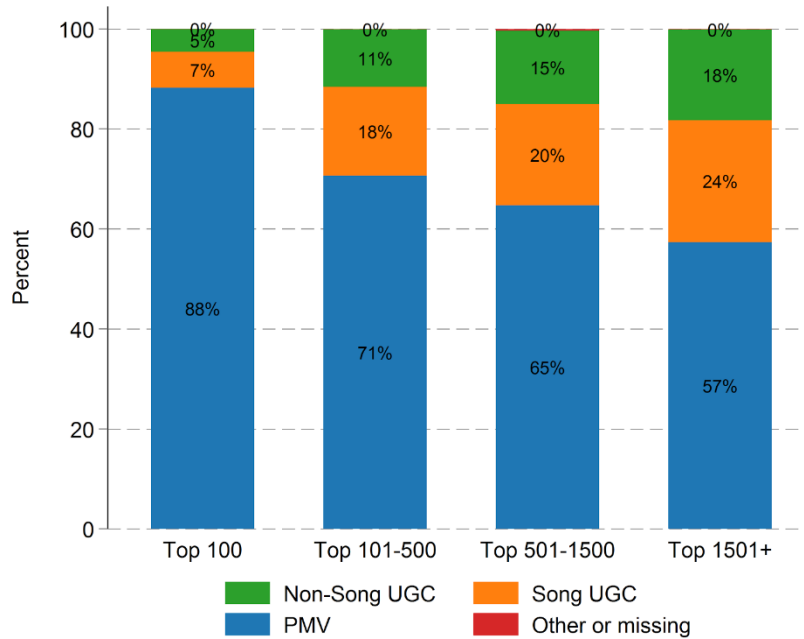


Source: RBB analysis of OCC data and YouTube internal data. The figure shows the distribution of YouTube views by content type for all tracks in the picklist in the reference week.

PMVs constitute the largest share of YouTube views of music content. PMVs are uploaded by YouTube partners belonging to the music industry, implying that for the most important songs to streaming, the music industry controls much of the content that has generated this revenue. This is especially true for newer and more popular tracks.

PMVs constitute the largest share of YouTube views for more popular tracks within the picklist. Figure 11 below shows that for the top 100 tracks in the United Kingdom, 88% of all YouTube views consist of PMVs, and that the share of PMVs progressively decreases with decreasing popularity. Likewise, for France, the proportion of PMVs views within YouTube views in the top 100 tracks is 94%, whereas for Italy the proportion is 93% and for Germany it is 71%, with the proportion of PMVs decreasing in all countries for less popular songs.

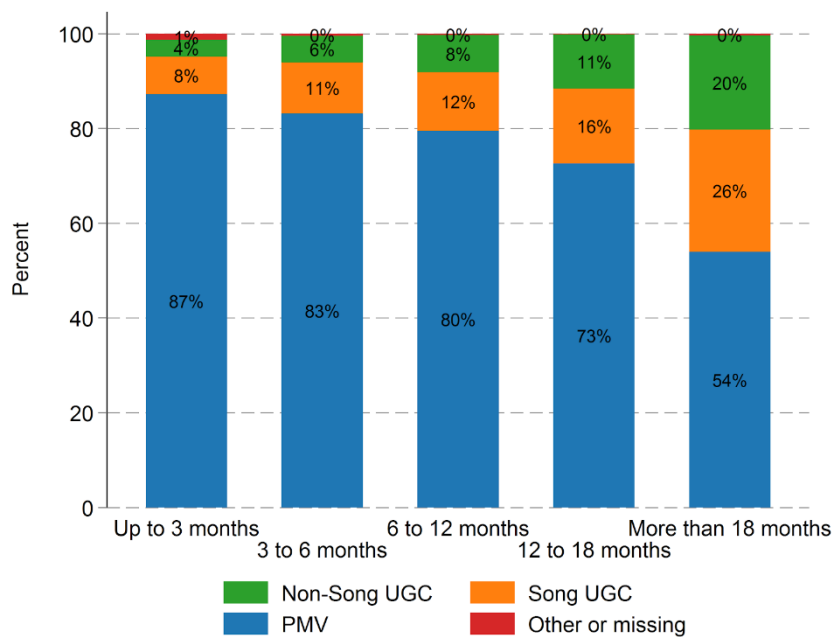
Figure 11: Breakdown of songs by type of views, and by popularity, United Kingdom



Source: RBB analysis of OCC data and YouTube internal data. The figure shows the distribution of YouTube views by content type for tracks in the picklist based on their popularity in the reference week.

PMVs also constitute the largest share of YouTube views for newer tracks. Figure 12 illustrates that, in the United Kingdom, PMVs account for 87% of the total views of tracks that are less than 3 months old, and that this share progressively decreases with the age of tracks.

Figure 12: Breakdown of songs by type of views, across different song ages, United Kingdom



Source: RBB analysis of OCC data and YouTube internal data. The figure shows the distribution of YouTube views by content type for tracks in the picklist based on their age in the reference week.

2.2 UGC and recommendations are increasingly important as a track gets older

Conversely, user generated content (“UGC”), and YouTube recommendations become more important in driving the consumption of older, less popular songs, on YouTube.

As shown above in Figure 9, while recommendations are important for all ages of music, this tends to increase with the age of the track. This effect becomes even more significant when also considering playlists like YouTube mix (an algorithmically-generated playlist based on music a user has listened to) or third-party created playlists. While only 24% of views of music in its first week following release are driven by YouTube recommendations or playlists, 58% of views of music over two years post release are driven by YouTube recommendations or playlists. We understand that this number shifts to over 80% when considering views across all YouTube music videos, as opposed to our sample of the top tracks.

3 The discovery on YouTube vs discovery on radio

As noted in our second paper, the survey data showed that YouTube is the most important platform for discovering new music for YouTube music users in each of the four countries, and that even for YouTube users, the second most important platform for discovery is generally AM/FM radio. For respondents who do not listen to music on YouTube, AM/FM radio is the most important platform for new music discovery.

We understand that YouTube generates up to 15 times the value to the music industry per view or listen than AM/FM Radio.⁶ To the extent that YouTube monetises better than AM/FM radio, such that a user that shifts discovery from AM/FM Radio to YouTube will be more valuable to the music industry for the time spent discovering music.

4 Promotional value of YouTube is incremental to direct revenue

As noted in our third paper, there is substantial evidence that YouTube has a significant promotional effect on other legitimate consumption channels. Audio streaming volumes have continued to grow rapidly over the past few years, while video streaming volumes have also grown, and when songs achieve higher video streaming volumes, they also achieve higher audio streaming volumes. YouTube views also tend to “lead” streams: views tend to rise first and then streams rise; YouTube views fall and then streams fall. Tracks with higher initial exposure on YouTube achieve higher streams on paid services like Spotify and Apple Music in subsequent months, compared with new releases that had lower initial exposure on YouTube. This effect is substantial, and holds across countries, for popular and less popular tracks, and even for older tracks, over two years after release, demonstrating that exposure on YouTube provides promotional value to paid streams on other services.

This promotional value is not monetised directly by YouTube, but is incremental to any direct revenues that YouTube provides to the music industry.

⁶ YouTube provided RBB with revenue figures for different media outlets, which suggest, that YouTube pays up to 15 times the value of AM/FM radio to the music industry per listen.

5 Conclusion

In this fifth note we have considered the evidence for the direct value provided by YouTube to the music industry.

YouTube provides substantial direct revenues to the music industry, amounting to some USD 1 billion in 2016. This is driven by advertising revenues, and the vast majority of streams for more popular and newer tracks arise from PMVs, that are directly uploaded by the music industry. For older and less popular music, YouTube offers alternative means for user engagement, such as UGC and recommendations.

Part of the time that users spend consuming music on YouTube consists of the discovery of new music. To the extent that this is a substitute for discovery on AM/FM radio, or to the extent that there are ongoing shifts of discovery activity from radio to YouTube, we understand that YouTube provides higher value per track to the music industry.

In previous notes we have set out evidence that YouTube has a significant promotional effect on other legitimate consumption channels. This promotional value is not monetised directly by YouTube, but is incremental to any direct revenues that YouTube provides to the music industry.