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Revenue Distribution From Music Streaming - A Quantitative Analysis of Swedish Artists on Spotify

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Abstract

Since the release of Spotify in 2008, the discussion over artist remuneration from the platform has been fierce. In this study, all Swedish artists that have generated more than 1 million streams on Spotify since its release in 2008, have been analyzed. Detailed data has been gathered for every track available from each artist, and aggregated total figures have been calculated. In total, 267.8 billion streams were included. The genre composition of the aggregated total has been investigated, showing how each genre has performed since the beginning. Furthermore, a simulation has been made as to how much revenues artists could have generated during their lifetime on Spotify, in three royalty scenarios. The results shows which Swedish artists and genres have benefitted from the Spotify streaming model, and which kinds of artists have not been able to convert their artistry to the streaming domain.

1. Introduction and motivation

The Spotify music streaming platform was publicly released in Sweden on October 7th, 2008. Since then, the platform has become one of the largest Digital Service Providers (DSP) for music in the world, and in many countries the largest one. Spotify has also become the largest economic contributor to rights holders in the music industry; labels, artists, music publishers and composers, in total Spotify has paid almost \$40 billion to rights holders during the years 2008–2022.¹

In April 2023, Spotify reported 515 million users globally for the first quarter of 2023, with more than 210 million users paying for their subscription.² More than 9 million individual artists have uploaded music to the platform globally.

According to MIDiA Research, Spotify had 30.5% of the premium subscriber market in 2022, Apple Music 13.7%, Tencent Music 13.4% (with services QQ Music, Kugou, Kuwo and WeSing), Amazon Music 13.3%, and YouTube Music 8.9%.³

¹ <https://loudandclear.byspotify.com>

² <https://investors.spotify.com/financials/>

³ <https://midiaresearch.com/blog/music-subscriber-market-shares-2022>

From a revenue perspective, the five largest DSPs, Spotify, YouTube, Apple Music, Amazon Music and Tencent represent close to 80 percent of the total global premium music streaming market.

Spotify's rise to become the leading economic contributor to rights holders in the music industry has not happened without a hassle though. Already in the early years, when the streaming platform was mainly a Scandinavian phenomenon, Swedish artists complained that the payment they got was infinitesimally small.⁴

The debate on remuneration from Spotify has continued ever since. Artists like Thom Yorke, Neil Young, Taylor Swift, Damien Jurado, David Byrne, Joni Mitchell, Graham Nash, Failure, Nils Lofgren and others, have expressed criticism of Spotify, even retracting their music catalogues from the platform. In the last episode of the Netflix series "The Playlist"⁵ released in October 2022, a series with the objective of telling the story of how Spotify came to be, an image of future massive protests from artists towards Spotify is depicted, and clearly there are many artists that are dissatisfied with their economic compensation for the streams generated on Spotify.

Nevertheless, Spotify pays the same share of their revenues to rights holders as other DSPs do, be it Apple Music, Amazon Music, YouTube, Deezer, Tidal, or anyone else. All DSPs are under the same kind of contractual obligations with the different parties of the music industry, roughly 68–72 percent of DSPs total revenues is distributed to the rights holders of the music industry.⁶

In 2022, Spotify distributed 1.6 billion SEK to the rights holders in the Swedish music industry. The amount of artists that generated more than 5 million SEK (~\$500,000) in annual payout had increased by 300% between 2017 and 2022, and the amount of artists that generated more than 10 million SEK (~\$1,000,000) in payout increased by 200%.⁷

So, why do certain artists seem more dissatisfied with Spotify than with other DSPs, despite the fact that Spotify pays the same revenue share to music rights holders as all the others?

The purpose of this study is to reveal which Swedish artists and genres have benefitted from the payments generated by Spotify during the 14 years between October 2008 and October 2022. The goal is to shed light upon what kind of music and artists that have succeeded on the platform, as well as what kind of music and artists that have not succeeded, with the ambition of explaining the reasons behind the development.

Obviously, those artists and companies that are receiving substantial payouts from Spotify are not the ones standing on the barricades opposing the model. Coming out in favor of Spotify, as a winner, is not always easily done in the current debate climate. In the spirit of transparency though, it is more important than ever to understand the economic mechanisms behind music streaming, explaining why some artists become wealthy winners while others are counting pennies.

⁴ <https://www.realtid.se/petter-ger-sig-in-i-spotify-braket/>

⁵ <https://www.netflix.com/title/81186296>

⁶ <https://www.billboard.com/pro/music-streaming-royalty-payments-explained-song-profits/>

⁷ <https://www.musikindustrin.se/2023/05/03/spotify-med-siffror-for-sverige/>

2. The music streaming economy

First, it is necessary to put forward a basic description of how the music streaming economy works in general. Although it is out of the scope for a paper like this to describe the whole economy exhaustively, there are several important prerequisites that need to be highlighted.⁸ Some of these prerequisites are often misunderstood, and have sometimes led to misconceptions regarding the remuneration from Spotify.

a) Spotify (or any other DSP) does not pay anything directly to artists and composers.

The remuneration is always distributed to some kind of middleman. It can be a label, a distributor, a Performance Rights Organization (PRO), a publisher, or some other kind of stakeholder in the ecosystem. This is an essential fact to bear in mind when trying to understand who has benefitted from the overall streaming model. As Spotify describes it: *“Spotify has no knowledge of the agreements that artists sign with their labels, so we can’t answer why a rightsholder’s payment comes to a particular amount in a particular month.”*⁹

b) Revenues from DSPs are divided in two fundamental ways, based on how copyright is constructed.

The songwriter, or author (which is another role than the “artist”, even though it might be the same person), and music publishers, receive their payment for the copyright of the *song*, through PROs, like ASCAP in the USA, PRS for Music in the UK, or Stim in Sweden, usually 13–15% of the DSPs net revenue. The song's share is in turn divided into a “public performance right” and a “mechanical right”, handled in different ways and by different collecting societies in different countries.

The largest share, usually around 50–55% of DSP revenues, is distributed to the ones that are owning the *recording* of a song, the track, also called the master, either paid directly to the owner, or through a distributor. If an artist is signed to a label, independent or major,¹⁰ it is usually the label that owns the recording, not the artist. The label acquires the economic right to the performance that the artist has made on the recording. The artist then gets a royalty from the label, the size depending on the active contract in place.

The difference between the *song* (which is, as described, connected to the publisher and composer), and the *recording* (which is connected to the label and artist), is essential, and can be explained by an analogy: When a physical building is created, an architect first puts together a schematic plan over how the building should look like. The drawings include all of the elements that the building will have, and an architect has the copyright to that drawing. It is the Intellectual Property (IP) of the architect.

⁸ For a more thorough explanation of the streaming economy, see for example Cooke C. (2020) *Dissecting The Digital Dollar - Third Edition: The streaming music business explained and discussed*, and Johansson D. (2022) *Streams and Dreams - A Fair Music Economy for All*.

⁹ <https://artists.spotify.com/en/help/article/royalties>

¹⁰ In the music industry there are three large companies that are deemed as “major labels”: Universal Music Group, Sony Music Entertainment, and Warner Music Group. All labels that are not owned or controlled by one of these large labels, are considered to be independent labels.

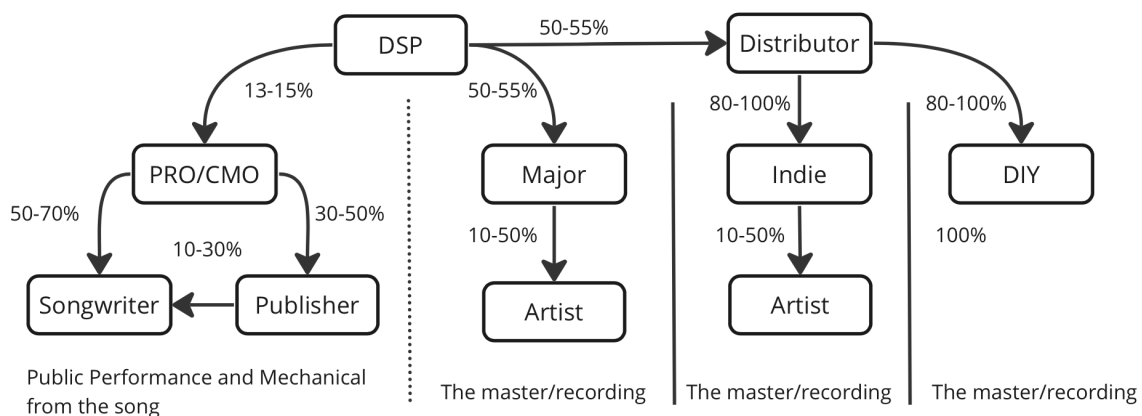
A songwriter is like an architect, and a song is like an architectural drawing.

When the building is constructed, another set of roles is activated, engineers, bricklayers, electricians, carpenters, scaffolding etc. All of these are physically manifesting the architectural drawing into existence, and further on when a real estate agency sells the building, someone becomes the owner. The owner has ownership of the building, but does not own the architectural drawings; they are still the IP of the architect.

When a song is recorded, it could be called the “performatic manifestation” of a song. It is fixed in time, and other roles are activated, such as the record label, producers, musicians, sound engineers and so on. Hence, although it is all part of the same process, there is a crucial difference between the *song* and the *master/recording* of that song, something to remember when simulating the music streaming economy.

The performing artist on a recording also has the exclusive right to the performance itself. When an artist signs with a label, this right is transferred to the label, which in practice means that the artist will receive the streaming remuneration from the label, according to the contract in place. As described below, revenues from DSPs are distributed in a structured manner, depending on which “side” rights holders are located.

Flowchart for the distribution of revenues and royalty rates from DSPs to rights holders



c) The main economic model for music streaming is a country based pro-rata model, or streamshare model.

If there are 1 billion streams on Spotify in a country in one month, and a particular track has 1 million in streamcount during that month, the streamshare is 0.1% for that track. Revenues that are eligible for distribution to the different rights holders are placed in a royalty pool for that particular country. If the royalty pool totals f.e. €5 million, this particular track will receive 0.1% of that money: €5.000. The same calculation is made for all countries around the world, for each month, and for all >100 million tracks available on most DSPs. Both revenues and streamcount fluctuate between countries and months, hence the pro-rata level also fluctuates.¹¹

¹¹ Several alternative models have been discussed, mainly user-centric models. SoundCloud is at the moment (2023) the only DSP that is actively using a different model than the pro rata model, a model called Fan-Powered Royalties. Deezer have also promoted a similar model, the User-Centric Payment System.

d) There are no fixed per stream rates in the music streaming economy.

The economic value of a stream (which is defined as a track that has been played more than 30 seconds) is an average retroactive calculation that can only be done subsequently. Per stream value is therefore dependent on how much music the users of a particular DSP consumes in a month, in combination with the size of the total royalty pool for that particular month, among other variables, such as which subscription tiers users are signed up to.

If one million subscribers pay \$10 million in a month, and generate a hundred million streams during that month, the average value per stream would in total be \$0.1, but if the users generate a billion streams instead, the per stream rate would be \$0.01. This is of course a highly simplified example, but the purpose is to show that per stream rates fluctuate all the time.

A DSP promoting a high average economic per stream rate (as calculated subsequently), could simply be a result of low level consumption among the subscribers of that streaming platform. Hence, the retroactive average per stream value is mostly irrelevant as a metric for understanding which DSPs that pay the “best”. Different forms of tiers and pricing influences the average value per stream, and in the end, the total amount of payment to each individual rights holder is the primary metric to consider.

The music streaming economy is much more complex than what is sometimes advocated in the public debate. One of the reasons that it might be difficult to comprehend the complexity, is the inherent lack of transparency that follows with confidential agreements and contracts. In the USA, the DSPs revenue share paid to PROs, such as ASCAP and BMI, is transparent and publicly available, since the levels are decided by the governmental Copyright Royalty Board. In Europe, the tradition is that the PROs themselves negotiate the levels with DSPs, and those agreements are almost never openly available. On the master side, agreements are almost always confidential, but are often negotiated under MFN clauses (Most Favoured Nation).

2.1 Superstars and the economic value of streaming

Looking at the 25 most streamed artists on Spotify in the world, as of the beginning of March 2023, the aggregated streamcounts are impressive:

pos	artist_name	streamcount
1	Drake	76,082,317,511
2	Bad Bunny	58,757,897,401
3	Justin Bieber	46,385,475,008
4	The Weeknd	45,908,543,446
5	Ed Sheeran	44,067,821,439
6	Taylor Swift	42,349,036,794
7	Ariana Grande	37,051,372,119
8	J Balvin	36,386,281,792

9	Post Malone	34,736,108,838
10	Kanye West	34,430,498,648
11	Eminem	34,100,008,554
12	Travis Scott	32,662,722,468
13	BTS	32,331,279,391
14	Ozuna	31,012,618,985
15	Rihanna	30,938,596,097
16	Juice WRLD	29,543,311,619
17	XXXTENTACION	26,415,648,625
18	Billie Eilish	26,026,820,909
19	Khalid	25,388,897,441
20	Dua Lipa	24,652,098,594
21	Coldplay	24,525,162,375
22	Imagine Dragons	24,115,919,229
23	David Guetta	22,611,368,660
24	Maroon 5	21,389,568,450
25	Shawn Mendes	20,315,835,237

Spotify is the only large audio streaming platform that provides detailed figures on streamcount for each individual track, f.e. Apple Music, YouTube Music and Amazon Music do not provide these figures openly.¹² There could be several reasons why other DSPs do not publicly account for the total streams of each track, the most obvious being that the numbers would probably pale in comparison to the huge numbers on Spotify.

How does one go about to calculate the total economic value of, for example, Drake's 76 billion streams on Spotify? In essence, it is not possible to calculate an exact economic value from the outside, given the above described prerequisites. Of course, Spotify themselves knows the exact amount of money they have paid for the Drake catalogue during the years, but from an outside position it is only possible to make more or less qualified guesses.

The total value depends on many factors, such as where in the world streams have been generated, what tiers subscribers are using, when in the history of Spotify the streams were generated, and more. A billion streams on a market where the majority of the users are subscribing to the free tier will generate a much lower value than on a market like Norway, where 80 percent of Spotify users are paying for their subscriptions.¹³ It is also important to distinguish between how much money these streams have *generated*, that is, how much Spotify has paid in total to the rights holders connected to the music, and how much the artist actually *receives*.

¹² Apple Music only provides detailed streamcount exclusively to the artists and rights holders through Apple Music for Artists, YouTube Music streams are just the audio streams of the corresponding video on YouTube, and therefore not comparable, and Amazon Music only provides metrics exclusively through Amazon Music for Artists.

¹³ Polaris Music Hub: Digital Music in the Nordics
https://polarismusicub.com/wp-content/uploads/2022/06/Digital-Music-in-the-Nordics-2022_Report.pdf

Given the above described prerequisites, that artists never get paid directly from Spotify or any other DSP, that it is always handled through middlemen, it is each artist's contractual setup that dictates their actual payout, and, since there are often many songwriters, producers, musicians and other parties involved in the music, the different parties' final payout is always something completely individual.

Nevertheless, there have been several attempts during the years to calculate some kind of global mean average of the per stream rate on Spotify, for example based on payouts from distributors.¹⁴ These estimations usually vary between 0.3¢-0.5¢ per stream on the recording side historically. The per stream rate can be both higher and lower than this average, depending on the specific circumstances on different markets. The average per stream rate is higher in markets like the UK, the Nordic countries and USA, while considerably lower in markets like Mexico, India and eastern European countries.

Important to mention is that these estimations usually do not include the parallel revenue stream, the one that is paid to composers and publishers through PROs for the public performance and mechanization, as described earlier. Those rates also vary between different countries, but a general conception is that the per stream value on that side of business historically has been somewhere between 0.08¢-0.13¢ per stream.¹⁵

If we combine the per stream level of 0.3¢-0.5¢ for the recording (to the label/artist side), and the level of 0.08¢-0.13¢ for the song (to the author/publisher side), we end up with an estimated span of 0.38¢-0.63¢ in total value to rights holders per stream, taking into account historic figures.¹⁶

Remember, this is only a retroactive estimate of the total per stream rate that Spotify pays to distributors, labels, PROs and publishers in total, it does not say anything about how much each artist or songwriter receives in the end. Also, it is a global average estimate. It is plausible that rights holders have seen lower, or higher, per stream rates on local markets depending on the specific circumstances of that market.

Using this estimation as a thought experiment, the total economic value of for example Drake's catalogue on Spotify, that has generated 76 billion streams during the time period, could be surmised to amount to roughly \$290-\$480 million, for all the different rights holders connected to Drake's music.

If we use another example from the top 25 streaming artists on Spotify, Coldplay, who have generated 24.5 billion streams during the time period, the total economic value paid from Spotify to the rights holders ought to be roughly \$93-\$166 million.

¹⁴ See for example:

- <https://dittomusic.com/en/blog/how-much-does-spotify-pay-per-stream>
- <https://soundcamps.com/spotify-royalties-calculator>
- <https://soundcharts.com/blog/music-streaming-rates-payouts>
- <https://www.digitalmusicnews.com/2021/03/05/spotify-streams-artists-minimum-wage-by-state>
- <https://blog.discmakers.com/2019/08/what-does-music-streaming-actually-pay>

¹⁵ See for example:

- <https://www.stim.se/en/music-online/pay-stream-values-november-2022>
- <https://www.manatt.com/Manatt/media/Media/PDF/US-Streaming-Royalties-Explained.pdf>

¹⁶ <https://www.musicbusinessworldwide.com/how-much-is-spotify-paying-to-artists/>

It is not only the superstars that generate considerable payouts from Spotify though. There is some evidence that the switch to the streaming economy has led to a larger amount of artists sharing in the pie. In a BPI investigation done on the UK market, a comparison is made of how large a share the top artists had of the overall market in 2022, compared to 2007.¹⁷

In 2007, the top 10 artists made up 10.9% of the overall CD market, while in 2022, the top 10 artists represented 4.9% of the total streaming market. The top 100 artists in 2007 claimed 45.1% of artist album sales, while the top 100 streaming artists represented 19.0% of the streaming market in 2022. In total, 87.8% of album sales in 2007 was related to the top 1,000 artists, while in 2022, top 1,000 artists represented 50.1% of the streaming market.

Although the same kind of investigation has not been made on the Swedish market, it is plausible that the same results can be seen; there are probably more artists than ever that are generating revenues from recorded music. At the same time, there has been an incredible increase in the amount of artists that are releasing music. It is natural that the more artists that are coming into the ecosystem, the more artists will also express dissatisfaction with the remuneration they receive, as the study *Streams & Dreams* (Johansson D., 2022) shows.¹⁸

The streaming economy has also created international opportunities for artists. In the physical paradigm it was difficult to release music for a global audience, in fact, it was mainly larger labels that had the possibility to distribute and market music on a global scale. Streaming has made it possible for artists to find niche audiences anywhere in the world, connecting with fans through DSPs and social media platforms in a way that was not easily done before.

2.2 Earlier studies

Several studies have been made on how the current economic model for music streaming influences revenue distribution from DSPs (Muikku, J. et al., 2017, Page W. & Safir D., 2018, Dimont J, 2018, Pedersen R, 2020, Alaei S. et al., 2020, Hesmondhalgh, D. et al., 2021, Moreau, F. et al., 2022, Meyn J. et al., 2022, among other studies listed in the References section). Some of them have also investigated how a so-called user-centric model would influence payments to the different rights holders.

The general consensus is that the current model leads to a cross-subsidization from users that are generating low amounts of streams, to heavy users that are consuming music above average. The result is that subscriber revenues are moved from casual streamers to heavy streamers, making artists with music that is played over and over again the winners. This is a huge shift from earlier remuneration paradigms in the music industry, where the payment of a music product, for example a CD or an iTunes download, was the same regardless of how much the customer listened to it.

This model also leads to genre cross-subsidization, where genres that tend to generate higher amounts of streams per user (for example because the tracks in general are shorter in time than in other genres), has a much stronger influence over how revenues are distributed than

¹⁷ <https://www.bpi.co.uk/news-analysis/streaming-is-enabling-more-artists-to-flourish-than-ever-before-new-bpi-research-reveals/>

¹⁸ <https://www.iaomusic.org/news/2022/09/15/streams-dreams/>

if the model would have been flat per subscriber based. Certain tracks and genres have a tendency to be repeated a lot, for example some children’s songs, functional or “mood music” for training, meditation, studying, working etc, which are boosted by playlists that are running in the background, as well as music connected to certain youth oriented genres where fans are heavy streamers.

Although a pro rata, or streamshare, model is fair in the sense that each track gets remunerated in comparison to how much all the other tracks have been consumed in that country during one month, all music is not the same. Some music demands a high engagement from the listener, while other music is mainly background sound, but in the current model they are all valued the same as long as they are played at least 30.001 seconds. A stream of brown noise, or an AI piano, is valued the same on the master side as a stream from a progressive metal band or an advanced jazz song, despite their huge differences.

A classical piece might be 15 minutes long, while a pop song might be 3 minutes long, leading to a temporal disadvantage for classical music when the pop song can be consumed five times more than the classical piece. Some music is not as playlist “friendly” as other music, it does not easily fit into the largest playlists being used on the DSPs. Also, recommender systems on most DSPs tend to favor popularity to a high degree, leading to snowballing effects among algorithms and editors, which in turn have decremental effects for those tracks that do not reach the necessary popularity thresholds.

One of the most extensive reports written on the prerequisites for music creators is the UK report *Music Creators’ Earnings in the Digital Era* (Hesmondhalgh D. et al., 2021). In this study, interviews, surveys and data analysis has been made on the UK situation for artists and composers, giving a number of important contributions to contemporary knowledge on the music industry. Some of these results have been used for the simulation part of this study, specifically knowledge on per stream rates and royalty levels.

Earlier studies have highlighted and empirically established the effects of the current economic model, but there is a lack of long term quantitative large scale studies on exactly which artists that have benefitted from the model, and which artists that have not, as well as an assessment of how much revenues different artists have generated.

3. Methodology and data

There are no available charts or public collections of data available for the kind of research that this study aims for. Although the Spotify Web API provides many possibilities for extracting interesting data from the Spotify databases, it is not possible to extract accumulated statistics for each artist, or use the API to receive the number of streams for each track connected to a specific artist ID.

Instead, artists were in the beginning of the research process manually identified by a joint venture between music industry professionals, researchers, students, artists, musicians and other music related people, during October–December 2022 (participants are mentioned in the acknowledgement section at the end of the paper).

The Spotify ID (URI) of each artist was then used to retrieve a list of all tracks registered to that specific URI, which was used to scrape the web player for each track's total number of streams. Global streamcount was used, and the genre of each artist was identified.

During the process, Spotify became aware of the study, and provided additional data directly from their databases, together with a more detailed genre taxonomy that has been useful for understanding the genre composition among the studied artists during the time period.

All data was gathered in a repository, cleaned, validated towards externally collected reference data to control potential biases, and manually verified before the analysis began. In total, 267,824,193,572 streams have been included. All artist ID's that were tagged as being of Swedish origin were identified, and all artists that had accumulated more than 1 million streams since October 2008 were chosen. The main reason for setting a threshold at 1 million streams was to simplify the analysis and limit the amount of data. In total, 8,339 artists passed the >1 mil threshold.

Many of these artists consist of more than one musician, since bands in different genres usually have several members that are all gathered under the same artist brand. A sample analysis gives a factor of 2.25, which means that roughly 18,800 Swedish featured musicians are included (not taking into account large orchestras, choirs, session musicians, and non-featured musicians often taking part in recordings).¹⁹ As a comparison, the Swedish collecting society for artists, SAMI (Swedish Artists and Musicians Interest Organisation) is collecting the public performance revenues on behalf of all Swedish artists and musicians, ca 50,000 musicians are registered in total. During 2022, 13,400 directly connected artists and musicians received payment from SAMI, of which the majority are of Swedish origin.²⁰

A qualitative analysis of the artists included in the dataset shows that the clear majority of all Swedish artists that have been professional, or professionally aspiring, during the time period 2008–2022 can be found among the top 2,000 artists. The threshold for becoming a top 2,000 artist during this time period was 13.4 million streams, and the genre analysis has mainly been done on these top 2,000 artists.²¹ Although there might be examples of new and upcoming artists that have generated considerable streamcount during a short time frame preceding the closing of the dataset, the 2,000 artists sample is adequate for performing a genre analysis for the time period.

There are examples of double streamcount registrations found among some artists. For example, Björn Skifs and Blue Swede are two different artists, but they both have the track “Hooked on a feeling” assigned, since Björn Skifs was the singer of the band. Also, when artists are “featuring” other artists in collaborations, the streamcount is paired, for example the track “Without You”, which is both attributed to Avicii and Sandro Cavazza, or “I am an Albatroz”, which is assigned to both AronChupa and Little Sis Nora. However, this artifact was not judged to be of sufficient importance to the overall purpose of the study.

¹⁹ A featured artist or musician is a performer that is inherently a part of the artist brand, for example a guitarist in a rock band, while a non-featured artist or musician is someone that is performing on the recording but is not a regular part of the artist brand, for example studio musicians, that most of the time do not receive any royalties from streaming platforms.

²⁰ https://www.sami.se/wp-content/uploads/2023/04/A%CC%8AR_2022_WEBB.pdf

²¹ A limited version of the dataset for the top 2,000 Swedish artists is available at: <https://docs.google.com/spreadsheets/d/1RNa0zdZOwwwvMMLmjcLwMAXnF65049IDScbHpgaEdiE>

To a large extent, non-music audio and the artists creating such audio, has been filtered out from the data analysis, such as the sound of rain, waterfalls, animals of all kinds, babies, wind, fireworks, trees, noise in different colors, cars, people eating, people chattering, and all other sounds available on the platform. There are even popular tracks of compressor air pumps inflating and deflating bicycle tires, factory sounds, snoring, coughing, basically every sound one can imagine in the world is available on some corner of Spotify. These are not incorporated in the main study, instead, a separate analysis of non-music tracks has been conducted.

4. Breakdown and analysis

Beginning with those Swedish artists that have accumulated the largest streamcount between October 2008–October 2022, there are 29 artists that have generated more than 1 billion streams in total. In the below table the “start_year” is included, which is when the artist first started to release music on Spotify.

Some of the below artists have been on Spotify since the beginning, they have a catalogue older than 2008, or started releasing music during that year, while some of them started their career later. In the analysis, the start year of Spotify is used as the earliest year possible. Even though the artist might have released music before Spotify was launched, the purpose of the study is to analyze Spotify streams specifically, hence, no streams on Spotify could have been generated before 2008.

The genre assigned to each artist is the main genre in the Spotify genre taxonomy, it is the genre that Spotify has chosen as the primary genre for each artist. The “indie” genre is not connected to label affiliation, it is based on musicological preferences.

pos	artist_name	streamcount	artist_genre	start_year
1	Avicii	13,192,619,970	dance/electronic	2008
2	Zara Larsson	7,642,200,838	pop	2013
3	Tove Lo	5,790,894,322	pop	2014
4	ABBA	5,268,763,979	pop	2008
5	Alesso	4,956,483,590	dance/electronic	2010
6	Galantis	4,692,496,692	dance/electronic	2012
7	Swedish House Mafia	2,590,444,269	dance/electronic	2010
8	Sabaton	2,522,254,182	metal	2008
9	Axwell \wedge Ingrosso	2,374,870,773	dance/electronic	2014
10	Sandro Cavazza	1,966,307,020	dance/electronic	2016
11	A7S	1,951,736,976	dance/electronic	2019
12	Roxette	1,894,072,785	rock	2008
13	Mike Perry	1,880,260,874	dance/electronic	2016
14	Lykke Li	1,755,617,320	pop	2008
15	Icona Pop	1,731,838,759	pop	2007
16	NOTD	1,602,633,794	pop	2017

17	Ghost	1,569,420,560	rock	2010
18	shy martin	1,417,049,949	pop	2017
19	José González	1,333,447,636	ambient/newage	2008
20	Veronica Maggio	1,326,764,523	pop	2008
21	John Martin	1,326,587,761	dance/electronic	2013
22	In Flames	1,217,084,886	metal	2008
23	Robyn	1,195,074,115	pop	2008
24	Vigiland	1,187,354,063	dance/electronic	2015
25	First Aid Kit	1,118,282,108	pop	2008
26	Håkan Hellström	1,114,497,466	indie	2008
27	Sebastian Ingrosso	1,095,020,285	dance/electronic	2008
28	Axwell	1,082,331,948	dance/electronic	2008
29	Hov1	1,013,887,966	hiphop	2015

Identifying the year of when the artist started to generate streams is important for the revenue simulation part of the study. An artist that has accumulated 1 billion streams during the last 5 years has generated a much higher per year payment, or per month payment, during those years, than an artist that has accumulated 1 billion streams since 2008. Especially when analyzing certain genre trends in the latest years, it is meaningful to take into account over how long a time period the streamcount has been generated.

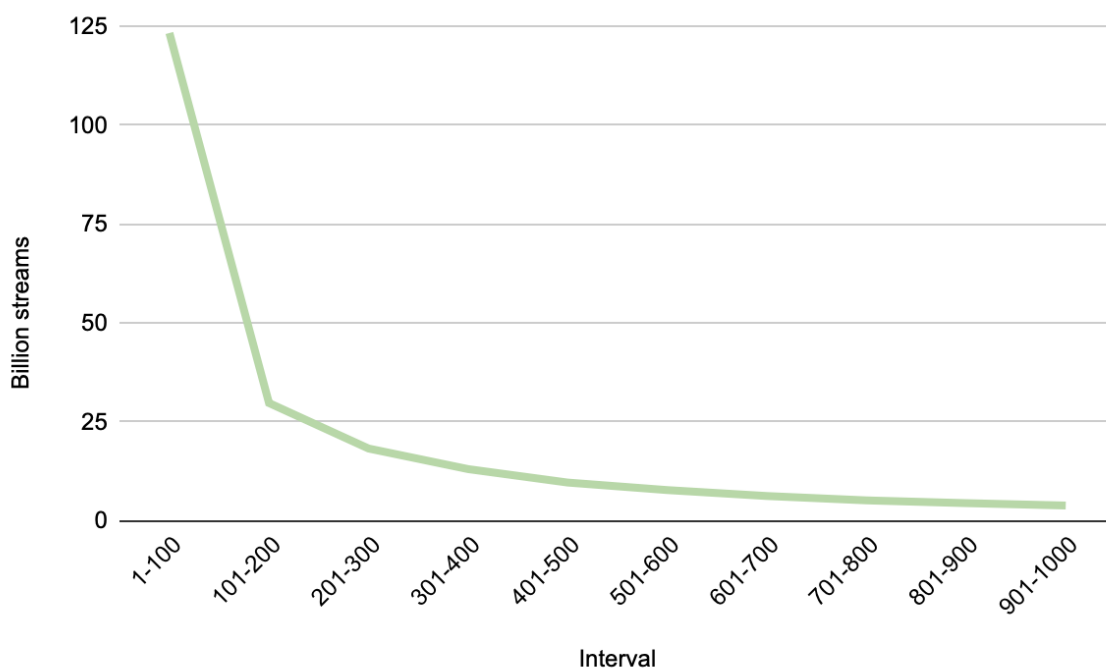
The above 29 artists have in total generated 77.8 billion streams, which represents 29% of the overall streamcount of 267.8 billion streams. The two most streamed Swedish artists, Avicii and Zara Larsson stand out, having generated more than 20 billion streams combined. The remainder of the top 100 list is as follows:

pos	artist_name	streamcount	artist_genre	start_year
30	NEIKED	977,226,495	pop	2015
31	Yung Lean	966,317,220	hiphop	2013
32	Europe	949,243,075	rock	2008
33	Einár	924,451,464	hiphop	2018
34	Little Dragon	915,617,242	indie	2008
35	kent	903,891,828	indie	2008
36	LÉON	893,462,861	pop	2015
37	AronChupa	867,552,263	pop	2014
38	Snoh Aalegra	854,200,291	r&b	2014
39	Miriam Bryant	852,444,210	pop	2012
40	Randy	789,347,736	hiphop	2015
41	Lars Winnerbäck	778,262,773	pop	2008
42	Eric Prydz	773,973,254	dance/electronic	2008
43	Little Sis Nora	760,624,752	pop	2014

44	Miss Li	751,459,551	pop	2008
45	Molly Sandén	741,071,205	pop	2008
46	The Cardigans	739,100,942	pop	2008
47	Ace of Base	737,875,695	dance/electronic	2008
48	Dree Low	735,894,627	hiphop	2016
49	Mohombi	731,365,662	pop	2010
50	Miike Snow	726,010,975	indie	2009
51	Bonn	711,121,050	dance/electronic	2018
52	Benjamin Ingrosso	710,676,202	pop	2015
53	Amaranthe	697,825,653	metal	2011
54	The Mayries	692,298,238	pop	2016
55	Amon Amarth	686,589,893	metal	2008
56	Otto Knows	685,002,890	dance/electronic	2009
57	Seinabo Sey	673,192,265	pop	2014
58	Jubël	672,148,437	pop	2017
59	Laleh	669,749,315	pop	2008
60	Basshunter	668,725,290	pop	2008
61	Dani M	667,620,603	hiphop	2012
62	Björn Skifs	635,282,923	pop	2008
63	Victor Leksell	625,144,658	pop	2018
64	Bladee	621,068,860	hiphop	2014
65	Tove Styrke	596,423,503	pop	2010
66	John De Sohn	595,022,670	dance/electronic	2011
67	Tallest Man On Earth	591,995,898	rock	2010
68	CAZZETTE	587,433,925	dance/electronic	2013
69	Yasin	579,040,035	hiphop	2015
70	Ricky Rich	576,102,644	hiphop	2017
71	Astrid Lindgren	564,660,225	children	2008
72	Steve Angello	560,951,950	dance/electronic	2008
73	Juliander	554,446,341	pop	2017
74	Melissa Horn	553,743,890	pop	2008
75	Clara Mae	551,387,629	pop	2016
76	Petter	551,302,691	hiphop	2008
77	Lucas Estrada	549,821,223	dance/electronic	2015
78	Hearts & Colors	548,948,769	pop	2015
79	Johannes Bornlöf	548,772,172	ambient/newage	2015
80	KIDDO	546,811,663	pop	2017
81	Norlie & KKV	544,364,203	pop	2011
82	Peter Bjorn and John	529,550,230	indie	2008

83	Blue Swede	522,366,836	pop	2008
84	Darin	518,838,645	pop	2008
85	flora cash	514,010,489	indie	2013
86	NEIMY	513,772,431	dance/electronic	2017
87	Jireel	511,454,153	hiphop	2015
88	Eagle-Eye Cherry	504,057,689	pop	2008
89	Lasse Stefanz	491,031,057	pop	2008
90	The Hives	486,640,183	rock	2008
91	Peter Sandberg	484,406,582	ambient/newage	2015
92	Timbuktu	475,485,427	hiphop	2008
93	Agnes	469,228,567	pop	2008
94	Z.E	460,963,705	hiphop	2017
95	Sofia Karlberg	454,389,893	pop	2014
96	Ant Wan	450,983,003	hiphop	2018
97	Vargas & Lagola	445,747,131	pop	2017
98	Alfons	445,041,753	dance/electronic	2014
99	Magnus Ugglä	430,249,714	pop	2008
100	Sara Farell	429,134,072	pop	2015

When analyzing how large a share of total streamcount different position intervals has, one can see that the top 100 most streamed artists have a high share of the total streamcount, which is not surprising, although the share is not as dominating as one could imagine. There is naturally a power law distribution in the overall dataset, although the x-axis is difficult to represent visually in a trustworthy way on limited space, when the number of data points is so large.



interval	streamcount	%_of_total
1–100	123.3 billion	46.2%
101–200	29.8 billion	11.1%
201–300	18.3 billion	6.7%
301–400	13.1 billion	4.9%
401–500	9.7 billion	3.6%
501–600	7.8 billion	2.9%
601–700	6.3 billion	2.4%
701–800	5.2 billion	1.9%
801–900	4.5 billion	1.7%
901–1000	3.9 billion	1,5%
1001–8339	45.9 billion	17.1%

442 artists have generated more than 100 million streams, 760 artists have generated more than 50 million streams, and 2,395 artists have generated more than 10 million streams.

Continuing the analysis of the top 100 streaming artists gives a somewhat interesting picture. Ignoring the mega stars in streaming heaven, the likes of Avicii, Zara Larsson, ABBA, Tove Lo and Swedish House Mafia, many of the largest streaming artists are not well known among the general public. Some are of course quite well recognised within their own genre, or “fan bubble”, but would not be considered as “famous” artists in Sweden.

Artists like Lucas Estrada, Johannes Bornlöf, Peter Sandberg, Raaban, Bonn, The Mayries, Asme, August Wilhelmsson, AronChupa, Dani M, Snoh Aalegra, Rasmus Gozzi, Granular, LUCHS, Ehrling, Ricky Rich, A7S, flora cash, Young Lean, Lil Sis Nora, Maher Zain, ODZ, Mangoo, Medina, Kasbo, Cazzette, NEIMY, Z.E, Nomy, Helion, Elina, Johnning, Bladee, Juliander, Hearts & Colors, Sara Farell, among others, are all generating massive streamcounts. They are of course well recognised within their own “universes”, but the general public would probably not recognize them on the streets of Sweden, at least on a regular street. They could probably go to the grocery store around the corner to buy milk in cozy pants and a cap without anyone paying attention.

At the same time, many artists that could be called contemporary legacy artists in Sweden, many of them even considered to be a sort of cultural heritage on the Swedish music scene, are not even close to the streamcounts that the above artists generate, some of them are even having problems qualifying for top 1,000 artists.

Artists like Lisa Ekdahl, Lisa Nilsson, Sven-Ingvars, Markoolio, Markus Krunegård, Vikingarna, Helen Sjöholm, Peter LeMarc, Thåström, Imperiet, Ebba Grön, Lena Philipsson, Anna Ternheim, Eldkvarn, Sanna Nielsen, Tommy Nilsson, Uno Svenningsson, Hasse Andersson, Orup, Sophie Zelmani, The Hellacopters, The Ark, Eva Dahlgren, Niklas Strömstedt, Kikki Danielsson, Anna Bergendahl, Tomas Andersson Wij, Thorleifs, Backyard Babies, Lisa Miskovsky, Magnus Carlson, and many more, are found a long way down the list.

All of these artists are well known in Sweden, many of them are populating TV and radio frequently, and are considered to be a part of the artistic “elite” in the general public's eye. Yet, as we will see in the economic simulations, many of them can probably not survive on the streams generated on Spotify when the revenues trickle down through the system.

Some of these artists' complaints have been raised quite harshly during the latest years, and fairly so, the streaming model is simply not working for them. Behind the scenes, even more of these artists, not only legacy artists but also new artists in marginalized genres, as well as non-featured musicians, have simply given up and do not want to talk about it publicly, considering the risk of being viewed “greedy” by both the general public and among fans.

So, what do most of these artists have in common?

They mainly create and perform music in Swedish, for a local audience that are not heavy consumers on streaming platforms, and/or are not a part of the three youth-culture genre waves that Sweden has seen since the release of Spotify, the house/electronic genre wave, the local hip hop/rap genre wave, and during the last two years, the epadunk genre wave.

The market for Swedish lyrics is small, it is basically Sweden, Norway, and to some extent Finland and Denmark. Even though Spotify is dominating these countries, and a large portion of the whole population use the platform, it is often not enough to create the needed streamcount volume. Still though, these artists are usually generating considerable revenues from concerts and radio, since many Swedes are eager to see them live, and the largest radio stations air their music frequently.

What do most of the former “unknown” artists, that are generating massive streamcounts, have in common?

They are mainly operating on a global market (especially USA) in the pop or dance/electronic genre, with English lyrics, or are creating music in the genre ambient/newage, and/or have mainly built their career post 2010. They are simply artists well adjusted for the global streaming paradigm, they are “streaming artists”. They are often not on Swedish television, they are to a large extent seldom aired on the radio, not written about in the newspapers, but they generate 5–10 times more streams than those artists that are usually viewed as the most well known artists in Sweden.

There seems to be an obvious dichotomy between the perception of what is a “successful” artist, and the revenues generated through streaming on Spotify. This perception of course includes the artist's view of themselves, where many of the well known artists can sign autographs wherever they go, while their streaming accounts echo empty.

One could argue that the streaming economy has forced into existence a new breed of artists that are highly successful on Spotify, because they are operating under a heavy consumption logic based on playlist ecosystems and virtual fan bubbles on a global scale, rather than on a local scale, or are a part of contemporary popular heavy streamcount youth-genres like electronic/dance, Swedish hip hop or epadunk.

Of course, there are some artists that are mainly active in the Swedish language that are generating large streamcounts as well; they are mainly the pop superstars or hip hop artists. Here are the top 25 Swedish artists mainly performing music in Swedish:

pos	artist_name	streamcount	artist_genre	year
20	Veronica Maggio	1,326,764,523	pop	2008
26	Håkan Hellström	1,114,497,466	indie	2008
29	Hov1	1,013,887,966	hiphop	2015
33	Einár	924,451,464	hiphop	2018
35	kent	903,891,828	indie	2008
39	Miriam Bryant	852,444,210	pop	2012
41	Lars Winnerbäck	778,262,773	pop	2008
44	Miss Li	751,459,551	pop	2008
45	Molly Sandén	741,071,205	pop	2008
48	Dree Low	735,894,627	hiphop	2016
59	Laleh	669,749,315	pop	2008
61	Dani M	667,620,603	hiphop	2012
63	Victor Leksell	625,144,658	pop	2018
69	Yasin	579,040,035	hiphop	2015
71	Astrid Lindgren	564,660,225	children	2008
74	Melissa Horn	553,743,890	pop	2008
76	Petter	551,302,691	hiphop	2008
81	Norlie & KKV	544,364,203	pop	2011
89	Lasse Stefanz	491,031,057	pop	2008
92	Timbuktu	475,485,427	hiphop	2008
94	Z.E	460,963,705	hiphop	2017
96	Ant Wan	450,983,003	hiphop	2018
99	Magnus Ugglå	430,249,714	pop	2008
104	Eddie Meduza	415,708,877	pop	2008
105	Newkid	413,616,583	pop	2010

Continuing the analysis of the remaining part of the top 2,000 artists, where the absolute majority of professional or professionally aspiring Swedish artists resides, shows a somewhat more diverse picture.

The Spotify genre taxonomy has several layers in trying to define which genre a certain artist is active in, but there is always one genre that is the dominant, or main genre. The problem with all genre taxonomies is that they are never perfect. An artist can be more of a rock artist in the beginning of his or her career, move into the pop genre for a while, and then go back to the rock genre again. Another artist might be focused on jazz music while also releasing folk music. Which genre is best describing the artist?

For example, the Swedish band kent has been assigned “indie” as the main genre affiliation on Spotify. For everyone acquainted with kent, the genre “indie” does not give the whole picture of all the music that the band has released during many years. The genres “pop” and “rock” could also be assigned to their music. Another example is the band Sven-Ingvars, that have been assigned “pop” as the main genre in the Spotify database. Sven-Ingvars have been releasing a large amount of tracks during their career, and some of them could indeed be labeled as “pop”, but the perception among the general public is probably that the band is active in the genre “dansband”, which is a local music genre that has been very popular in the Scandinavian countries for many years. Or First Aid Kit, that is categorized as being “pop”, although many would probably label their music as “folk” and/or “country”.

Also, many of the artists that have generated more than 1 million streams since 2008 are not active in any of the larger genres, and have not been assigned any main genre at all in the Spotify taxonomy. In total, 1,649 artists of the 8,339 artists in the full dataset did not have a main genre assigned to them.

As mentioned earlier, the analysis shows that top 2,000 is a valid threshold for all artists that either are, or are trying, to live off their music. The top 2,000 artists were therefore used for the main part of the genre analysis. For those artists that were missing a genre affiliation, external databases were used to find the correct genre, mainly Everynoise, MusicBrainz and Wikipedia, and in those cases where no genre affiliation could be identified, a manual audio analysis was made. The following are the top 25 Swedish artists active in the genre of *ambient/newage* music, a genre that could best be described as soft easy listening piano or keyboard music with ambient sounds.

pos	artist_name	streamcount	artist_genre	start_year	label
79	Johannes Bornlöf	548,772,172	ambient/newage	2015	Epidemic Sound
91	Peter Sandberg	484,406,582	ambient/newage	2015	Epidemic Sound
131	Charles Bolt	327,361,881	ambient/newage	2017	Firefly Entertainment
136	LUCHS	321,196,026	ambient/newage	2016	Epidemic Sound
140	August Wilhelmsson	313,238,375	ambient/newage	2016	August Wilhelmsson
164	Ever So Blue	255,082,213	ambient/newage	2019	Epidemic Sound
186	Rand Aldo	228,851,805	ambient/newage	2018	Epidemic Sound
194	Alan Ellis	223,402,426	ambient/newage	2016	Epidemic Sound
255	Henry Smith	177,685,415	ambient/newage	2018	Columbia/Sony
291	Franz Gordon	155,133,894	ambient/newage	2017	Epidemic Sound
328	Joseph Beg	142,091,121	ambient/newage	2018	Epidemic Sound
419	Jakob Ahlbom	104,708,342	ambient/newage	2018	Epidemic Sound
426	Claes Nilsson	103,030,193	ambient/newage	2017	Firefly Entertainment
438	Spirit Minds	100,843,726	ambient/newage	2019	Firefly Entertainment
449	Ave Air	95,784,514	ambient/newage	2018	Epidemic Sound
	Carbon Based				
461	Lifeforms	93,431,793	ambient/newage	2008	Leftfield Records
470	Robin Bennich	92,055,711	ambient/newage	2012	Robin Bennich

484	IFEELU	89,485,516	ambient/newage	2019	Firefly Entertainment
490	Cora Zea	88,014,650	ambient/newage	2019	Epidemic Sound
494	Library Tapes	87,047,052	ambient/newage	2008	1631 Recordings
504	Ström	86,165,993	ambient/newage	2019	Epidemic Sound
512	S.A. Karl	85,290,928	ambient/newage	2018	Epidemic Sound
514	Jesse Nielsen	85,207,445	ambient/newage	2019	Firefly Entertainment
549	Solar Fields	77,377,199	ambient/newage	2008	droneform records
552	Oliver Évilo	77,026,567	ambient/newage	2019	Firefly Entertainment

Epidemic Sound and Firefly Entertainment are the two dominant labels in the above table, and both of these companies have a somewhat challenged role in the Swedish music industry, Epidemic Sound because of their buyout practices²², and Firefly Entertainment because of the “fake” artist stories that have surfaced²³.

But, these labels and artists have found a specific niche on Spotify, a niche that is highly playlist-driven, where users are focusing more on the context of the music being played rather than on who is performing it. This is of course nothing unique for these two companies, most labels are releasing mood music, and there are several other actors that have made a fortune in this genre. Nevertheless, only one of the larger labels is for example represented among the top artists in the above table.

What is also notable is that most of these artists started to release music during the latest years, meaning that the earnings for these streams have been generated during a shorter time frame than for many other artists. In total, the accumulated streamcount for the genre ambient/newage was 8.232 billion.

Another interesting genre to analyze is the *metal* genre. Many Swedish metal bands have for a long time been regarded as forerunners internationally, and the Swedish metal export is a well known phenomena. The Gothenburg metal scene has for example often been put forward as a unique environment for metal bands.

Looking at the top 25 Swedish artists in the metal genre, it becomes obvious that it is mainly the few top bands that are generating very large streamcounts, quickly the streamcount decreases to lower levels. In total, the metal genre accumulated a streamcount of 9.862 billion in the dataset.

pos	artist_name	streamcount	artist_genre	start_year	label
8	Sabaton	2,522,254,182	metal	2008	Nuclear Blast
22	In Flames	1,217,084,886	metal	2008	Nuclear Blast
53	Amaranthe	697,825,653	metal	2011	Nuclear Blast
55	Amon Amarth	686,589,893	metal	2008	Metal Blade Records
109	Opeth	398,184,035	metal	2008	Atomic Fire

²² <https://www.musikerforbundet.se/aktuellt/epidemic-sound-en-affarsmodell-som-inte-borde-existera-under-2000-talet>

²³ <https://www.dn.se/kultur/dn-avslojar-svenska-fejkartisterna-som-tog-over-pa-spotify-storre-an-robyn>

115	Arch Enemy	374,594,353	metal	2008	Century Media
122	HammerFall	356,343,191	metal	2008	Napalm Records
166	Soilwork	253,394,396	metal	2008	Nuclear Blast
178	Meshuggah	236,724,364	metal	2008	Atomic Fire
217	Avatar	210,265,998	metal	2008	Black Waltz
240	Brothers of Metal	188,687,647	metal	2017	AFM Records
284	Katatonia	159,032,928	metal	2008	Napalm Records
294	Dark Tranquillity	153,915,618	metal	2008	Century Media
378	Pain	118,875,883	metal	2008	Nuclear Blast
413	Therion	106,587,492	metal	2008	Nuclear Blast
443	Soen	99,999,012	metal	2012	Silver Lining Music
497	Dream Evil	86,776,212	metal	2008	Century Media
541	Machinae Supremacy	78,853,229	metal	2008	Hubnester Records
567	At The Gates	74,509,436	metal	2008	Century Media
608	Bloodbound	67,526,740	metal	2008	AFM Records
616	Deathstars	66,704,976	metal	2008	Nuclear Blast
628	Scar Symmetry	65,473,185	metal	2008	Nuclear Blast
633	Bathory	64,752,289	metal	2008	Black Mark
681	Evergrey	59,312,775	metal	2008	Napalm Records
698	The Unguided	58,386,810	metal	2011	Napalm Records

In this genre, the label distribution is not as homogenous as in the ambient/newage genre, although one can see that a few labels are dominating. Worth mentioning is also that most of these bands have been active for a long time and might have changed labels multiple times. For this analysis, the label of the last release has been used. And again, the start_year on Spotify is used, not when the band started to release music in general. Many of these metal bands have been active since the 1990s.

Continuing to one of the genres that has generated the most streams during the latest years, *hip hop*, we can see that some of the Swedish hip hop artists are releasing music on their own independent labels, but several of them are also collaborating with larger labels. As mentioned earlier, the majority of these top 25 artists are performing lyrics in Swedish, although there are a few examples of artists performing in other languages. Hip hop constitutes for 11.51% of the overall streamcount in the dataset, 28 billion streams.

pos	artist_name	streamcount	artist_genre	start_year	label
29	Hov1	1,013,887,966	hiphop	2015	Universal Music
31	Yung Lean	966,317,220	hiphop	2013	World Affairs
33	Einár	924,451,464	hiphop	2018	Einár
40	Randy	789,347,736	hiphop	2015	Roses and Wine Music
48	Dree Low	735,894,627	hiphop	2016	Streetlife Music
61	Dani M	667,620,603	hiphop	2012	GMG Sweden

64	Bladee	621,068,860	hiphop	2014	YEAR0001
69	Yasin	579,040,035	hiphop	2015	GG, BRKN Records
70	Ricky Rich	576,102,644	hiphop	2017	Warner Music
76	Petter	551,302,691	hiphop	2008	Baba Recordings
87	Jireel	511,454,153	hiphop	2015	Warner Music
92	Timbuktu	475,485,427	hiphop	2008	Universal Music
94	Z.E	460,963,705	hiphop	2017	Team Platina
96	Ant Wan	450,983,003	hiphop	2018	Ant Wan
119	Asme	364,577,671	hiphop	2017	BL
127	Tjuvjakt	342,571,669	hiphop	2013	Universal Music
130	Oskar Linnros	330,296,409	hiphop	2010	Universal Music
133	ODZ	325,128,654	hiphop	2016	ODZ
143	Daniel Adams-Ray	304,331,214	hiphop	2010	Universal Music
155	1.Cuz	279,366,397	hiphop	2018	MR, Warner e.g.
158	ADAAM	276,822,363	hiphop	2018	ADAAM, Universal e.g.
160	Adel	269,831,237	hiphop	2017	Fivestar Records
161	Greekazo	266,211,909	hiphop	2019	Warner, Universal e.g.
162	Kartellen	263,332,035	hiphop	2009	Soblue Music Group
168	Labyrint	250,306,101	hiphop	2009	Redline, Universal e.g.

The genre assigned to these artists is, as earlier mentioned, based on Spotify's own genre taxonomy. There might be opinions as to whether for example Oskar Linnros and Daniel Adams-Ray have been hip hop artists during the latest years, but since that is what Spotify assigned to them because of their artistic history, that is what is analyzed.

Moving on to the *jazz* genre, it becomes evident how poorly the genre has performed on Spotify since the start in 2008. The total streamcount of 2.1 billion streams constitutes 0.88% of the overall streamcount in the dataset.

Again, the Spotify genre taxonomy is not perfect, there are a few artists in the dataset that might not be deemed as mainly jazz artists, although parts of their artistry has been related to the genre, such as Fred Åkerström, Evert Taube and Pugh Rogefeldt. In the below table those artists have been excluded even though they are assigned to the jazz genre by the Spotify genre taxonomy.

pos	artist_name	streams	artist_genre	start_year	label
288	Koop	157,207,843	jazz	2008	Diesel
396	Esbjörn Svensson Trio	113,481,314	jazz	2008	ACT Music
416	Jan Johansson	105,566,245	jazz	2008	ACT Music, Heptagon
425	Nils Landgren	103,275,507	jazz	2008	ACT Music
604	Joel Lyssarides	68,203,543	jazz	2018	ACT Music
644	Georg Riedel	63,060,156	jazz	2008	Multiple labels

645	Lars Danielsson	62,722,967	jazz	2008	ACT Music
668	Totta Näslund	60,470,293	jazz	2008	Woah Dad!
694	Dirty Loops	58,560,958	jazz	2014	Dirty Loops, Verve e.g.
727	Oakwood Station	54,491,817	jazz	2016	Epidemic Sound
801	Jan Lundgren	47,944,920	jazz	2008	Multiple labels
860	Freddie Wadling	44,417,940	jazz	2008	Warner Music
903	Lill Lindfors	41,417,503	jazz	2008	Warner Music
909	Sven-Bertil Taube	40,842,425	jazz	2008	Universal Music e.g
948	Palle Danielsson	39,244,238	jazz	2008	Multiple labels
1018	Niklas Fernqvist	35,806,577	jazz	2012	Naxos
1083	Stefan Sundström	32,734,218	jazz	2008	Multiple labels
1088	Bobby Tucker Singers	32,447,308	jazz	N/A	N/A
1131	Nils Landgren Funk Unit	30,795,087	jazz	2008	ACT Music
1167	Fredrika Stahl	29,520,963	jazz	2008	Multiple labels
1281	Emil Brandqvist Trio	25,612,603	jazz	2013	SKIP Records
1308	Viktoria Tolstoy	24,804,010	jazz	2008	ACT Records
1333	Ida Sand	24,131,587	jazz	2008	ACT Records
1335	Svante Thuresson	24,044,744	jazz	2008	Crown Jewels/Plugged
1345	Magnus Öström	23,728,196	jazz	2011	Jazzland Recordings

The second largest genre in the dataset, after pop, is *dance/electronic*, with 27% of overall streamcount. The top 25 Swedish artists are:

pos	artist_name	streamcount	artist_genre	start_year	label
1	Avicii	13,192,619,970	dance/electronic	2008	Universal, Pophouse
5	Alesso	4,956,483,590	dance/electronic	2010	Multiple labels
6	Galantis	4,692,496,692	dance/electronic	2012	Multiple labels
	Swedish House				
7	Mafia	2,590,444,269	dance/electronic	2010	Multiple labels
9	Axwell & Ingrosso	2,374,870,773	dance/electronic	2014	EMI, Universal e.g.
10	Sandro Cavazza	1,966,307,020	dance/electronic	2016	Universal Music e.g.
11	A7S	1,951,736,976	dance/electronic	2019	A7S Records e.g.
13	Mike Perry	1,880,260,874	dance/electronic	2016	DF Records e.g.
21	John Martin	1,326,587,761	dance/electronic	2013	Universal Music e.g.
24	Vigiland	1,187,354,063	dance/electronic	2015	Universal Music e.g.
27	Sebastian Ingrosso	1,095,020,285	dance/electronic	2008	EMI, Universal e.g.
28	Axwell	1,082,331,948	dance/electronic	2008	Universal Music e.g.
42	Eric Prydz	773,973,254	dance/electronic	2008	Virgin, Pryda Presents
47	Ace of Base	737,875,695	dance/electronic	2008	Playground Music
51	Bonn	711,121,050	dance/electronic	2018	Multiple labels

56	Otto Knows	685,002,890	dance/electronic	2009	Universal Music e.g.
66	John De Sohn	595,022,670	dance/electronic	2011	Universal Music e.g.
68	CAZZETTE	587,433,925	dance/electronic	2013	Multiple labels
72	Steve Angello	560,951,950	dance/electronic	2008	Multiple labels
77	Lucas Estrada	549,821,223	dance/electronic	2015	Multiple labels
86	NEIMY	513,772,431	dance/electronic	2017	NEIMY, DGTLEBEATS
98	Alfons	445,041,753	dance/electronic	2014	Universal Music e.g.
111	Kasbo	382,654,864	dance/electronic	2014	Multiple labels
114	Dr. Alban	378,797,547	dance/electronic	2008	BMG
116	Dada Life	374,114,596	dance/electronic	2013	Universal Music e.g.

An overview of how the different genres in the dataset have performed from a streamcount perspective shows that three genres have a massive dominance: pop, dance/electronic and hip hop, that together represent close to 80% of overall streamcount.

genre	artists	share	streamcount	share
pop	732	36.6%	99,623,312,103	40.87%
dance/electronic	356	17.8%	66,348,667,149	27.22%
hiphop	297	14.85%	28,058,434,660	11.51%
rock	116	5.8%	12,157,392,147	4.99%
indie	99	4.95%	9,158,133,270	3.76%
ambient/newage	97	4.85%	8,232,517,987	3.38%
children	85	4.25%	4,646,252,132	1.91%
metal	79	3.95%	9,862,060,233	4.05%
jazz	58	2.9%	2,150,785,548	0.88%
classical	23	1.15%	747,763,078	0.31%
reggae	19	0.95%	804,056,967	0.33%
r&b	16	0.8%	1,393,513,788	0.57%
religious	6	0.3%	164,783,005	0.068%
soundtrack	5	0.25%	132,771,632	0.054%
blues	3	0.15%	56,761,989	0.023%
country	3	0.15%	48,187,471	0.02%
latin	3	0.15%	87,134,856	0.036%
spoken/comedy	2	0.1%	52,042,315	0.021%
folk	1	0.05%	15,129,970	0.0062%

Although a massive dominance for these three genres is not something surprising, this data gives quantitative evidence on how large the dominance is. Artists that are active in one of the top three genres in total constitute for 69.25% percent, and have a total streamshare of 79.6%.

The dance/electronic genre has an artist share of 17.8%, but the genre has generated 27.22% of total streamcount during the period. This can be explained by the inherent property of the genre as being global, and to a large extent based on English lyrics, leading to comparably fewer artists generating more streams. This also means that the genre has an economic cross-subsidization effect on other genres.

Inversely, the genre jazz has an artist share of 2.9%, while only a 0.88% share of total streamcount. The same goes for genres classical and children, they have a much lower total streamcount share than their artist share. The hip hop genre has an artist share of 14.85%, and a streamcount share of 11.51%, which means that the genre also underperforms in streamcount compared to how many artists that are assigned to it. This can be explained by the fact that most Swedish hip hop artists perform in the Swedish language, which naturally pulls down the streamcount given the nature of the limited market.

Although Swedish artists/bands in the metal genre have received a lot of attention during the latest years, the accumulated figures for the genre shows that it is not to be considered one of the top genres regarding the number of streams, as only 4.05% of total streamcount was related to that genre.

Besides the high level genre analysis, one can focus upon how different artists in subgenres, for example the new Swedish genre epadunk, which was not originally included in the Spotify genre taxonomy. This is a genre that has received massive amounts of streams after the dataset was closed on Nov 1, 2022, therefore an additional data gathering was made for these artists, in March 2023. A qualitative analysis of the largest epadunk playlists on Spotify have been used as selector. Some of the artists have doubled their streamcounts between the end of October 2022 and March 2023.

artist_name	streamcount	artist_genre	start_year
Ringnes-Ronny	552,936,636	epadunk	2016
Rasmus Gozzi	470,617,617	epadunk	2016
Kuselofte	275,960,720	epadunk	2017
Bolaget	192,413,708	epadunk	2019
De Vet Du	187,432,906	epadunk	2012
Elov & Beny	143,641,612	epadunk	2008
Hooja	123,850,744	epadunk	2021
FRÖKEN SNUSK	120,744,562	epadunk	2021
Sofie Svensson & Dom Där	80,597,335	epadunk	2017
Kåren	56,362,173	epadunk	2020
250 kg kärlek	51,112,481	epadunk	2008
DJ FITTE	40,315,147	epadunk	2018
Örnen	33,921,009	epadunk	2019
Greta Tuborg	18,183,024	epadunk	2020
Raggarligan	16,271,321	epadunk	2021
NINE	15,722,120	epadunk	2020

Most of these artists are not signed to any of the common large Swedish labels and could for all practical purposes be regarded as DIY. They have tapped into a cultural phenomenon that has become very popular, mainly in the rural parts of the country during the last two years. One could even say that they are a fundamental part of this culture since youths in the age of 15–18 years are streaming these songs over and over again when riding their so-called A-tractor, or EPA-tractor, slowly through the towns of Sweden.

Returning to the earlier described prerequisites for the streaming economy, this is an example of how heavy consumers can influence the distribution of streaming revenues so that revenues are moving from artists that have casual listeners to artists that mainly have fans that are heavy consumers.

This cross-subsidization effect could be viewed as both positive and negative. In epadunk, new artists and music creators are spot on in a contemporary youth culture, and since they also often own 100% of the rights to the master and the song, they are finding themselves with revenues to support their continuing career. They are clearly contemporary “streaming artists” in Sweden, together with artists active in the hip hop and dance/electronic genres.

But, just looking at the streamcounts does not paint the whole picture. Although it is quite straightforward to estimate the total economic value that a certain amount of streams have generated on Spotify, there are other factors that influence how much artists and music creators actually receive in the end.

5. Simulating streaming revenues

The music industry is a royalty industry. Percentage is in the bloodstream of the music economy, regardless if one studies the economy of DSPs, PROs, labels, publishers, distributors, managements, producers, composers, artists, or any other actor involved in the creation and making available of music.

As a part of this study, a simulation of potential revenues to artists has been conducted. In essence, the earlier mentioned average per stream rates have been used to calculate the potential total economic value of aggregated streamcount for each Swedish artist qualifying for top 2,000, as well as the potential payout generated to the artists based mainly on three royalty scenarios, 20%, 50% and 100%. The purpose of these three scenarios is to show how large an effect royalty rates have on the payout to artists, not to present the factual payouts.

Simulating each artist’s specific conditions is very complex, each setup is unique, therefore one has to know the exact facts, such as who are registered as composers and how the splits of revenues are between them, the publishing deals that each songwriter has and how they are constructed, if there are any producers or session musicians involved, the details of the label deal, such as advances, deductions, recoupments and exact royalty levels, as well as information on the agreement that the label have with DSPs or distributors, among other things.

Hence, it is important to stress that these simulations are merely useful for understanding the potential payouts to artists from what Spotify has paid to rights holders. It is plausible that some artists would perceive that they have received less than in these simulations, as well as some artists perceiving that they have received more.

Let us introduce the simple equation

$$\text{Payout} = \text{SC} * (\text{MV} * \text{MR}) + (\text{SC} * \text{SV})$$

where SC is the total streamcount for the artist, MV is the per stream rate for the master (Master Value), MR is the artist's royalty rate from the master (Master Royalty), and SV is the per stream rate for the song (Song Value).

As described earlier, MV, MR, and SV can vary. In this simulation we are using the earlier presented average rates:

- The master per stream rate: 0.3¢–0.5¢,
- The song per stream rate: 0.08¢–0.13¢,
- The royalty rate (or points) on the master: 20%, 50%, or 100%.

The royalty rate on the master is a cruel simplification of royalty agreements in contracts between artists and record labels. Still though, these royalty levels bear some resemblance to how contracts are constructed nowadays when signed to a label, having a sub licensing deal with a label, or being DIY.

In the case of being signed to a large label, royalty rates have historically been lower than 20%, standard royalty rates were closer to 10% before the streaming era, and there are even examples of legacy artists that have signed deals with 2% or 3% royalty.²⁴ In the latest years though, royalty rates have increased as a result of the shift to the streaming economy. Also, conversations with industry experts and label executives have shown that 15–25% can be regarded as somewhat standard in contemporary large label contracts.

The simulations do not include other details in contracts that might influence the overall payout of Spotify revenues as they are distributed through a label to artists, such as advances that are to be recouped before the royalty kicks in, deductions for different kinds of costs that have to be fulfilled before the recoupment of advances can begin, as well as other contractual necessities that are an inherent part of the economic relationship between a label and the artist.

In the case of being signed to a smaller independent label, royalty rates in general tend to be higher. That being said, there are of course examples of indie labels also signing deals with royalty rates on the 10–20% level, but conversations with industry representatives reveal that it is more common nowadays that rates are in the 25–40% domain. Also, hefty advances are not as usual in the independent community as among the largest labels, although this differs a lot depending on the size of both the label and the artist.

²⁴ Contracts between artists and labels are examined at <https://committees.parliament.uk/publications/6739/documents/72525/default/>

In the case of being DIY, the Spotify payment always goes through another intermediary, a distributor of some sort. Even though DIY artists have to pay for their releases in some way, the current competitive digital distribution landscape has led to price reductions, meaning that the cost for DIY distribution has mostly a marginal effect on the overall payout for most professional DIY artists.

Some of these distributors have a subscription model²⁵, where the artist pays an annual flat fee for unlimited uploads, usually \$15-\$40, depending on what kind of extra services the artist is in need of, and the artist keeps 100% of the Spotify payout. Other distributors use an à la carte model where the artist pays a fixed amount for a single, EP or a full album²⁶, usually priced \$10-\$20 per release, and the artist also keep 100% of the Spotify payout with this model, while other distributors have provision based models where a share of the revenues is kept by the distributor, usually 10-15%²⁷. The provision based distributors are mainly used by independent labels and are not as often used by DIY artists.

Starting with the overall value estimation of the top 25 Swedish artists streamcount, using the earlier described 0.38¢–0.63¢ per stream rate, calculating the proposed total payment that Spotify has paid for each artist's music in US dollars since 2008 to all related rights holders of the music, gives the below results, a potential accumulated *low_value*, and a potential accumulated *high_value*.

This is *not* what the artists themselves have received during these years, it is the total valuation of streamcounts for all rights holders connected to the music; publishers, songwriters, labels, artists, musicians, producers etc, it is basically an estimation of the amount Spotify has paid to the rights holders for each artist's catalogue in total 2008–2022.

pos	artist_name	streamcount	low_value	high_value
1	Avicii	13,192,619,970	\$50,131,956	\$83,113,506
2	Zara Larsson	7,642,200,838	\$29,040,363	\$48,145,865
3	Tove Lo	5,790,894,322	\$22,005,398	\$36,482,634
4	ABBA	5,268,763,979	\$20,021,303	\$33,193,213
5	Alesso	4,956,483,590	\$18,834,638	\$31,225,847
6	Galantis	4,692,496,692	\$17,831,487	\$29,562,729
7	Swedish House Mafia	2,590,444,269	\$9,843,688	\$16,319,799
8	Sabaton	2,522,254,182	\$9,584,566	\$15,890,201
9	Axwell ∩ Ingrosso	2,374,870,773	\$9,024,509	\$14,961,686
10	Sandro Cavazza	1,966,307,020	\$7,471,967	\$12,387,734
11	A7S	1,951,736,976	\$7,416,601	\$12,295,943
12	Roxette	1,894,072,785	\$7,197,477	\$11,932,659
13	Mike Perry	1,880,260,874	\$7,144,991	\$11,845,644
14	Lykke Li	1,755,617,320	\$6,671,346	\$11,060,389

²⁵ For example www.distrokid.com, www.tunecore.com, www.amuse.io, www.landr.com.

²⁶ For example www.cdbaby.com, www.emubands.com, www.routenote.com

²⁷ For example www.theorchard.com, www.kontornewmedia.com, www.believe.com, www.igroove.com.

15	Icona Pop	1,731,838,759	\$6,580,987	\$10,910,584
16	NOTD	1,602,633,794	\$6,090,008	\$10,096,593
17	Ghost	1,569,420,560	\$5,963,798	\$9,887,350
18	shy martin	1,417,049,949	\$5,384,790	\$8,927,415
19	José González	1,333,447,636	\$5,067,101	\$8,400,720
20	Veronica Maggio	1,326,764,523	\$5,041,705	\$8,358,616
21	John Martin	1,326,587,761	\$5,041,033	\$8,357,503
22	In Flames	1,217,084,886	\$4,624,923	\$7,667,635
23	Robyn	1,195,074,115	\$4,541,282	\$7,528,967
24	Vigiland	1,187,354,063	\$4,511,945	\$7,480,331
25	First Aid Kit	1,118,282,108	\$4,249,472	\$7,045,177

The same simulation has been applied to all artists in the dataset, giving an estimation of the total value of all the streams that have been generated for each of them.

Roughly, 1,500 Swedish artists are estimated to have generated more than \$100,000 in payouts from Spotify for the whole time period, and 200 artists are estimated to have generated more than \$1,000,000. Again, this is not what the artists themselves have received in the end, it is what Spotify has paid to the different rights holders and intermediaries. Also, it is difficult to say whether this is “good” or “bad” compared to earlier paradigms, since there is no data available to compare with.

The total Spotify payout for all Swedish artists that have generated more than 1 million streams during the time period 2008–2022 is estimated to have been \$1–\$1.5 billion.

In the below table, master revenues were separated from song revenues, and the three simulated royalty rates were applied. In essence, this is an estimation of how much top 25 Swedish artists would have received from the master recordings under the three different royalty scenarios.

Not included are potential advances and fixed costs like recording expenses, marketing, overhead costs and other details that are also a part of artist contracts. As mentioned, for most artists there is a period where they do not receive any royalty at all until advances and/or other costs have been recouped. In some cases, reaching the breakeven level can take months or even years.

Since it is impossible to know how these parts of the contracts are formulated for each and every one of the artists in the dataset, the below results should be treated with caution and only viewed as an estimation of the potential Spotify streaming value towards the artist from the label, depending on different royalty rates.

pos	artist_name	20%_royalty_master	50%_royalty_master	100%_royalty_master
1	Avicii	\$7,915,572–\$13,192,620	\$19,788,930–\$32,981,550	\$39,577,860–\$65,963,100
2	Zara Larsson	\$4,585,321–\$7,642,201	\$11,463,301–\$19,105,502	\$22,926,603–\$38,211,004
3	Tove Lo	\$3,474,537–\$5,790,894	\$8,686,341–\$14,477,236	\$17,372,683–\$28,954,472

4	ABBA	\$3,161,258–\$5,268,764	\$7,903,146–\$13,171,910	\$15,806,292–\$26,343,820
5	Alesso	\$2,973,890–\$4,956,484	\$7,434,725–\$12,391,209	\$14,869,451–\$24,782,418
6	Galantis	\$2,815,498–\$4,692,497	\$7,038,745–\$11,731,242	\$14,077,490–\$23,462,483
7	SHM	\$1,554,267–\$2,590,444	\$3,885,666–\$6,476,111	\$7,771,333–\$12,952,221
8	Sabaton	\$1,513,353–\$2,522,254	\$3,783,381–\$6,305,635	\$7,566,763–\$12,611,271
9	Axwell & Ingrosso	\$1,424,922–\$2,374,871	\$3,562,306–\$5,937,177	\$7,124,612–\$11,874,354
10	Sandro Cavazza	\$1,179,784–\$1,966,307	\$2,949,461–\$4,915,768	\$5,898,921–\$9,831,535
11	A7S	\$1,171,042–\$1,951,737	\$2,927,605–\$4,879,342	\$5,855,211–\$9,758,685
12	Roxette	\$1,136,444–\$1,894,073	\$2,841,109–\$4,735,182	\$5,682,218–\$9,470,364
13	Mike Perry	\$1,128,157–\$1,880,261	\$2,820,391–\$4,700,652	\$5,640,783–\$9,401,304
14	Lykke Li	\$1,053,370–\$1,755,617	\$2,633,426–\$4,389,043	\$5,266,852–\$8,778,087
15	Icona Pop	\$1,039,103–\$1,731,839	\$2,597,758–\$4,329,597	\$5,195,516–\$8,659,194
16	NOTD	\$961,580–\$1,602,634	\$2,403,951–\$4,006,584	\$4,807,901–\$8,013,169
17	Ghost	\$941,652–\$1,569,421	\$2,354,131–\$3,923,551	\$4,708,262–\$7,847,103
18	shy martin	\$850,230–\$1,417,050	\$2,125,575–\$3,542,625	\$4,251,150–\$7,085,250
19	José González	\$800,069–\$1,333,448	\$2,000,171–\$3,333,619	\$4,000,343–\$6,667,238
20	Veronica Maggio	\$796,059–\$1,326,765	\$1,990,147–\$3,316,911	\$3,980,294–\$6,633,823
21	John Martin	\$795,953–\$1,326,588	\$1,989,882–\$3,316,469	\$3,979,763–\$6,632,939
22	In Flames	\$730,251–\$1,217,085	\$1,825,627–\$3,042,712	\$3,651,255–\$6,085,424
23	Robyn	\$717,044–\$1,195,074	\$1,792,611–\$2,987,685	\$3,585,222–\$5,975,371
24	Vigiland	\$712,412–\$1,187,354	\$1,781,031–\$2,968,385	\$3,562,062–\$5,936,770
25	First Aid Kit	\$670,969–\$1,118,282	\$1,677,423–\$2,795,705	\$3,354,846–\$5,591,411

With the same calculations being applied to all artists in the dataset, we can now dig deeper into specific use cases in different genres, combining the potential revenues from the recordings with the potential revenues from the songwriting to estimate how much each artist could have received from the accumulated Spotify streamcount through the intermediaries. For the purpose of these simulations we hypothesise that any advance has been recouped, no deductions are made, and no “producer points” have been deducted from the royalty. The names of the artists in each of the following use cases have been anonymized.

Simulation use case 1: The pop band signed to a large label

This is a band that has been active on the Swedish music scene for >30 years. There are four members. They have been signed to a large label for the majority of their releases. They have a streamcount of approximately 300 million streams on Spotify since 2008.

Using the same formula as before, the simulated value of the whole catalogue from Spotify to the label on the master side can be estimated to amount to approx. \$900,000–\$1,500,000. Applying the 20% royalty rate would mean \$180,000–\$300,000 in royalty to the band, while the rest is endorsed to the label: \$720,000–\$1,200,000. In a 10% royalty scenario, the royalty payment to the band would instead be \$90,000–\$150,000.

Presuming that it still is 20%, and that each member has a quarter of the royalties, each member would have received \$45,000–\$75,000 in Spotify royalties from the label. Considering that the full time period is 14 years, or 168 months, the average per month royalty payment that each member in this band might have received from the label would be approx. \$270–\$450, provided they have recouped potential advances and with no deductions taken into consideration.

On top of the label royalties, there is also the songwriting revenues coming from mainly the Swedish PRO Stim. In a fully detailed simulation, each and every track would have to be analyzed as to who have been the composers, how the potential splits between them are made etc, but for the sake of simplicity, the same methodology as on the master side has been used, each member receives a quarter, presuming that all members of the band are active in the songwriting.

The total value that has been paid by Spotify to Stim for this catalogue ought to be approx. \$240,000–\$390,000 for the whole time period. Approx. 10% of these revenues stays with Stim as management deduction, or administration costs, which leaves us with \$216,000–\$351,000.²⁸

As mentioned earlier in the paper, revenues on this side are divided between public performance and mechanical rights. In Sweden, roughly 80% of public performance and mechanical rights end up with the songwriters, while the publisher keeps the remaining part, if the composers have a publishing deal, otherwise 100% goes directly to the authors. Internationally, there are different constructions for the division of revenues, for example in the UK and USA there is usually a 50/50 split of public performance, while 100% of mechanical goes to the publisher. In the end though, the 80/20 level is applicable to most countries.

This means that each band member would have received \$44,000–\$71,000 on the songwriting side in total, or approx. \$260–\$420 per month since 2008.

Summing up the master royalties and songwriting royalties, each member would in this simulated scenario have received a monthly average income of \$530–\$870 from the 300 million streams on Spotify, disregarding taxes and social security contributions.

Hence, if this simulation would reflect reality, it is likely that the members of this very famous Swedish pop band have not been able to live off the payments they receive from the PRO, the publisher, and the label from the Spotify payouts. Of course, it is possible that one of the band members has a much higher share of songwriting revenues, leading to higher revenues for him/her, but that would on the other hand affect the revenues for the other band members.

Also, important to highlight is that Spotify is just one revenue stream to the band, it is plausible that live revenues and radio revenues are the main contributors to the livelihood of these musicians, but in essence, this use case shows that it is plausible that the members of

²⁸ https://www.stim.se/sites/default/files/stim_ar21_Insynsrapport_2205042.pdf

this famous Swedish pop band, with a considerable streamcount on Spotify, can probably not live solely on what they in the end get paid for those streams by the intermediaries.

Simulation use case 2: The DIY artist in the hip hop genre

This solo artist owns all of the rights connected to the recordings as well as all of the rights on the publishing/songwriting side. The artist's music has generated 580 million streams on Spotify, and the artist has been active on the platform since 2015.

Using the same simulation methodology as in use case 1, the artist would have received approx. \$1,700,000–2,900,000 for the recordings, and \$415,000–\$750,000 as a songwriter, in total \$2,315,000–\$3,650,000.

Distributing the simulated proceeds on a monthly basis, since 2015, the artist would have received \$27,600–\$43,500 in average monthly income from the streams generated on Spotify, before taxes and social security contributions.

The use case is obviously simplified, the artist has collaborated with many other artists, has had different producers, musicians and composers involved in much of the music that has been released, and they are of course also getting paid through either royalties or in other ways. Nevertheless, it is still highly plausible that this artist has benefitted from the Spotify streaming model to a much larger extent than the pop band analyzed in use case 1.

Simulation use case 3: The pop artist signed to an indie label

This use case is a solo pop artist that has been active for >25 years, mainly performing music in the Swedish language. The accumulated streamcount for 2008–2022 on Spotify is approx. 180 million. The artist has been signed to an independent label for the whole time.

Using the same methodology, the value of the catalogue on the recording side ought to be approx. \$540,000–\$900,000. If the artist would have had a 50% royalty, which is usually the case with sub licensing deals, the total value to the artist from the label would be \$270,000–\$450,000. If instead, the royalty level has been 20%, the total payout to the artist from the label would be \$108,000–\$180,000, disregarding deductions and other contractual agreements.

The artist as a composer is signed to a publisher, so the artists revenue share as a composer would in this simulation amount to \$104,000–\$170,000, presuming that the artist is the sole songwriter, which of course might not be the case for all songs. Nevertheless, for the purpose of simulating the potential value of payouts, we assume that the artist is the sole songwriter.

In total, using the 50% royalty rate on the master/recording side, the artist would have received \$374,000–\$620,000 in this simulation, which means approx. \$2,200–\$3,700 as an average monthly income, before taxes and social security contributions.

As mentioned, the above calculation assumes that the artist is receiving 50% in royalty from the label, having a sub licensing deal. A 20% royalty level deal, where the label owns the masters, would instead amount to an average monthly income of \$1,300–\$2,100, before taxes and social security contributions.

A 10% royalty deal with the label would mean a monthly total payout of \$940–\$1,550 of which \$620–\$1,000 would be related to revenues from the songwriting side.

Again, this is a simplified simulation over the potential payouts to the artist in the end and should not be considered a “fact”, but rather an estimation with the purpose of showing the importance of royalty levels for the end payouts to artists.

Simulation use case 4: The DIY pop artist

This use case is a solo pop artist that has been active on Spotify since 2017, that owns all of the rights to the recordings and songs, and does not have a publishing agreement. The accumulated streamcount is 40 million.

The total economic value on the recording side would in the simulation be \$120,000–\$200,000, and the value on the songwriting/publishing side \$32,000–\$46,000. In total the artist would have received approx. \$152,000–\$246,000 since 2017.

The average monthly income would approx. be \$2,500–\$4,100, before taxes and social security contributions.

Simulation use case 5: The metal band

This metal band is one of the most well known bands from Sweden, having released music for >30 years. The band consists of six members, and they have been signed to a sub label of a large label. The accumulated streamcount is 150 million.

The total payout from Spotify on the recording/master side is estimated to have been \$460,000–\$770,000. Presuming that the sublabel is using a royalty level of 20%, the value on the recording side for the band would be approx. \$90,000–\$150,000, and on the songwriting side \$75,000–\$120,000.

Combined, the total value of the 150 million Spotify streams from the label for this band, as well as songwriting revenues, could be estimated at \$165,000–\$270,000 in this simulation. Divided between six band members and the total time period of 14 years, it would give a

monthly income for each band member of \$160–\$270, before taxes and social security contributions.

It goes without saying that this band is probably making their living mainly from the tens of thousands of fans buying tickets to their concerts.

Simulation use case 6: The ambient/newage artist

This artist is a solo artist mainly releasing music in the ambient/newage genre. The artist is signed to an independent label with a 50/50 split on recording revenues from Spotify. The streamcount on Spotify is approx. 500 million streams, and the artist has been active since 2015.

The total value on the recording side would be \$1,450,000–\$2,420,000, presuming that the label has a regular 50-55% share deal with Spotify. This particular use case does not include songwriting revenues through Stim.

The artist cut would surmise to \$725,000–\$1,210,000 for the whole period in the simulation, and the average monthly payout to the artist would be \$8,600–\$14,400 before taxes and social security contributions.

Simulation use case 7: The Eurovision star

This artist is a very well known Swedish artist that has participated in the “Melodifestivalen” (the Swedish contest preceding the Eurovision Song Contest) multiple times. The artist has been signed to a sub label of a larger label, and has been active on Spotify since 2014. The total streamcount for the artist's catalogue is 95 million.

The total value of the payout from the label on the master side ought to be \$56,000–\$94,000, presuming the 20% royalty rate, and on the songwriting side from Stim and the publisher \$45,000–\$73,000, giving an estimation of \$101,000–\$167,000 in total payout, or \$935–\$1,545 monthly payment before taxes and social security contributions.

Again, this simulation does not take into consideration other contractual agreements that might influence the payouts to the artist in the end. It might be possible that the artist receives a higher, or lower, payout, depending on the specific circumstances for the specific artist.

Simulation use case 8: The legacy artist

This artist has been active for approx. 30 years on the Swedish music scene, has participated several times in Eurovision and released many albums, has had TV-shows, received multiple prizes and awards, and is considered to be one of the most beloved Swedish solo artists.

The artist was signed to a large international independent label for the first part of the career. The independent label was sold to a larger label, and since then the artist has released music through this label.

The total streamcount on Spotify is 120 million. The total value paid to the label from Spotify would surmise to \$350,000–\$590,000 in the simulation. The artist's total royalty from the label would be \$70,000–\$120,000, based on the 20% royalty rate. With a 10% royalty rate, the total payout would instead be \$35,000–\$59,000.

On the songwriting side, the absolute majority of the songs performed by the artist have been written by other composers than the artist, hence, the artist has received such a small amount of songwriting remuneration that the revenue stream can be disregarded.

The artist's average monthly payout during 2008–2022 is simulated to have been \$420–\$720 from Spotify revenues, before taxes and social security contributions.

Simulation use case 9: The epadunk artist

This artist has been active on Spotify since 2021, and consists of two band members. The artist has a sub licensing deal with an independent label and owns all of the songwriting rights. The streamcount on Spotify is 120 million.

On the recording side, the artist is presumed to have received \$180,000–\$300,000 from the label for the Spotify streams, based on a 50% royalty rate, and on the songwriting side \$85,000–\$140,000 from Stim.

In total the artist would have received an estimated \$265,000–\$440,000, which translates to an average monthly payout for each band member during the two years that the artist has been active on Spotify of \$5,500–\$9,000, before taxes and social security contributions.

Simulation use case 10: The classical artist

This is a classical artist, mainly performing on a specific instrument. The artist can be considered to be one of the most respected and famous classical instrumentalists in Sweden. The artist has been signed to a large label for the most part of the career. The Spotify streamcount is 60 million.

Since the absolute majority of the songs that the artist performs have not been written by the artist him/herself, revenues on the songwriting/publishing side can be disregarded.

The simulated estimation is that the artist would have received \$35,000–\$58,000 in total royalties from the label, based on a 20% royalty rate, which translates to \$210–\$345 in average monthly payout for the period 2008–2022, before taxes and social security contributions.

Simulation use case 11: The noise artist

This “artist” has been publishing noise in different colors on Spotify since 2017. The artist is anonymous, although the label behind the artist is a Swedish independent label. One could question whether the packaging and uploading of brown, white or pink noise as albums is really a form of artistry at all, but, the artist is for all practical means considered as a “verified artist” on Spotify.

The total streamcount on Spotify for this “artist” is 2.1 billion. In total, more than 500 different sounds are connected to the artist. Noise and equivalent sounds are not copyright protected since there is no originality, which is fundamental for a song or something else to be embraced by copyright. Therefore, no revenues have been paid from Spotify to any PRO, like Stim, for these sounds, the only revenues for these tracks are on the master side.

Given the simulation prerequisites being used, the total economic value for these 2.1 billion streams on the master side is estimated to be \$6,300,000–\$10,500,000.

It is possible that this particular label has an exclusive agreement with Spotify, giving the label a lower revenue share than what is used in the overall simulation, but since such deals are confidential and not publicly available, one has to assume that the same economic prerequisites apply to this label as to all other labels. The question of whether certain labels might have agreements with Spotify that gives them a lower payout in exchange for getting placed on specific playlists have been discussed in Sweden for some time.²⁹ It is out of the scope of this paper to guess whether such deals exist or not.

Since this “artist” is most probably not an artist at all, but rather just an alias for the label itself, the average monthly payment since 2017 ought to be approx. \$105,000–175,000, given that the same rate applies to this label as other labels.

These are just 11 use cases, but the same methodology has been applied to all artists in the dataset, making the simulation a useful method for identifying plausible payouts from Spotify as well as revenues to those Swedish artists that have been professional or professionally aspiring during 2008–2022.

²⁹ <https://www.dn.se/kultur/dn-avslojar-svenska-fejkartisterna-som-tog-over-pa-spotify-storre-an-robyn/> and <https://www.svd.se/a/66gGkz/christer-sandelin-blev-miljonar-pa-spotify-med-pahittade-artister>

Naturally, it is not possible to include all artists in this paper as individual use cases, but the publicly available limited dataset can be used by anyone to calculate the potential values and payouts for any of the artists catalogues, given the specific artists contractual setup.³⁰

All together it makes it possible to sum up which parties in the Swedish music industry have benefitted from the payments that have been distributed by Spotify to rights holders and intermediaries during 2008–2022:

- Labels with a contractual setup that gives the label a high share of the revenues distributed from Spotify. Even though many of the artists that labels work with do not break through, or generate considerable streamcount, the artists that do become a success can be a substantial cash cow for labels over time. When breakeven has been reached, a catalogue that continues to generate a large streamcount will become a very valuable asset, given that most artist contracts do not have variable royalty rates built in to them and thus the artist will in essence continue to receive the same royalty rate regardless of how successful the music becomes. Also, recoupments of advances and deductions of costs related to marketing, distribution, overheads etc, is sometimes done on the artists royalty share only, meaning that the label can start making profit on releases before break even is reached.

In 2022, this led to a new agreement between artist and label associations in France, with a minimum royalty rate for non-featured artists, when a song reaches 7.5 million streams they are entitled to receive an additional payment from the label.³¹ When the song has reached 15 million streams, a further payment is due, and so on. Some of the larger labels have started to implement these performance based royalty steps into new contracts, although for the back catalogue a fixed royalty rate is standard. Also, this agreement only applies to future recordings in the French music industry, and the results are yet to be evaluated.

It should be mentioned that many labels use some of the profit from successful artists to invest in new artists and music. Some artists will not become cash cows, and the only way for a label to continue being in business is to invest in new talent. Also, the benefits of being signed to a large label is unquestioned for an artist. A large label has a structured organisation that takes care of marketing, distribution, media promotion, social media accounts, statistical analysis, playlist pitching, metadata, synchronisation and many other crucial parts of an artist's career. Nevertheless, Swedish labels that have the possibility to keep the largest share of Spotify payouts from the music that generates large streamcounts have clearly been “winners” in the streaming paradigm.

- DIY artists that own the majority of their rights and have succeeded mainly in the hip hop, pop, epadunk and dance/electronic genres, with fans that are heavy streamers, are also “winners”. Many of these artists have been able to tap into the riches of Spotify, often generating large streamcounts during a short period of time, hence receiving large sums through their intermediaries. Some of these artists decide to

³⁰ <https://docs.google.com/spreadsheets/d/1RNa0zdZOwwwvhMMLmjclwMAXnF65049IDSchHpgaEdiE>

³¹ <https://ipkitten.blogspot.com/2022/05/change-is-afoot-in-music-industry-as.html>

sign with some kind of record label after a while. When an artist passes a certain level of success, it becomes difficult to run all of the business, marketing, distribution, promotion etc that is necessary when an artist's career takes off.

- Companies and artists that are releasing “mood music” and other forms of functional audio that get placed on playlists that generate massive streamcounts. These companies and artists have understood that some music is played over and over again, since it is context focused and people come back to the same contexts all the time, whether it be daily meditation, work, studying, relaxing, sleeping, training, running, or anything else.

At the moment there is a tendency in some parts of the music industry to disregard this music as being of a lower cultural value, not being “real” music. But, if millions of users really want to play this music in their daily activities, who is to tell what is “good” or “bad” music? Mood and functional music is clearly of value for many, hence, this music also has an important role to fulfill on Spotify. But, one could question whether other forms of audio, that cannot be deemed as music at all, such as nature sounds, animal sounds, noise in different colors, and other sounds, really should be included in the *music* economy?

- The solo superstars in Swedish pop, generating such massive amounts of streams that even a low royalty rate translates to a substantial income. Important to remember is that solo artists have a clear advantage compared to artists that consist of several band members. There are many examples of Swedish bands that have generated hundreds of millions of streams during the time period, but when dividing the plausible payouts from intermediaries by the number of musicians and the 168 months of payouts, the monthly income for each band member often becomes sparse.
- Music publishers that collaborate with the most successful Swedish composers. In general, publishers are the parties in the music industry that in comparison are receiving the lowest level of remuneration from DSPs, since 80% of the revenues from PROs like Stim goes to the composers. Nevertheless, for those publishers that are working with the new generation of Swedish composers that are having huge successes internationally, Spotify payouts through the PRO is a substantial revenue stream.

On the opposite side, which artists and actors have not benefitted from Spotify payouts during the same time period?

- Artists with label deals giving the artist a low share of the revenues distributed from Spotify and intermediaries. This includes many so-called legacy artists. On the other hand, these artists were probably not better off in the physical media era since the catalogue tended to disappear from the market after a while. In the streaming era, the music is at least always available to consumers, making it possible to more easily activate the back catalogue. Nevertheless, the simulation shows that beside the factual size of the streamcount, low royalty levels is the main reason as to why many artists perceive their payouts as being negligible.

- Artists that are active in genres where users mainly are not heavy consumers, and/or are releasing music that is above average in song length. Both of these factors, (i.e. if the fans are heavy streamers or not, and the length of the music being released), are important in order to be able to compete on a streaming platform. This also means that there is a monetary cross-subsidization effect from fans that are mainly listening to such genres, towards genres that consist of shorter songs appealing to heavy streamers.
- Local artists performing in the Swedish language, that are not in the hip hop or epadunk genre, or are the superstars of pop. For many of them it is simply not possible to generate the necessary streamcount, given the fact that the amount of monthly listeners is limited. Many of these artists instead have to rely upon other revenue streams, such as live performances and airplay.

Altogether, the simulations give evidence as to which artists have benefitted, and which artists have not benefitted, from the streams generated on Spotify during 2008–2022. The hope is that the results will contribute to the transparency and understanding of how the streaming economy works, as well as to give artists a tool to investigate their own economic situation.

6. Conclusion and discussion

This study has shown that many Swedish artists have benefitted from the Spotify payouts generated during the time period 2008–2022. In fact, revenues from Spotify have become the most important revenue stream for many rights holders. At the same time, many artists have not been able to harness the power of streaming, for reasons earlier described.

Spotify is paying out the same level of revenue share to rights holders in the music industry as all the other DSPs do. The reasons why certain artists have not been able to convert their artistry economically into the streaming domain can probably be found in how the streaming economy is constructed, with the 30 second threshold, the royalty pool pro rata model that leads to cross-subsidization effects, globalisation effects influencing niche genres on local markets, as well as royalty levels in artist contracts. There is clear quantitative evidence that Swedish artists active in several niche genres underperform compared to their general position as artists.

Spotify itself also has an important gatekeeping function, on all markets. If the editors decide to support a certain breed of artists, for example new and upcoming artists, or new local genres like epadunk or local hip hop, this also has a strong influence on the overall streaming economy. This extends to context based playlists with “functional” music and non-music audio.

As mentioned earlier, there are large amounts of audio available on Spotify that are not music but are sounds from nature, noise in different colors, animal/human sounds and other forms of audio (podcasts and audiobooks not included). These recordings clearly have an effect on the overall music streaming economy, since they are also included in the distribution of revenues for music recordings based on the streamshare methodology.

One example is the earlier "noise artist" mentioned among the use cases, with a streamcount well over 2 billion since 2017. This "artist", with tracks that just contain noise, has generated more payout from Spotify than f.e. the whole catalogues of the following randomly chosen artists, combined:

Amy Diamond, Anne Sofie von Otter, At The Gates, Backyard Babies, bob hund, Broder Daniel, Cajsa Stina Åkerström, Charlotte Perrelli, Christer Sjögren, Cornelia Jakobs, E.M.D., Entombed, Flamingokvintetten, Gothenburg Symphony Orchestra, Georg Riedel, Hooja, Jakob Hellman, Joel Alme, Lasse Berghagen, Lisa Miskovsky, Looptroop Rockers, Magnus Carlson, Moneybrother, Olle Ljungström, Oscar Zia, Patrik Isaksson, Pernilla Andersson, Pugh Rogefeldt, Swedish Radio Choir, The Haunted, The Wannadies, Tusse.

We could have arbitrarily chosen other artists to make the comparison, but this selection shows that the cultural value that the above artists are providing to society is large, but, from an economic standpoint, all of the music related to these artists has generated fewer streams than the noise that a fictitious "artist" has generated during the last five years.

One can raise the question whether a system where brown, pink, or white noise generates more in payout than all the catalogues of the above respected artists, is really a fair system? Should the music industry, as well as Spotify as DSP, consider a more "music-centric model", where revenues are divided only to the rights holders of real music rather than to different sounds?

Although the main purpose of this study has not been to solve potential problems, but rather to provide a quantitative basis for further investigations, something has to be said about the current status in the international music industry where discussions are going on to develop better remuneration models for artists. During the beginning of 2023 these issues have been highlighted by different stakeholders.

The New Years memo by Universal Music Group CEO Lucian Grainge seems to have kicked things off in the music industry, a letter in which he stated that 2023 would be the year that the label would actively start trying to change the streaming economy for the better.³²

Among other things, he addressed the earlier mentioned problem of non-music tracks: "With such a vast and unnavigable number of tracks flooding the platforms, consumers are increasingly being guided by algorithms to lower-quality functional content that in some cases can barely pass for 'music.' For example, just witness the thousands and thousands of 31-second track uploads of sound files whose sole purpose is to game the system and divert royalties."

At the end of January 2023, Universal Music Group revealed a collaboration with streaming platform Tidal, in which they "explore an innovative new economic model for music streaming that might better reward the value provided by artists and more closely reflect the

³² <https://www.billboard.com/pro/lucian-grainge-umg-full-staff-memo-2023-read-message/>

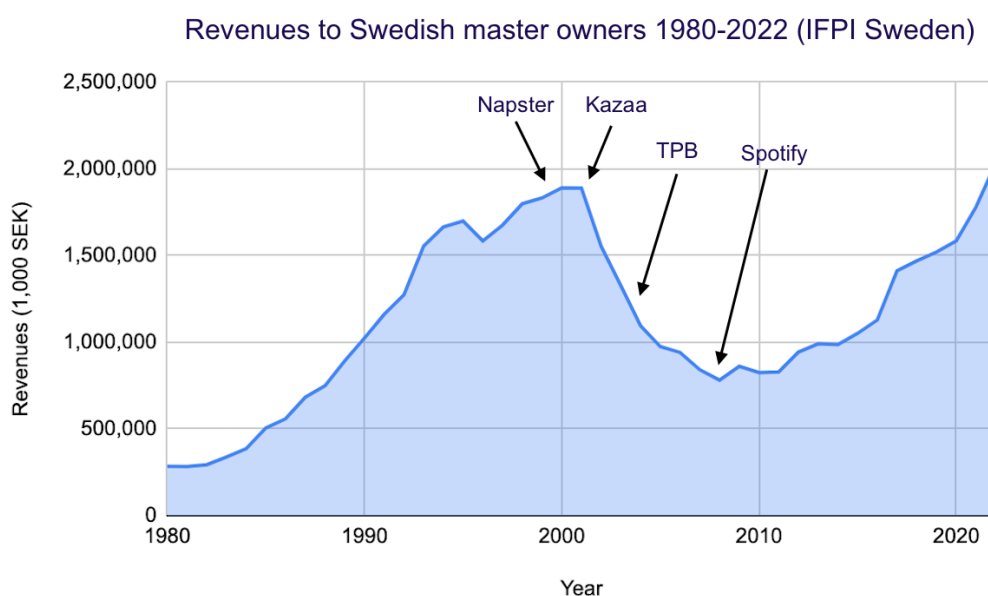
engagement of TIDAL subscribers with those artists and music they love.”³³ And in March 2023 the same kind of collaboration was extended to Deezer.³⁴

Warner Music Group started their collaboration with SoundCloud for a more user-centric streaming paradigm already in July 2022, stating: “As the ecosystem expands, WMG is focused on advancing and experimenting with new economic models to ensure the opportunities for our artists and their communities are maximized.”³⁵

To this should be added the so-called Equitable Remuneration right being discussed mainly in European countries, a new add-on right for artists that would give payment directly to artists from DSPs, through artist CMOs. The ER right is active in Spain, based on earlier legislation for broadcast, in Germany it has been implemented for UGC platforms and it has also been implemented in Belgium³⁶, Croatia and Hungary.³⁷ In Sweden, a first governmental investigation came to the conclusion that the ER right was not needed, although the conclusions from the investigation have been questioned by artist organisations.³⁸

Whether the ER right is favourable or not is out of the scope of this paper, but the discussions related to these issues show that “something” is happening regarding how the music streaming economy is constructed.

Spotify could be argued to have saved the Swedish music industry from piracy. During the years preceding the launch of Spotify in 2008, the Swedish music industry lost 60% of its revenues from recorded music, mainly because of online piracy, with Napster released in 1999, Kazaa in 2001, and the Pirate Bay in 2004.



³³ <https://www.universalmusic.com/tidal-and-universal-music-group-partner-to-develop-more-artist-and-fan-friendly-streaming-model/>

³⁴ <https://www.universalmusic.com/universal-music-group-and-deezer-announce-initiative-to-explore-new-artist-and-fan-focused-streaming-approach/>

³⁵ <https://press.soundcloud.com/216750-soundcloud-and-warner-music-group-announce-global-licensing-deal-bringing-fan-powered-royalties-to-major-label-artists>

³⁶ <https://completemusicupdate.com/article/belgium-introduces-er-right-on-streams/>

³⁷ An overview of how the DSM directive and the ER right has been implemented in EU countries is available at <https://www.aepo-artis.org/>.

³⁸ <https://www.regeringen.se/rattsliga-dokument/statens-offentliga-utredningar/2022/05/sou-202223/>

When Spotify was released more than 14 years ago, the monetary distribution model used was the most efficient available at the time, built upon how the à la carte download economy was constructed. The 30 second threshold for generating an economic tick on a DSP is for example a consequence of the 30 second free listening threshold used in the download paradigm, it was just carried over into the streaming era. But, is this discrete threshold really valid now, 14 years later? What is the empirically based evidence that 30 seconds is better than 29 seconds or 31 seconds? Or is it just an arbitrarily chosen threshold based upon an historical artefact that needs to be revised towards a more balanced solution that compensates for different forms of music in a better way?

As this research has shown, the current model for remuneration from streaming has resulted in many Swedish artists generating massive streamcounts and payouts from Spotify. Many actors in the music industry have benefitted economically, while other actors have not been able to create any considerable amount of revenues. The pro rata model seems to lead to cross-subsidisation effects which in turn can lead to negative consequences for specific artists and genres. But, the whole system is quite complex, which is why more knowledge is needed, to better understand all sides of the story.

Spotify has become the largest economic contributor to the Swedish music industry since 2008, and we now have an idea as to which Swedish music industry actors have benefitted. We also know the effects that the streaming model has on certain genres, both positive and negative, as well as how the royalty levels between artists and collaborators influence the final payouts. The current economic model for the division of revenues clearly has limitations.

Considering that streaming is here to stay, is it perhaps now time to start tweaking the streaming model towards a system that better reflects the immense cultural value that artists provide to fans and society at large?

Thus, the creation of a system that is both “artist-centric” and “music-centric”, that does not concentrate revenue shares to certain actors only based on total streamcount under the pro rata paradigm, but also takes into consideration factors like song length, active or non-active listening (in essence, organic listening vs playlist listening), more dynamic possibilities for fans to give economic attribution to artists on DSPs, excluding non-music and fake music from the music economy, among other potential improvements.

Although we can see that there are many Swedish artists that have cracked the code of how to generate large payouts from Spotify, many more artists stand perplexed over how their artistry does not translate into a fairer remuneration, at the same time as the intermediaries between the artists and their audiences report immense profits year after year.

The limitations in the current streaming economy can probably not be solved with quick fixes, but rather with a number of improvements in all parts of the system. DSPs, labels, PROs, publishers, distributors, as well as legislators and politicians, all need to jointly focus on the broader picture; how to better remunerate the ones that in fact are the most important and most valuable asset in the whole ecosystem, the music creators and artists.

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