

**WINDS OF CHANGE.  
JOURNEY OF UK MUSIC FROM THE OLD WORLD TO THE NEW WORLD**

MAURICE C. SAMUEL

ABSTRACT. Digitisation and adoption of increasingly fast broadband Internet represent the two fundamental ‘winds of change’ that have transformed the UK music industry since the 1980s. This paper examines the impact of these changes on sales of music and, by extension, on the royalties of creators of music, in both nominal and real terms. It identifies weaknesses and threats in both, opportunities that might be developed as responses, and possible hypotheses for future economic research that are likely to be of interest to the sector in providing evidence in the debates around appropriate strategies and policies.

1. BACKGROUND, SCOPE AND OBJECTIVES

The 2014 conference of the Society for Economic Research into Copyright Issues was held in Barcelona. There, at the end of the famous La Rambla, is the equally famous pillar of Cristobal Colon, pointing out from the Old World to the New World beyond the horizon. Inspired by his pointing arm, the idea struck me that a question I was asked to address in 2013 – Is UK music in ‘crisis’? – is a call for *direction*.

Following the example of Cristobal Colon, ‘Winds of Change’ is an attempt to provide direction to researchers, strategists, policy-makers and music industry analysts. It attempts to do this by synthesising disparate data that is typically analysed and discussed in a series of silos into a coherent narrative of change – one that has seen music in the UK travel from the Old World through the gateway of the fundamental ‘Winds of Change’ of digitisation and (increasingly) fast broadband Internet, to a New World of weaknesses, threats and opportunities.

---

The views expressed in this paper are solely mine, but I am grateful to participants at the July 2014 SERCI conference in Barcelona and, specifically, to Professor Ruth Towse and to my anonymous referee, for their helpful comments and feedback on earlier drafts. I own any errors or mistakes in the paper.

Given the increasing importance of evidence<sup>1</sup> in any kind of policy or strategy making, the paper is empirical, based on as much historic data as is available. In practical terms, this means that whilst the end dates for the analysis are the most recent years (2011-2013), the start dates are more variable, and constrained by the availability of consistent historical data.

The easiest framework for the analysis is sales of UK music by format over the past 40-plus years. In Section 2, the paper reviews nominal data for these sales, and in Section 3 for creator (songwriter, composers and publishers) royalties<sup>2</sup> that are derived in part from them. Sections 4 and 5 look at the same data in real, inflation-adjusted, terms. Section 6 looks at the weaknesses and threats of the patterns identified in Sections 2-5 on collecting societies.<sup>3</sup> Section 7 focuses on possible opportunities that might be developed as responses. As I see ‘Winds of Change’ representing a start, Section 8 identifies a number of possible hypotheses for future economic research into music that might be relevant to the industry in guiding debates around strategies and policies.

## 2. NOMINAL SALES OF MUSIC: FOUR PHASES

Figure 1 shows nominal sales of recorded music increased from £69m in 1972 to £731m in 2013. The nine different formats that generated these sales can be grouped to identify 4 distinct phases in sales of recorded music, each with its distinct characteristics:

---

<sup>1</sup>For example, the UK Intellectual Property Office states: “Our aspiration is that evidence used to inform public policy, or intended to inform government, meets the following three criteria: that it be clear, verifiable and able to be peer-reviewed.” UK Intellectual Property Office (2013).

<sup>2</sup>As reported by the PRS for Music collecting society in the UK, which represents writers, composers and publishers of music.

<sup>3</sup>This compares to economic research that has tended to focus simply on the functions of collecting societies (e.g. Hansen and Bischoffshausen, 2007; Handke and Towse, 2008).

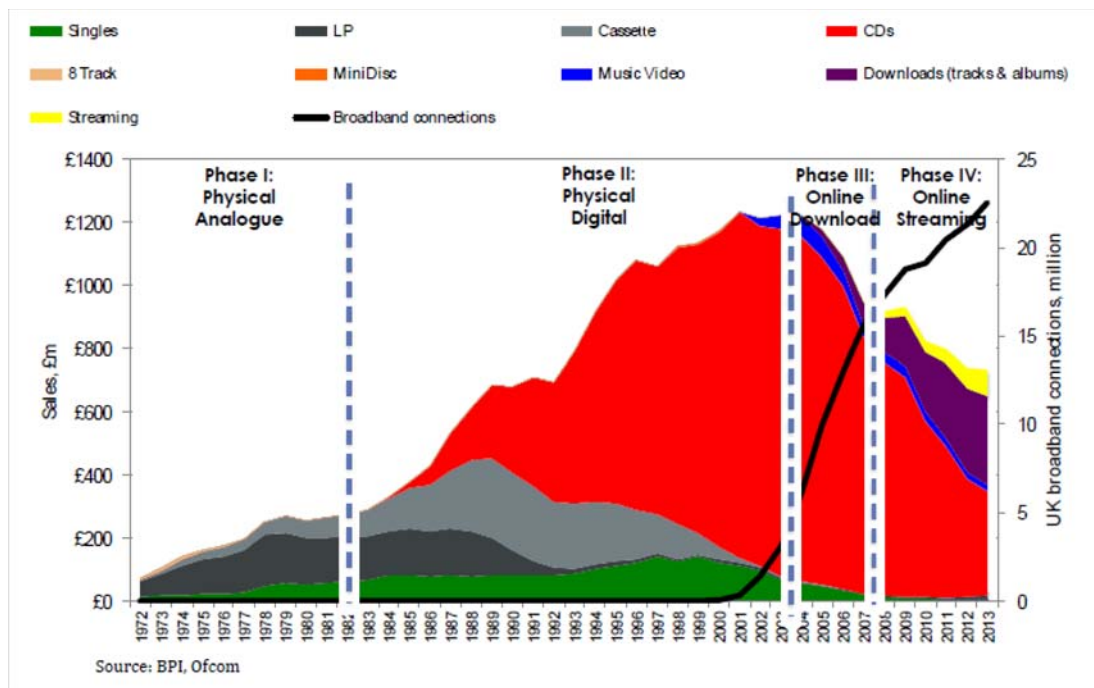


FIGURE 1. Sales of Music

*Old World of Music*

Phase I (up to 1983): Physical Analogue – cassettes, LPs, singles, 8 track

Phase II (1984-2003): Physical Digital – CDs

*New World of Music*

Phase III (2004-2007): Online Downloads – downloads from the Internet

Phase IV (2008-): Online Streaming – streaming from the Internet

*Phase I (Up to 1983): Physical Analogue*

The analogue media of vinyl LPs, singles and cassette tapes of Phase I involved a creation and distribution system that was physical – materials like vinyl and plastic, and sales through over 1,000 high specialist street music stores. These media represented ‘bundles’ of songs, and therefore bundles of compositions by creators of music. The royalties from sales of these bundles were essentially paid to creators on sale, as a fixed percentage of the price.

*Phase II (1984-2003): Physical Digital*

In Phase II, the physical analogue formats of Phase I were creatively destroyed<sup>4</sup> by digitisation, in particular by the CD, through demand-side substitution, as consumers switched to the higher fidelity format and, in some cases, replaced existing physical analogue collections. Figure 1 reveals that albums (mainly CDs) led to a surge in sales of recorded music, at peak adding almost £1bn of incremental revenue over the Phase II period.

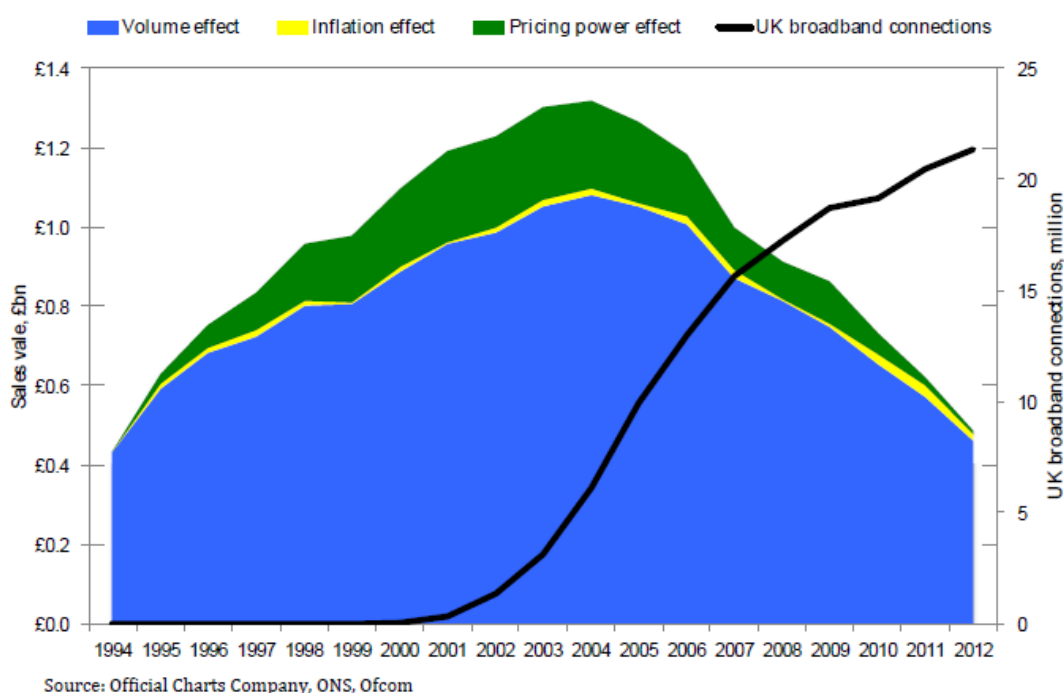


FIGURE 2. Physical Album Sales: Contribution of Prices and Volumes

With no ‘performing’ element, in Phases I and II the royalties from sales of physical formats were distributed from PRS for Music (the MCPS arm<sup>5</sup>) to music publishers. With no Internet, or in the late 1990s only dial-up Internet, piracy had no easy distribution channel; therefore, despite the digitisation of Phase II, it was not a major issue. With supply controlled – no

<sup>4</sup>To use the language of Joseph Schumpeter (1942).

<sup>5</sup><https://www.boosey.com/pages/publishyourself/collectionSocieties.asp>

‘permeability’ in the expanded market boundary created by CDs – prices could be increased (see Figure 2), contributing to increased incomes for creators of music.

For the UK music industry, the ‘Old World’ of physical analogue and physical digital recorded music products, was one of comparative stability and prosperity and marked, for the time being, the high water mark of sales of music to consumers.

*Phase III (2004-2007): Online Downloads*

With digitisation already in place, broadband adoption (secondary axis of Figure 1), starting around the turn of the new millennium, opened the second of the fundamental ‘winds of change’. Fourteen years on, there are now 22 million fixed broadband connections in the UK – around 80% of households. These two winds ushered in seismic changes in sales of music.

First, offering consumers online downloads as alternatives to buying physical formats, they broadened market boundaries and created consumer switching. Significantly, the new format enabled unbundling of music. Whereas in Phases I and II, music was sold in bundles via vinyl LPs, cassettes, and CDs, in Phase III each album was now unbundled into a number of separate tracks. This change benefitted consumers, who now could pay only for what they actually wanted, helping drive down sales value (Figure 1).

Second, they made these market boundaries unsecure or ‘permeable’, by making unauthorized distribution of music files – piracy – possible, contributing to the fall in sales revenue in Figure 1. In the US context, Liebowitz (2005) concluded that “file-sharing has caused the entire decline in record sales that has occurred”<sup>6</sup>. Some explain piracy as a response to the vacuum created in the market by the absence of legal online downloads sales.<sup>7</sup> In this context, legal online download services date from 2004<sup>8</sup> (see examples in Table 1) – when the 6m

<sup>6</sup>Liebowitz (2005). Liebowitz has also conducted an extensive critical review of the empirical literature in this area (<http://www.utdallas.edu/~liebowit/>)

<sup>7</sup>In the report “Search Engines and Piracy – A Discussion Paper” by Mike Weatherley MP (Weatherley, 2014), in his ‘education, carrot and stick’ approach, the carrot is described as “ensuring the availability of legal content by reacting to consumer demand (a responsibility of industry)”.

<sup>8</sup>As an indicator of pent-up demand, the 2005 Communications Market Report, Ofcom stated “music downloads over broadband are taking off: 4.6 million tracks were legally downloaded in Q1 2005 – nearly as many as in the whole of 2004.” (Ofcom, 2005).

broadband connections, focused among ‘Leading Edge’<sup>9</sup> consumers, led Ofcom to describe it as “the year in which broadband finally become a mass market consumer product”.<sup>10</sup> More recent Ofcom research<sup>11</sup> reports that relatively few Internet users (2%) account for the majority (74%) of pirated digital content, including music, and almost a quarter of digital content is accessed illegally.

Table 1: Key Digital Service Providers.

Number of key digital service providers									
11									Google
10							Microsoft	Microsoft	Microsoft
9					Amazon	Amazon	Amazon	Amazon	Amazon
8					Nokia	Nokia	Nokia	Nokia	Nokia
7					Spotify	Spotify	Spotify	Spotify	Spotify
6				We7	We7	We7	We7	We7	We7
5				Omnifone	Omnifone	Omnifone	Omnifone	Omnifone	Omnifone
4				7 Digital	7 Digital	7 Digital	7 Digital	7 Digital	7 Digital
3			Napster / Rhapsody	Napster / Rhapsody	Napster / Rhapsody	Napster / Rhapsody	Napster / Rhapsody	Napster / Rhapsody	Napster / Rhapsody
2		YouTube	YouTube	YouTube	YouTube	YouTube	YouTube	YouTube	YouTube
1	iTunes	iTunes	iTunes	iTunes	iTunes	iTunes	iTunes	iTunes	iTunes
	2004	2005	2006	2007	2008	2009	2010	2011	2012

Source: PRS for Music

Piracy has been viewed as a threat to the commercial viability of online models. In 2007, in its “Downloading” Decision, the UK Copyright Tribunal stated:

“iTunes (who have been pioneers in the downloading sector) regard piracy and the purchase of CDs (in that order) as their main competitors. In order to

<sup>9</sup><http://stakeholders.ofcom.org.uk/binaries/research/cm/telecommunications.pdf>

<sup>10</sup>Ofcom (2005).

<sup>11</sup>Ofcom (2013).

compete therefore, iTunes has had to set up an attractive, easy to use, and reasonably priced online service in order to provide an alternative to piracy”.<sup>12</sup>

In other words, iTunes viewed the price of legal online downloading services as being competitively constrained – through demand-side substitution – by the availability of illegal services. Figure 2 shows the disappearance of pricing power during this phase. To what extent such a decline is “objectively justified” by the disappearance of physical manufacturing and distribution costs under the online model, and to what extent it reflects the competitive threat represented by effectively unlimited digital content at zero price is unclear.

Declining CD volumes on the back of greater online downloads, and greater competition from supermarkets, resulted in the number of specialist music outlets almost halving compared to the latter years of Phase II.<sup>13</sup>

*Phase IV (2007-): Online Streaming*

Phase IV was opened up by faster broadband speeds, as increasing numbers of UK households (27% by 2014, according to Ofcom) adopt fibre. Average actual speeds have increased from just 0.5Mbits/s in 2000, to 3.6Mbits/s in 2008 and almost 18Mbits/s in 2013, enabling streaming of all kinds of content, including music services. This is the New World of music.

With speeds now high enough to eliminate buffering, digitisation, broadband and fast speed have combined to broaden market boundaries even further, by enabling the new entry of music streaming services, on both fixed and mobile devices. This has created opportunities for demand-side substitution by consumers, who access music but never actually own it. Significantly, then, whereas in Phases I-III demand-side substitution took place on the basis of consumer ownership of music, in Phase IV streaming enabled consumers to see access and ownership as part of the same music market.

---

<sup>12</sup>Paragraph 23, p 12; “Downloading” Decision (512Kb); *BPI and Ors v MPCs and Ors* CT84-90/05 – issued 19 July 2007.

<sup>13</sup>The fall was one of the contributory factors in the ‘structural decline’ that helped push HMV into administration in January 2013.

At the same time that the market boundaries for music have expanded through streaming, the value of spending on music has declined, for at least three reasons.

- (1) First, many streaming music services have developed as two-sided markets<sup>14</sup> – with the substitution of consumer spending by a subsidy from advertising enabling the supply of ‘free’ content.<sup>15</sup> For example, YouTube offers its users free access to a range of streamed content, including music, that is directly supported by advertising supplied by a widely range of different businesses: as an illustration, before many videos, there are advertising trailers, promoting a variety of services and products. Whilst both users and advertisers generate and create costs for the YouTube platform (eg billing, server capacity), only one side of the platform (advertisers) are expected to pay for access. Access by users is subsidised by revenues from advertisers wanting to reach them, making the service appear ‘free’ to them. This contrasts with Phases I, II and III, when sales of music were essentially through one-sided markets, in which the ‘money side’ was ultimately based on spending by consumers – an enormous pool, worth almost £1 trillion to the UK economy in 2012. By comparison, the Online element of advertising was less than £5bn<sup>16</sup> in 2012 and reached £6.3bn in 2013. In other words, Online advertising spend is 1/200th the size of UK consumer spending by households. For music, the shift in Phase IV to two-sided markets, where the ‘subsidy’ side is free music streaming services supported by a ‘money side’ of advertisements is a shift to a vastly smaller pool of money, and Online ad spend is spread across many millions of webpages, and not just those of music streaming services.

---

<sup>14</sup>Eisenmann et al. (2006): “two-sided networks differ from other offerings in a fundamental way. In the traditional value chain, value moves from left to right: To the left of the company is cost; to the right is revenue. In two-sided networks, cost and revenue are both to the left and the right, because the platform has a distinct group of users on each side. The platform incurs costs in serving both groups and can collect revenue from each, although one side is often subsidized.”

<sup>15</sup>For example, see Spotify: An Analysis of Spotify’s Market Strategies [www.contrib.andrew.cmu.edu/~dshim/...2\\_col/Spotify\\_mktanalysis.pdf](http://www.contrib.andrew.cmu.edu/~dshim/...2_col/Spotify_mktanalysis.pdf); or p. 96 of Anderton et al. (2013).

<sup>16</sup>Ofcom (2014).



- (2) Second, with no ownership of streaming music, consumers place a lower value on streaming subscriptions than on purchases of CDs.
- (3) Third, streaming is occurring at a time when communications and media activity is a less immersive experience, with competition for time share reflected in the Ofcom finding that UK adults squeeze 11 hours' worth of digital communications and media activity into less than nine hours, as some media activities are conducted simultaneously.<sup>17</sup> This contrasts with the physical analogue world. As an illustration, a report by the BBC "Why have vinyl records become so popular in Germany?"<sup>18</sup> found:

"If you buy a vinyl record, you buy free time for yourself. You slow down. You hold the record and it needs time. You look at the cover. You read the lyrics. You can do all that, slowing down. If you do that on a computer it's like being bombed with information. That's the difference. With vinyl, you hold it in your hand. You take your time: put it on the record-player and listen to the music."

In addition, streaming now has to compete for wallet share against an array of technology devices, software and services: for example, a new iPhone 6 Plus retails at over £619 in the UK, compared to a fifth decile median gross income for a single adult in the UK of £17,600.<sup>19</sup>

Figure 3 is a simple regression of number of broadband connections against recorded music sales value. Over Phases III and IV, broadband (and its faster speeds over time) have significant explanatory power (given we are assuming a causal relationship of the form  $y = a + bX$ ) in the decline in sales of music ( $R^2 = 0.88$ ). The explanatory power has become even greater

---

<sup>17</sup>Ofcom (2014).

<sup>18</sup>16 December 2013: [www.bbc.com/culture/story/20131216-breaking-records-german-vinyl](http://www.bbc.com/culture/story/20131216-breaking-records-german-vinyl)

<sup>19</sup>UK incomes: how does your salary compare? The Guardian, Tuesday 25 March 2014.

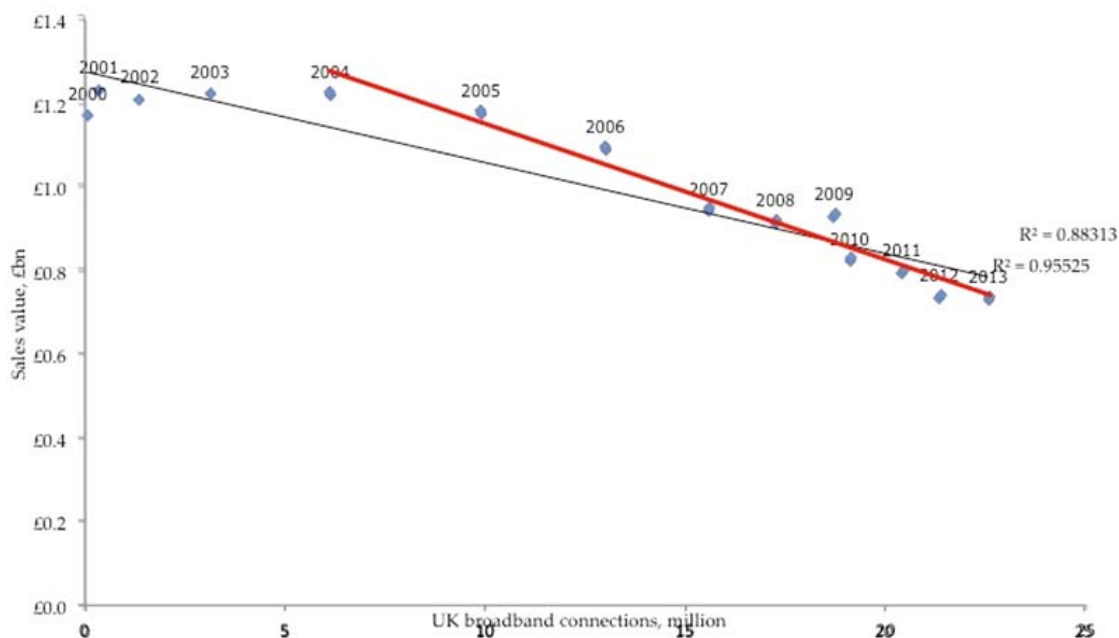


FIGURE 3. Broadband (and its Higher Speed) and the Fall in Music Sales. Source: Ofcom, BPI.

since the UK reached mass-market adoption in 2004 ( $R^2 = 0.96$ ). The latter relationship suggests that if all UK households (circa 28m) adopted broadband the value of recorded music sales would be just over £500m, compared to £731m in 2013.<sup>20</sup>

### 3. NOMINAL ROYALTIES FOR CREATORS OF MUSIC

Figure 4 shows that PRS for Music has grown its royalties from £360m in 1998 to £666m in 2013.<sup>21</sup> The big growth area has been in international royalties – mainly for broadcasting, radio and live performances overseas – collected through its affiliates in over 100 countries. They have more than tripled over the period, from £62m in 1998 to £201m in 2013. This is

<sup>20</sup>That said, the winds of change are causing so much structural change within the music industry that forecasting future sales using past relationships between data is likely to result in considerable error.

<sup>21</sup>These figures include both performing and mechanical royalties.

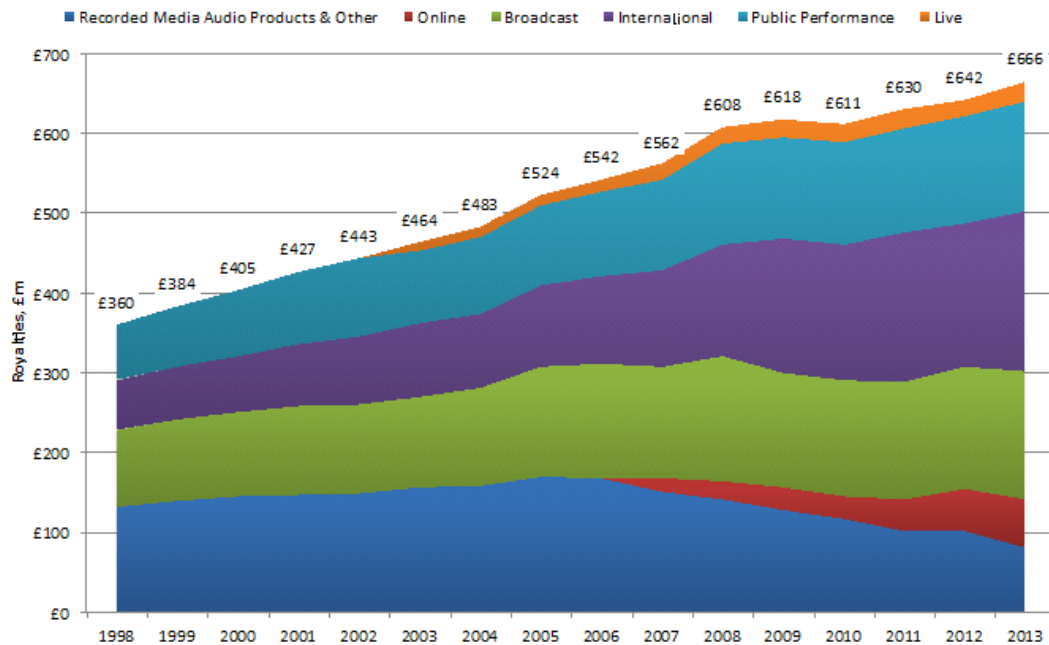


FIGURE 4. Royalties of PRS for Music. Source: PRS for Music.

the equivalent of a jump from 17% of the total to 30% of the total. The corresponding data for the percentage breakdown in PRS royalties is reported in Table 2.

Table 2: Breakdown of PRS for Music royalties (%).

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Recorded Media Audio Products &amp; Other</b>	37%	36%	36%	35%	34%	34%	33%	32%	31%	27%	23%	21%	19%	16%	16%	12%
<b>Broadcast</b>	27%	27%	26%	26%	25%	24%	25%	26%	26%	25%	26%	23%	24%	24%	24%	24%
<b>Online</b>										3%	4%	5%	5%	6%	8%	9%
<b>International</b>	17%	17%	17%	18%	19%	20%	19%	19%	20%	22%	23%	27%	28%	30%	28%	30%
<b>Public Performance</b>	19%	20%	21%	21%	22%	19%	20%	19%	19%	20%	21%	21%	21%	21%	21%	21%
<b>Live</b>						2%	3%	3%	3%	3%	4%	4%	3%	4%	3%	4%
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: PRS for Music.

The overall increase in royalties masks the significant decline in those from Recorded Media – from a peak value of £170m in 2005 to £81m in 2013, and from a peak share (over the

period) of 37% in 1998 to 12% in 2013 (Table 2). The focus of this paper on sales of recorded music reflects their historic importance to overall creator royalties. In the New World, taking sales of recorded music alone, creators are experiencing lower royalties, with the growth in Online royalties insufficient to offset the decline in royalties from physical analogue and digital products.

The decline in royalties from the latter is partly driven by lower sales (see, for example, Figure 2), and the factors causing these to decline. However within the collecting society system there are additional drivers of falling royalties for creators from sales of recorded music.

First, the shift in Phase IV to two-sided markets, where the ‘subsidy’ side is free music streaming services supported by a ‘money-side’ of advertisements is a shift to a vastly smaller pool of money, and Online ad spend is spread across many millions of webpages, and not just those of free music streaming services. Consequently, per stream rates (revenues/volume of streams) are relatively lower for ad-supported streaming music services than for other types of music service – from 1/100th or less compared to the larger circa 5p one-off upfront payment per track from physical analogue, physical digital and online download phases. For creators of music, or content owners, these lower ad-funded rates have created an inter-temporal challenge – lower earnings immediately compared to the ownership of music model, but possibly higher earnings than the ownership of music model over the very long term. That said, any higher earnings would have to be discounted to reflect the impacts of inflation and interest rates.

Second, the unbundling of music in Phase III into separate tracks has eliminated the ‘free riding’ present in bundling via physical analogue and physical digital albums, when songwriters and composers could receive royalties even when there was no demand for their work, simply because it was on an album that was popular for the other songs on it. This change has resulted in lower royalties to some creators.

Third, in Phase III, broadband Internet reduced transactions costs and created new opportunities to disintermediate collecting societies, with rights holders directly licensing their online rights to licensees. They did this because they felt they could obtain greater value for their repertoire by negotiating directly rather than by leaving their repertoire in the traditional ‘blanket’ licenses offered by collecting societies like PRS for Music. This fragmentation of rights has broadened the market boundaries, reducing online royalties flowing through the collecting society system.

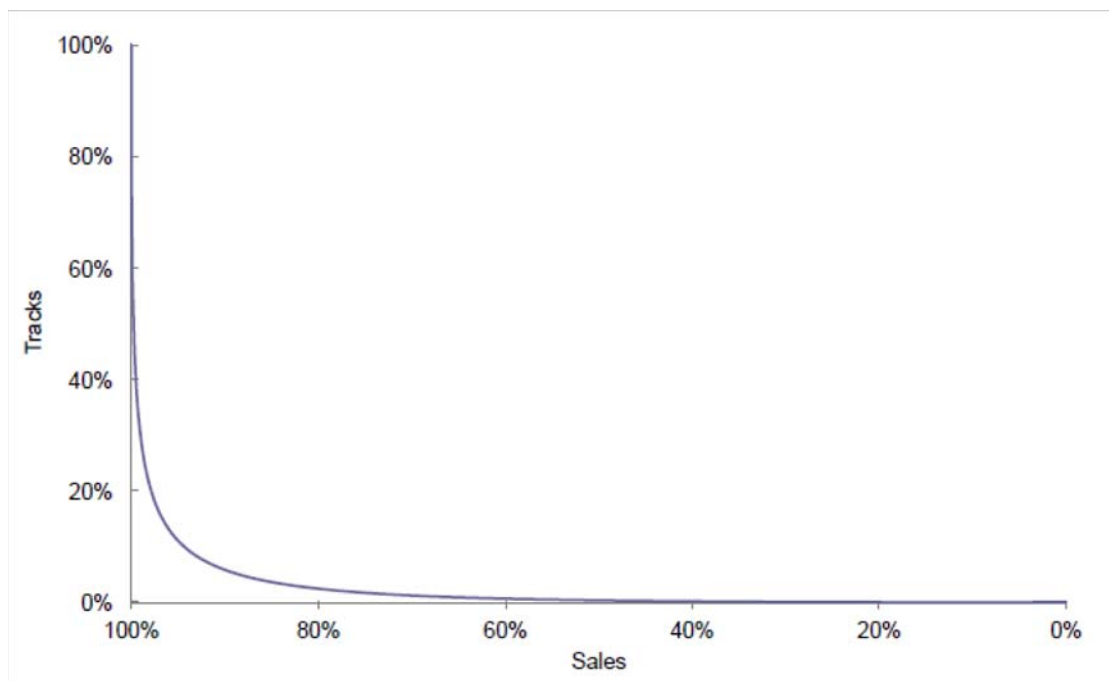


FIGURE 5. A Typical Long Tail in Online Music Sales

A fourth issue, not related to the level of royalties from sales of recorded music but to its distribution, is the emergence of the ‘long tail’ in online music sales (a schematic view of which is shown in Figure 5): relatively few tracks (eg 10%) account for the vast majority (eg 90%) of the overall sales value. In other words, UK online music sales are primarily driven by relatively few of the 100,000 members of PRS for Music.

## 4. REAL SALES OF MUSIC

In contrast to Figure 1, Figure 6 shows that in real (2000 base year) prices sales of music are at the same level in 2013 as they were more than 40 years earlier in 1972.

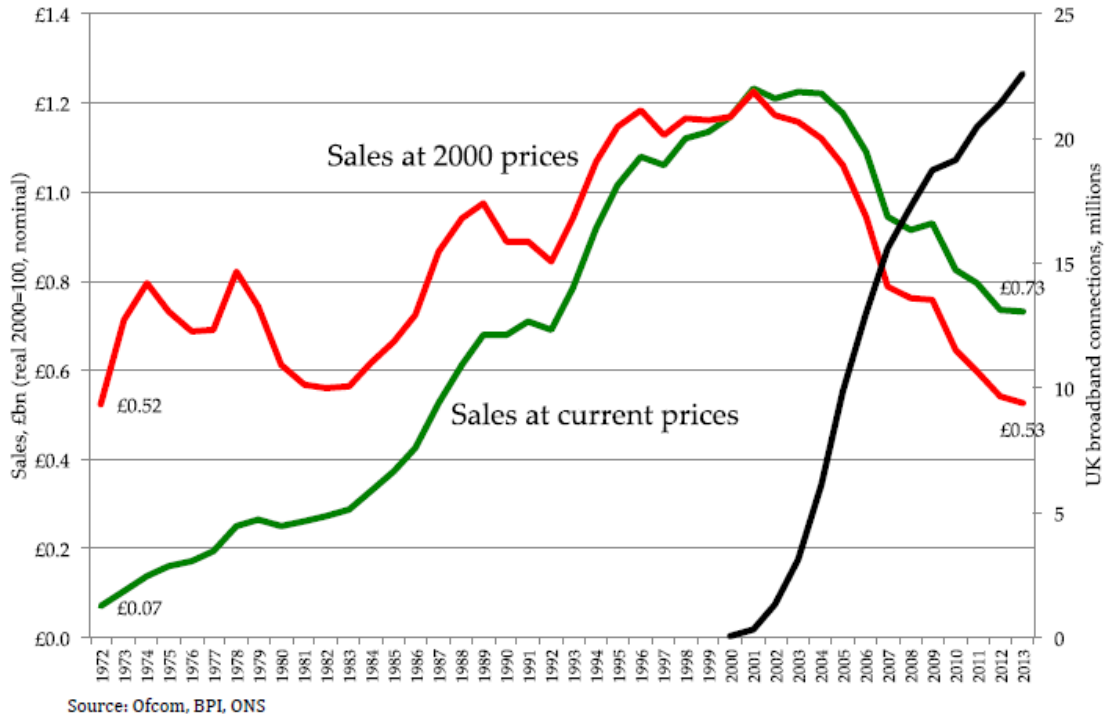


FIGURE 6. Real Decline in Online Music Sales

## 5. REAL ROYALTIES FOR CREATORS

Table 3 shows the royalties of PRS for Music at real prices, calculated over all combinations of periods from 1998 to 2013. The significant result is that for all periods between 1998-2004 and 2013 overall royalties have grown in real terms (figures in green). However, for all periods since 2005 to 2013 (with the exception of 2012-2013) royalties have declined in real terms (figures in red).

Table 3: Real Royalties of Creators.

Base year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1998	£360	£378	£387	£402	£410	£417	£422	£444	£446	£443	£461	£471	£445	£437	£431	£434
1999		£384	£393	£408	£416	£423	£428	£451	£453	£450	£468	£478	£452	£443	£437	£440
2000			£405	£420	£429	£436	£441	£465	£466	£463	£482	£493	£465	£457	£450	£453
2001				£427	£436	£444	£448	£473	£474	£472	£491	£501	£474	£465	£458	£461
2002					£443	£451	£456	£481	£482	£479	£499	£510	£482	£472	£466	£469
2003						£464	£469	£495	£496	£493	£513	£524	£496	£486	£479	£483
2004							£483	£509	£511	£508	£529	£540	£510	£500	£494	£497
2005								£524	£526	£522	£544	£555	£525	£515	£508	£511
2006									£542	£539	£561	£573	£541	£531	£524	£527
2007										£562	£585	£598	£565	£554	£546	£550
2008											£608	£621	£587	£576	£568	£572
2009												£618	£584	£573	£565	£569
2010													£611	£599	£591	£595
2011														£630	£622	£626
2012															£642	£646
2013																£666

Source: ONS, PRS for Music.

Table 4: Average Gross Royalty Per PRS for Music Member<sup>22</sup>

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	% change max to min
PRS for Music membership (rounded)	33,000	34,000	36,000	37,000	38,000	40,000	42,000	44,000	46,000	48,000	51,000	58,000	68,000	79,000	89,000	91,000	
Real royalty per member (1998=100)	£10.917	£11.118	£10.749	£10.853	£10.790	£10.424	£10.036	£10.100	£9.695	£9.234	£9.044	£8.125	£6.548	£5.528	£4.840	£4.765	-57%
Real royalty per member (2005=100)								£11.905	£11.427	£10.884	£10.660	£9.576	£7.718	£6.515	£5.705	£5.616	-53%
Nominal royalty per member	£10.917	£11.289	£11.237	£11.546	£11.671	£11.602	£11.503	£11.905	£11.790	£11.712	£11.926	£10.658	£8.988	£7.981	£7.211	£7.315	-40%
Real royalty per member (1998 prices and membership constant at 2013 levels)	£3.959	£4.154	£4.252	£4.413	£4.506	£4.582	£4.632	£4.884	£4.901	£4.871	£5.069	£5.178	£4.893	£4.799	£4.734	£4.765	

Source: ONS, PRS for Music.

<sup>22</sup>Of course, given the existence of long tails in earnings, averages are a very rough benchmark.

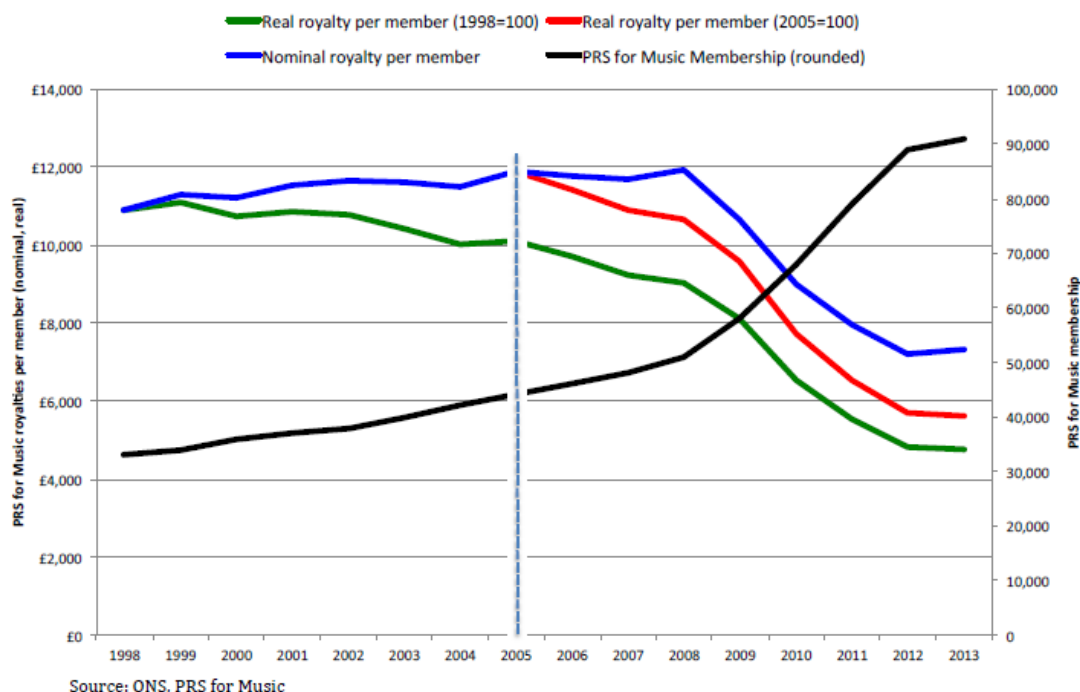


FIGURE 7. Average real royalties of creators

Table 4 combines these nominal and real annual gross royalties with membership numbers to derive average gross royalties per member. To facilitate understanding, these figures are presented in Figure 7.

There are multiple observations around Figure 7:

- (1) average nominal royalty per member (blue line) peaked in 2008, at circa £12,000, and thereafter declined sharply, as membership numbers grew by circa 80%, due to membership fees being removed. It reached a low in 2012 of circa £7,000, around 40% below its peak;
- (2) since 1998, average real royalty per member at 1998 prices (green line) peaked at circa £11,000 in 1999 before declining steadily to 2004, more rapidly from 2005 to 2008, and



even more sharply thereafter, as the membership effect took hold, to a low in 2013 of circa £5,000. This was almost 60% below its peak value;

- (3) average real royalty per member at 2005 prices declined sharply from 2005 to 2008, and more sharply thereafter to a low of circa £6,000 in 2013, some 50% below its 2005 value;
- (4) the decline in average royalties is only partly explained by sharply increased membership numbers after 2008, with faster declines in the average in real terms readily apparent from 2005.

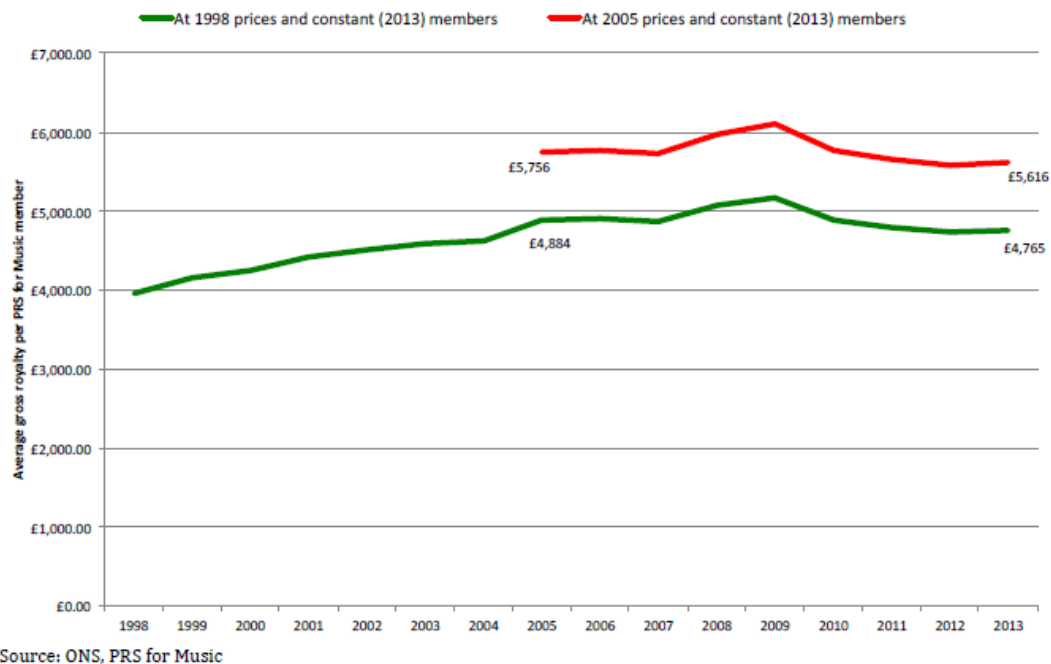


FIGURE 8. Average Real Royalties of Creators At Constant (2013 Level) Membership Numbers

To neutralise the impact of increasing membership numbers on the average, Figure 8 presents average gross royalties based at 1998 and 2005 prices, but constant (2013 level) numbers of members. It is fairly clear that since 2005 the average real royalty has declined,

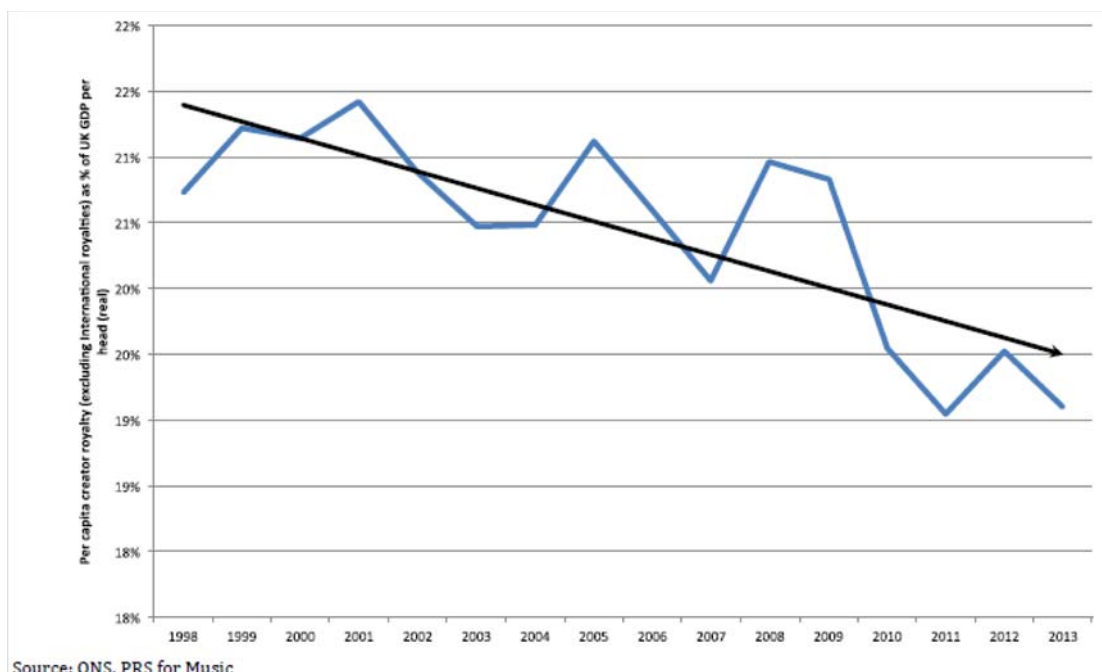


FIGURE 9. Ratio of Per Capital Creator Royalty to UK Per Capita GDP (Both at 1998 Prices, PRS Members at Constant (2013) Numbers, PRS Royalties Excluding International)

and this decline is down to changes in the effectiveness of the collecting society operating system and not a reflection of changes in membership numbers.

Figure 9 shows the ratio of average real creator royalties (excluding International receipts) to UK per capita GDP (that uses population numbers in each year). The significant result is the trend decline in the ratio, suggesting that creators of music are becoming relatively worse off compared to the average person in the UK.

The deterioration in the relative position of creators highlights the increasingly important role played by International in determining overall creator royalties. Figure 10 compares average creator royalties (1998 prices, constant 2013 members) with and without International receipts. The key result is that, without International, the decline in the real average gross royalty from 2005 to 2013 is 16% compared to only 2% with International. Without the

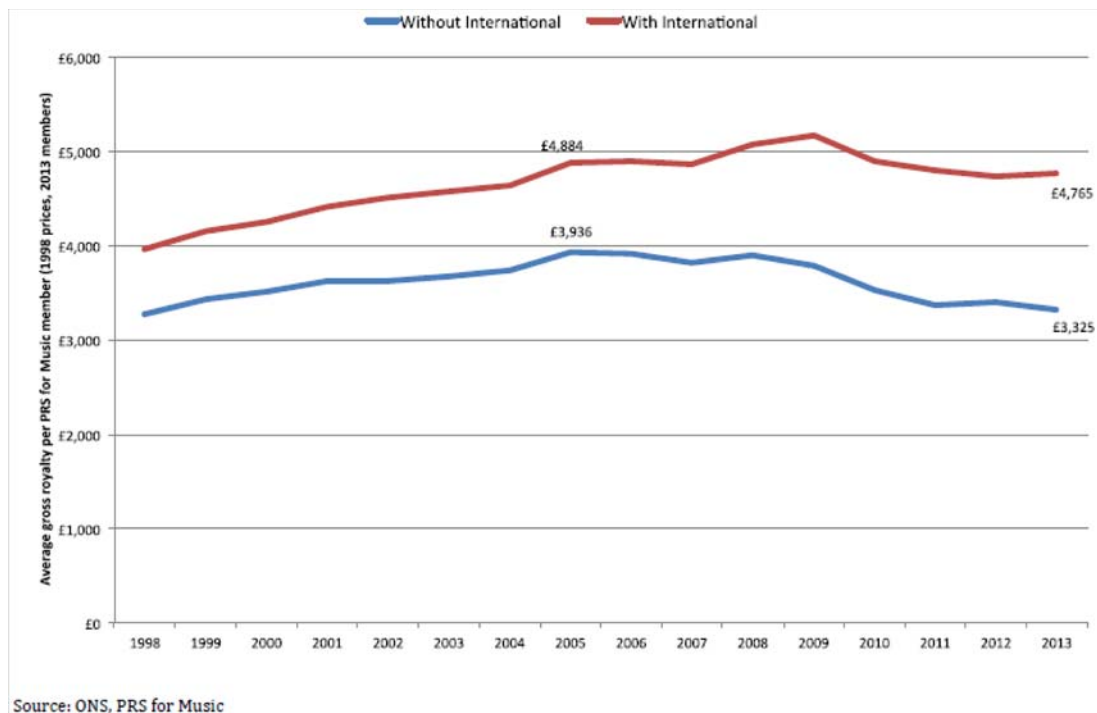


FIGURE 10. Importance of International Royalties to Creators (1998 Prices, PRS Members at Constant (2013) Numbers)

contribution of International – especially its radio, television, and public performance income streams – to soften the impact of the decline in royalties from recorded media like CDs, the absolute position of creators of music would be significantly worse today. Figure 10 indicates that their absolute position would be comparable to fifteen years earlier, in 1998. Clearly, for creators of music represented by PRS for Music, the consumption of their music in other countries is vital to keeping their incomes closer to the historic peak.

We have also examined the possible future outlook for the data on royalty per member, up to the year 2018. To do this we have adopted a simple three-step approach, which is explained as follows:

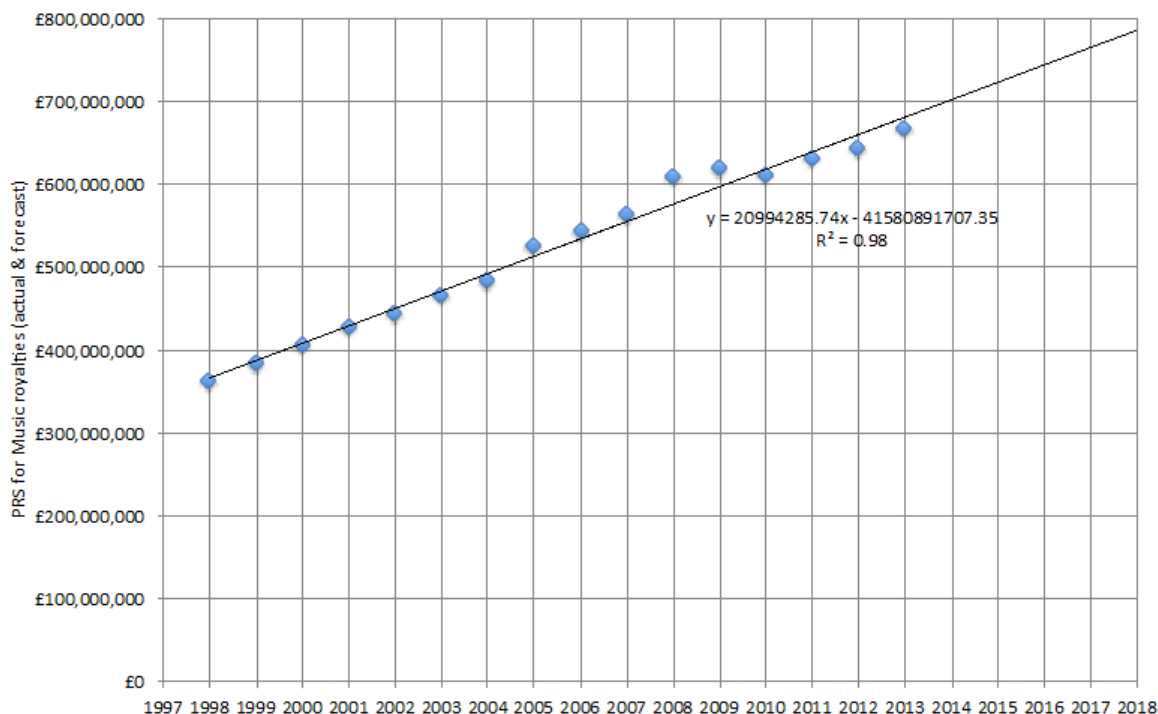


FIGURE 11. Forecast PRS for Music Royalties

- (1) In the first step, we use the regression that is represented in Figure 11 to project royalties forward from 2013 to 2018, where time in years is our simple explanatory variable.
- (2) In the second step of the three, we deflate these nominal actual and forecast royalties by the Retail Price Index (RPI), where forecasts for the RPI were taken from HM Treasury Medium Term Forecasts at August 2014 (see <https://www.gov.uk/government/uploads/.../201408forecomp.pdf>).
- (3) Finally, the third step in the process is to divide the resulting annual gross royalty in real terms by PRS for Music membership in 2013. All of the resulting numerical series from these calculations are set out in Table 5.

Table 5: Average Gross Real Royalty Per PRS for Music Member.

	PRS for Music royalties (actual)	PRS for Music royalties (forecast)	RPI (rebased to 1998, actual)	RPI forecast (HM Treasury Medium Term Forecast, Independent Average, August 2014)	RPI (rebased 1998; actual & forecast)	PRS for Music members at 2013	Real royalty per member (constant 1998 prices, constant 2013 members)
1998	£360.27		100.00		100.00		£3,958.98
1999	£383.82		101.53		101.53		£4,154.01
2000	£404.54		104.54		104.54		£4,252.29
2001	£427.21		106.38		106.38		£4,412.84
2002	£443.48		108.16		108.16		£4,505.56
2003	£464.06		111.30		111.30		£4,582.03
2004	£483.12		114.61		114.61		£4,632.22
2005	£523.80		117.86		117.86		£4,883.63
2006	£542.35		121.61		121.61		£4,900.87
2007	£562.15		126.83		126.83		£4,870.85
2008	£608.22		131.86		131.86		£5,068.78
2009	£618.18		131.18		131.18		£5,178.33
2010	£611.17		137.26		137.26		£4,892.97
2011	£630.49		144.38		144.38		£4,798.68
2012	£641.82		148.99		148.99		£4,733.97
2013	£665.70		153.53		153.53	91000	£4,764.80
2014		£688.56		2.40	157.21		£4,812.91
2015		£711.42		3.10	162.09		£4,823.18
2016		£734.28		3.50	167.76		£4,809.82
2017		£757.14		3.40	173.47		£4,796.48
2018		£780.00		3.40	179.36		£4,778.82

Source: Actuals from ONS, PRS for Music; forecasts by author.

Figure 12 reveals that, on the basis of the assumptions in Table 5, the real royalty per PRS for Music member in 2018 will be £4,779 – less than both the peak (2009) and 2005 values. What is interesting about this result is that it reinforces the observations around Figure 10. Despite a forecast uplift in overall royalties of £120m between 2013-2018, from £666m to £780m, the average real royalty, on the assumptions made, is expected to be broadly similar in 2018 (£4,779) to what it was in 2013 (£4,765). This forecast average royalty will be below the average of 2005. In other words, royalties to creators of music are expected to remain an area of no growth in real terms seen over the long term - from 2005 onwards.

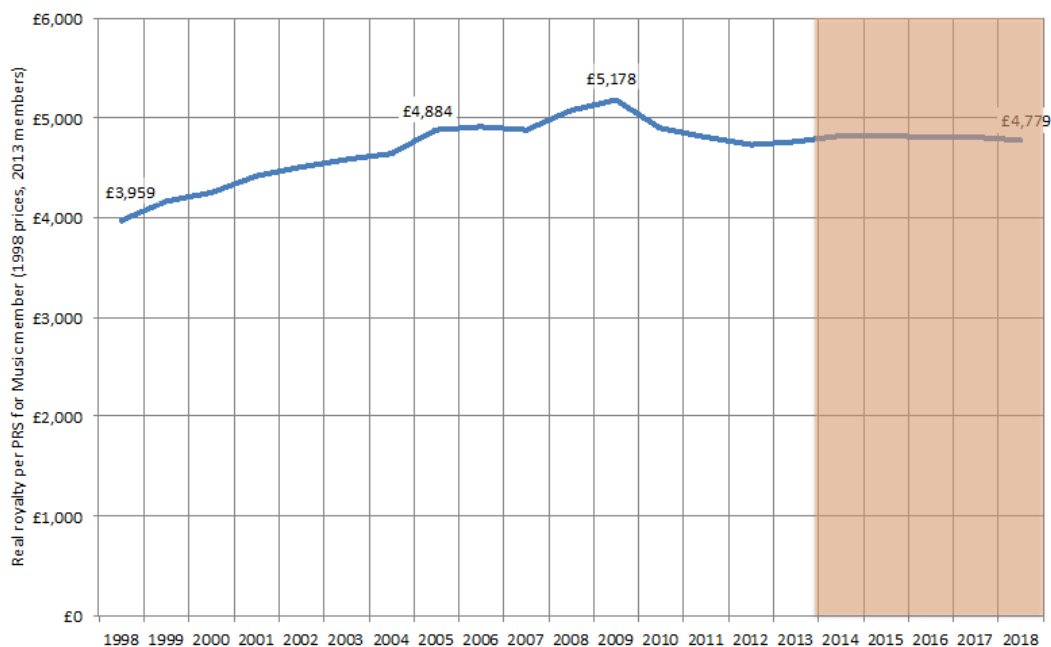


FIGURE 12. Forecast Gross Real Royalty Per Head for PRS for Music Members.  
Source: ONS, PRS for Music (actuals); forecasts (mine).

So what does all this data analysis tell us? For me, it tells us that the view presented earlier in Figure 4 of growing prosperity for creators of music is nothing more than an optical illusion. Figure 13 shows that, overall and in real terms, royalties in 2018 are likely to be *lower* than in 2005.

Adjusting for changes in membership, per capita royalties have also declined since 2005, especially when International receipts are excluded. Overall royalties would have to increase to £846m by 2018 for real per capita royalties to reach a new high. This is an increase of £180m, compared to the maximum 5-year increase between 1998-2013 of £125m (2003-2008), and an average 5-year increase of £81m. In other words, based on historic patterns, there is no evidence to support the view that real per capita creator royalties will increase by 2018.

In short, these changes reflect the impact of the ‘winds of change’ on the operating environment of collecting societies like PRS for Music, on both supply and demand sides. Growing

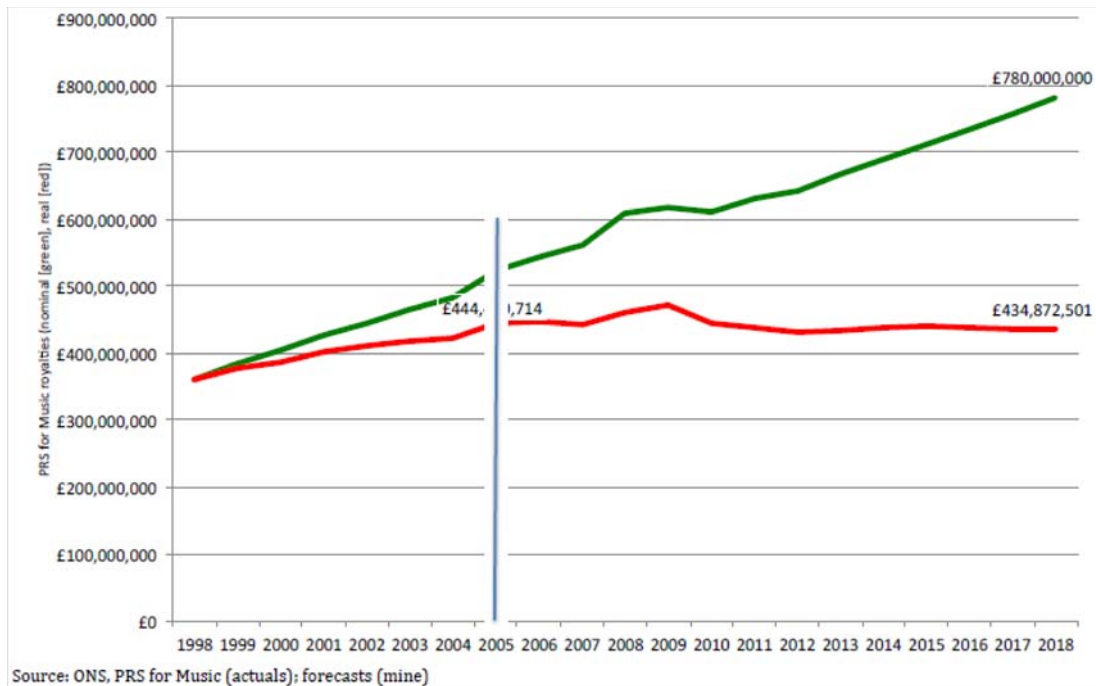


FIGURE 13. The ‘Optical Illusion’: Nominal v Real Royalties

International receipts have been the saving grace for creators of music, masking what would have been a much greater decline, but the future outlook for royalties remains bleak, with earnings in 2018 forecast to be below more than a decade earlier.

## 6. WEAKNESSES AND THREATS IN THE NEW WORLD

The patterns in nominal and real sales of music and royalties, and the factors behind them, have created, in the New World, strategic weaknesses and threats in the collecting society system. And, by extension, for creators of music.

### *Weaknesses*

(a) Falling real royalties: The key weakness is that, post-2005, overall royalties are falling in real terms. A key driver of this is that physical analogue and physical digital royalties are declining faster than the increase in royalties from other sources.

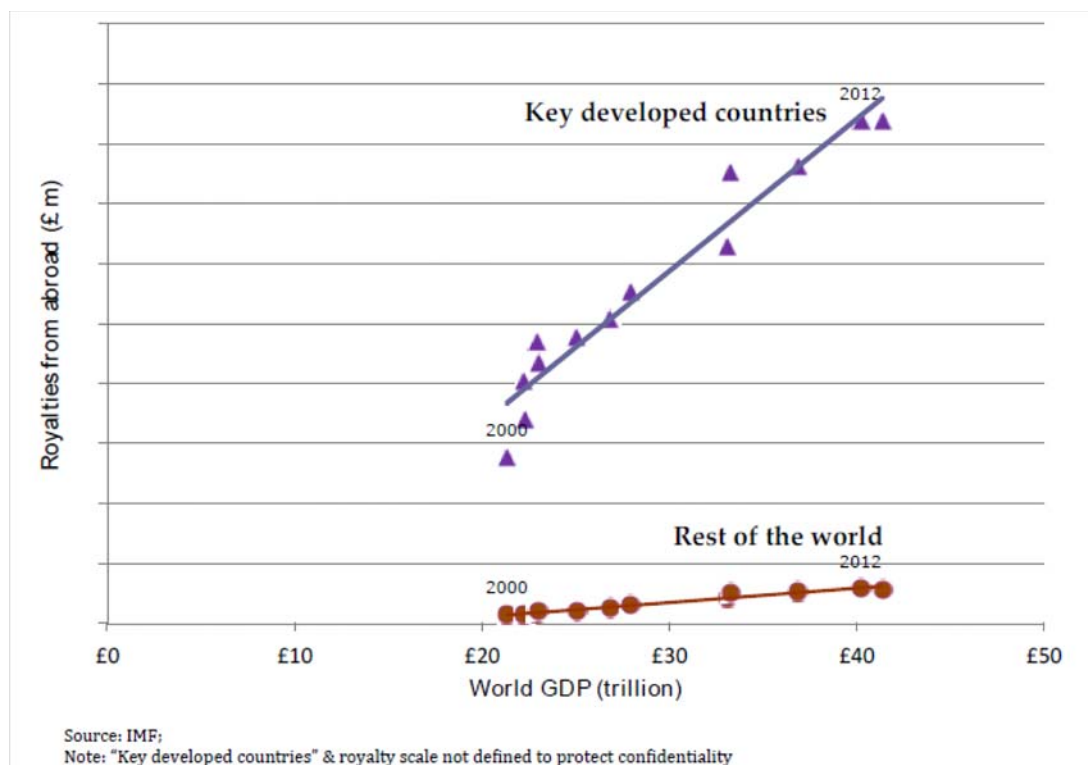


FIGURE 14. Monetising Newer Centres of Global Wealth Creation: The Biggest Challenge for the International Collecting Society System

(b) Inability to monetise new centres of global wealth creation: Another, less obvious, but even more significant factor at work is that most International royalties are generated by a narrow group of developed countries.<sup>23</sup> This was not an issue in 2000, when this group generated 75% of world GDP. However, by 2018 that share will decline to around 50%. Figure 14 shows that the real, hidden issue, in the international collecting society system is its inability to date to monetise growth in developing countries: they are creating trillions of dollars of additional world wealth, yet this translates into only very marginal increases in royalties for creators. As we can see from Figure 10, currently International receipts make a significant difference to per capita creator royalties, considerably softening the impact of

<sup>23</sup>The countries in the group are not identified for reasons of confidentiality, nor is the scale in Figure 11.



changes in the domestic collecting society operating environment since 2005 that have seen per capita royalties fall 16%. However, the growth is still insufficient to actually increase per capita royalties in real terms. Monetising the new centres of global growth is key to increasing creator royalties in real terms.

(c) Demographics reduce physical digital sales: Among other things, one insight from Figure 15 is that the key demographic supporting sale of CDs is the over-40s. As this cohort disappears over time, so will the support provided to sales, feeding into lower royalties for creators, increasing pressure on other sources of royalties to make up the difference.

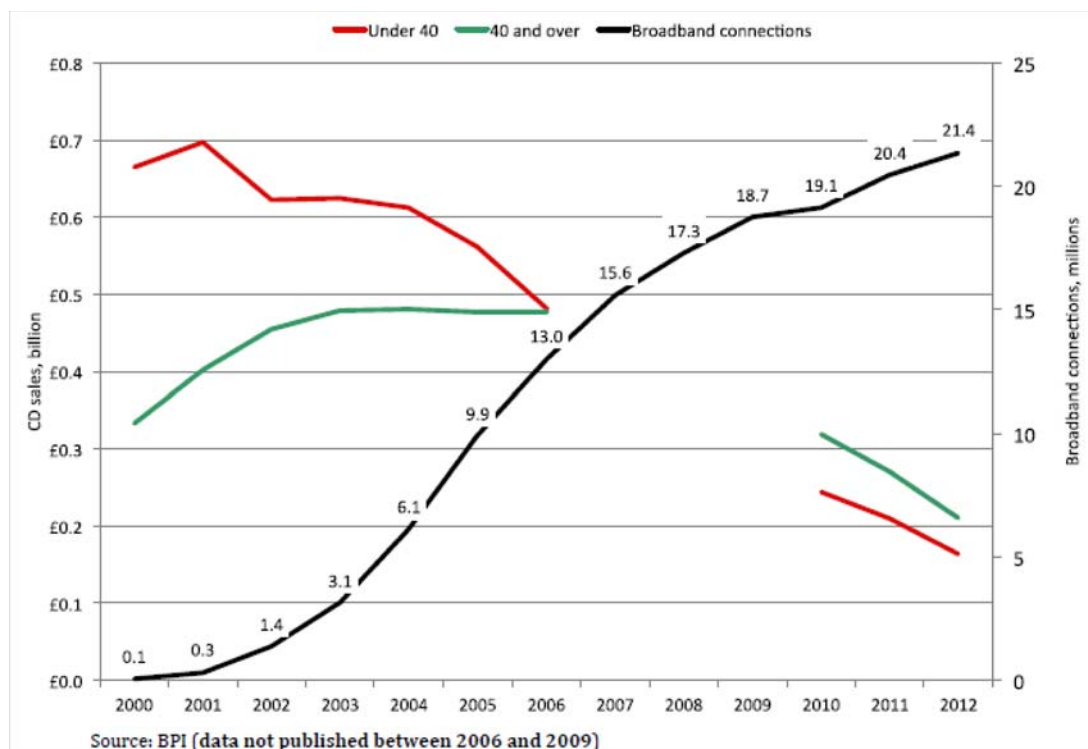


FIGURE 15. Demographic Underpinnings of CD Sales

(d) Legal drag: The law has failed to keep pace with the ‘winds of change’. In public performance, the Copyright Tribunal set the current tariff for Live popular music events at 3% of box office receipts - in 1988, or 26 years ago – when digitisation was creating Phase II.

Broadband, increasingly faster connections, and changes in hardware, software and services have all combined to reshape the ticketing of Live events. Secondary market ticketing has grown substantially, into a market worth hundreds of millions of pounds,<sup>24</sup> with the revenues falling outside those against which PRS for Music is able to raise royalties.

(e) Piracy: The absence of legal online download alternatives until broadband became a mass market service in 2004 may have created a vacuum into which piracy was able to seed itself, with possibly permanent consequences in terms of subsequent consumer behaviour. Rather than addressing why legal online downloads only emerged in the UK as late as 2004, when the Internet reached a ‘mass market’ level, Waldfogel (2012) points out “Twelve years into the Napster era, economists have devoted substantial attention to revenue consequences of unpaid file sharing.” Given this focus elsewhere, it seems there is a missing space in research tracing the linkage between unavailability of legitimate online music services and the development and persistence of piracy over time.

(f) Two-sided markets: ‘Free’ streaming services are funded by an advertising pot for all online sites that was worth only £6.3bn in 2013 – a small fraction of overall consumer spending of £1 trillion. The lower value for online advertising spend creates downward pressure on online streaming rates, and ‘fractional’ royalties calculated on these advertising spend figures mean creators need sometimes hundreds of streams to earn what they would do from a single online download or track on a physical digital or physical analogue album.

(g) Relative bargaining strength: The DSPs that emerged in Phase III are in some cases now worth billions. Apple and Google alone have a combined market capitalisation of more than \$1 trillion (at November 2014). If they were a country, they would be among the top 15 in the world. Collecting societies have to operate within this more challenging economic environment to maximise the value of the repertoire of their members, but as we have seen

---

<sup>24</sup><http://www.ukmusic.org/news/all-party-parliamentary-group-on-music-slams-secondary-ticketing>

from Table 3 and Figures 8 and 10, real royalties for creators have declined since 2005, a year after the emergence of DSPs.

### *Threats*

(a) Competition for consumer time and wallet: The ‘winds of change’ are delivering new devices, software and services into the media and communications market, against which music has to compete for both time and wallet share. This is likely a permanent threat to growing value from traditional sales of music to consumers.

(b) Uncertainty of continuing growth in broadband and faster speeds: The ‘winds of change’ are incomplete. In the UK, only 80% of households have adopted broadband and average speeds will climb as superfast, fibre-based, services increase their penetration of just over a quarter of these connected households. The past, summarised in Figure 3, shows a close association between greater uptake / higher speed and lower sales, with the extrapolation of the relationship from 2004 suggesting full penetration of broadband would leave music sales at circa £500m. Such a fall in sales would continue to feed through into lower royalties. As well, broadband is associated with increasing price transparency (eg PriceRunner, Skyscanner, MoneySupermarket), reducing the pricing power of licensees, making them more resistant to increases in their cost base from higher license fees from creators of music.

(c) Growing concentration of online advertising. Google has an estimated 40% share of global online advertising. The increasing share of Google in online advertising compounds the weakness of two-sided markets, so that Google increasingly determines the earnings of creators of music offered by ad-supported services.

(d) Impact on long run supply of creative works / relevance of collecting societies. Lunney (2014) does not see this as an issue, arguing that “less revenue may lead to more original works”. This is “because copyright protection is uniform, broadening copyright also increases the revenue associated with works that are not at the margins, works that would have been profitable and so brought forth with less or even no copyright protection. As copyright

broadens, it increases the “excess” incentives associated with these preexisting works. As these excess incentives grow, they may, at some point, lead popular authors to substitute leisure for work, and so perversely lead to fewer works from our most popular authors. Broader copyright may thus entail a trade-off between two marginal effects: More original works from new authors along one margin, but fewer original works from the most popular existing authors along a second. If the second effect outweighs the first, then more revenue may lead to fewer original works. Conversely, less revenue may lead to more original works.” However, Ford (2014) counters that this “analysis suffers from defects so severe as to render it useless for guiding public policy. Not only does Dr Lunney use an unsound measure of music output—a select group of hit songs chosen under different standards—but then he applies statistical techniques certain to produce meaningless results. Put plainly, his statistical analysis is inexpertly performed; the empirical model is poorly motivated, poorly designed, and improperly estimated.” This paper takes a different, direct and perhaps more obvious tack: given it dates the decline from 2005, and growing royalties from International have limited the decline to 2% rather than 16%, it is both far too early and not sufficiently significant for an impact on long run supply to be discerned. However, a more significant and sustained decline in real royalties could result in the long run supply of creative works falling or result in collecting societies finding themselves being increasingly challenged by their members as the best way of those members maximising the value of their repertoire.

(e) ‘Bush fire’ effect: Disintermediation of collecting societies in online could spread further, to broadcasting, as ‘winds of change’ result in more viewing being done online. In the United States, rights holders directly license more work in broadcasting and the threat is that rights holders in the UK will be become empowered by technology to do the same.

(f) Loss of relevance: The one-sided markets of growing revenue of Phases I & II have given way to ad-supported markets in Phase IV, lower sales and greater bundling of music with other different services. Despite the decline in spend on music, the value and contribution of

music to the economy in Phase IV is arguably being understated via the national accounts. Three examples illustrate the issue. First, PRS for Music research<sup>25</sup> from 2011 showed that music pubs consistently achieve more wet sales revenue than non-music pubs every day of the week, of between 44% (£230 a day) and 60% (£485). Second, in August 2013, Vodafone launched its 4G service by bundling in a free six month subscription to Spotify Premium. Third, BPI figures show advertising spend on music has increased from £2.4m in 2008 to £14.5m in 2012.

In all three examples, the incremental revenues created are reported in other sectors, not in music, despite a ‘nexus’ commercially between music and that incremental revenue. The result is that its measured economic contribution is understated. In some sense, the issue for music is similar to that in computing, captured by Robert Solow’s observation: “You can see the computer age everywhere but in the productivity statistics.”<sup>26</sup> Today, despite the growing use of music in the economy by consumers and, directly and indirectly, by businesses, its overall net revenues have remained more or less stable in nominal terms, and declined in real terms. To paraphrase the Solow paradox, “You can see the value and contribution of music everywhere but in the economic statistics.”

## 7. OPPORTUNITIES IN THE NEW WORLD

The weaknesses and threats to collecting societies in the New World create a need for solutions, and thus opportunities.

(a) Target new global centres of world growth: By far the biggest economic opportunity in the New World for improving creators’ incomes is targeting the new centres of global growth. If the slope of the rest of the world line in Figure 14 could be increased even slightly, the result would deliver many millions of pounds of additional royalties to creators.

---

<sup>25</sup><http://www.prsformusic.com/users/businessesandliveevents/musicforbusinesses/Documents/CGA%20Summary.pdf>

<sup>26</sup>Solow (1987).

(b) Introduce new mechanisms for valuing rights: Phase IV ‘winds of change’ of digitisation, broadband and faster speeds, combined with devices, software and services open opportunities for using market mechanisms for valuing creators’ rights. “Imagine your album or film in physical form is being sold at auction. The bidding might start at \$1. In the crowd, you hear ‘two dollars!’. Then three, then six, and it sells for \$10. Now what if that was the only way you sold your release to your fans, one by one. When you want to sell your album globally, you might set up an auction in every major country, and in every major city. You might try to set up auctions in locations where you know your fans might be – like at a college, or in a library, or right after a popular rock show or related film screening. By now, you’ve honed your strategy, realizing that the better the crowd of people at your auction align with your product, the higher it sells for. In some auctions it sells for \$1; the right crowd just wasn’t there and due to some competing releases that came out, you had some tough competition. But some days it might sell for \$20; the timing was perfect and the right people were in the crowd. This is the world of YouTube, where the value of your content is a fluid concept which varies by person, by stream, by location, and hundreds of other variables that collectively represent supply and demand.”<sup>27</sup>

An opportunity for collecting societies and publishers is to mirror this fluidity in the value of their rights to DSPS in their licensing models, and thereby extract some of the consumer surplus currently enjoyed by those DSPs.

(c) Increased penetration of public performance licensing: Penetration of licensing among businesses is far from complete, providing an opportunity to increase licensing and royalties.

(d) Review the level, structure and scope of royalty rates: For example, at 3% of box office receipts, the rate for Live popular music performances in the UK is far below the 11% top rate globally. In addition, the emergence of secondary ticketing means millions of pounds are lost to creators through use of the face value of tickets to calculate royalties from box

---

<sup>27</sup><http://www.hypebot.com/hypebot/2012/07/the-most-valuable-thing-you-dont-know-about-youtubes-business-model.html>

office receipts. Whilst streaming is akin to a radio broadcast, the actual royalty rates per song delivered differs. Applying a more logical set of relative royalty rates offers scope for increasing creator royalties.

(e) Seek opportunities to reduce costs: With royalties post-2005 declining in real terms, greater cost efficiencies are required to maximise distributions to creators. Societies are likely to look to merge front and back offices, and introduce central repertoire databases to increase the accuracy and speed of their matching of usage to their members' rights.

## 8. POSSIBLE HYPOTHESES FOR FUTURE RESEARCH

Implicitly and explicitly, this paper has raised a number of hypotheses that can form the basis for future economic research that is of value to the industry in providing evidence to the debate around strategies and policies:

- (1) Collecting societies are less valuable mechanisms in the New World:<sup>28</sup>
  - (a) Royalties have fallen in real terms;
  - (b) Participants in the music value chain are seeking to by-pass collecting societies: secondary ticketing is one example, fragmentation of online rights is another;
  - (c) They are unable to monetise the trillions of dollars of wealth created in new global centres of growth into meaningful increases in royalties for their members.
- (2) [Because of (1)] Creators of music will increasingly challenge the societies to which they belong and / or reduce their output of creative works.<sup>29</sup>
- (3) English language music faces greater barriers to acceptance in new centres of world growth than in old centres, and these barriers are greater than for physical products like cars.

---

<sup>28</sup>This hypothesis has been rejected, albeit for different reasons, by Girsberger et al. (2004).

<sup>29</sup>The debate around incentives to create is normally focused on copyright per se and not on the role of collecting societies in managing copyright effectively – see, for example, DiCola (2013).

- (4) Two-sided markets are negative developments for creators of music, replacing the much higher ceiling of consumer spending with the much low ceiling of online advertising spend.
- (5) Growing concentration of online advertising spend in Google will combine with the two-sided market effect to reduce creators' earnings (in terms of fractional royalties) from ad-supported music, if not in nominal terms then in real terms.
- (6) For collecting societies, the threats and weaknesses around Online are too great for it to ever completely replace the loss of peak royalties from physical products.
- (7) Record labels helped a culture of piracy in music to develop by not enabling legal download services to develop in the infancy of broadband.
- (8) Piracy requires a critical mass of broadband adoption to have a significantly detrimental effect on sales of music.
- (9) The relative contribution to the fall in value in sales of music made by changes in demand for music have been greater than that made by changes in the supply of music.
- (10) Broadband Internet has eliminated pricing power in sales of music.
- (11) The Internet has failed by generate 'trickle down' in creator earnings, with UK online music sales still driven by relatively few, key creators of music.
- (12) National account statistics will not capture the new sources of growth in music.

#### REFERENCES

- Anderton, C., A. Dubber and M. James (2013)**, *Understanding the Music Industries*, London, Sage Publications Limited.
- DiCola, P.C. (2013)**, "Money from Music: Survey Evidence on Musicians' Revenue and Lessons About Copyright Incentives", *Arizona Law Review*, 55; 1-70.
- Eisenmann, T. R., G. Parker and M.W. Van Alstyne (2006)**, "Strategies for Two Sided Markets", *Harvard Business Review*, 84(10); 92-101.



- Ford, G.S. (2014)**, “What is the Effect of File Sharing on the Creation of New Music? A Critical Review of ‘A Case Study of File Sharing and Music Output’”, Phoenix Centre Perspectives 14-02, available at <http://ssrn.com/abstract=2407145>
- Girsberger M., M. Burri and C. Graber (2004)**, “Collecting Societies – Not Yet Six Feet Under”. *INDICARE Monitor*, 1(4); 29-32.
- Handke, C. and R. Towse (2008)**, “Economics of Copyright Collecting Societies”, *International Review of Intellectual Property and Competition Law*, 38(8); 937-57.
- Hansen, G. and A. Bischoffshausen (2007)**, “Economic Functions of Collecting Societies – Collective Rights Management in the Light of Transaction Cost – and Information Economics”, Working paper, available at <http://ssrn.com/abstract=998328>
- Liebowitz, S.J. (2006)**, “Testing File-Sharing’s Impact by Examining Record Sales in Cities”, *Management Science*, 54(4); 852-59.
- Lunney, G.S. (2014)**, “Empirical Copyright: A Case Study of File Sharing and Music Output”, Tulane Public Law Research Paper No. 14-2, available at <http://ssrn.com/abstract=2372630>
- Ofcom (2005)**, “The Communications Market 2005”, available at <http://stakeholders.ofcom.org.uk/market-data-research/market-data/communications-market-reports/cm05/>
- Ofcom (2013)**, “Measuring Online Copyright Infringement”, available at [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/335357/ipresearch-ofcom.ppt](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/335357/ipresearch-ofcom.ppt)
- Ofcom (2014)**, “The Communications Market 2014”, available at <http://stakeholders.ofcom.org.uk/market-data-research/market-data/communications-market-reports/cm14/>
- Schumpeter, J.A. (1942)**, *Capitalism, Socialism and Democracy*, New York, Harper & Row.
- Solow, R.M. (1987)**, “We’d Better Watch Out”, *The New York Times*, 12 July, p. 36.
- U.K. Intellectual Property Office (2013)**, Guide to Evidence for Policy Update, available at <http://webarchive.nationalarchives.gov.uk/20140603093549/http://www.ipo.gov.uk/consult-2011-copyright-evidence.pdf>
- Waldfoegel, J. (2012)**, “Copyright Research in the Digital Age: Moving from Piracy to the Supply of New Products”, *American Economic Review*, 102(3); 337-42.
- Weatherley, M. (2014)**, “Search Engines and Piracy – A Discussion Paper”, available at [http://www.olswang.com/media/48165108/search\\_engines\\_and\\_piracy\\_mike\\_weatherley\\_mp.pdf](http://www.olswang.com/media/48165108/search_engines_and_piracy_mike_weatherley_mp.pdf)