Winds of Change

Maurice C Samuel

Abstract

Digitisation and increasingly fast broadband Internet represent the two fundamental 'winds of change' that have transformed the UK music industry since the 1980s. Together with the other changes, or winds, they created, they have led to four different phases of 'creative destruction' in music, each with different characteristics. The winds and the characteristics of the phases they have created have had the joint effects of, first, widening market boundaries; second, making those boundaries more permeable; and, third, reducing the measured value attributable to music within those wider and more permeable market boundaries. This paper seeks to offer a coherent narrative of the phases of creative destruction underpinning these effects. The narrative is intended to inform comparisons between the present and the past, and to provide a more solid foundation for thinking about the future, including strategic and policy initiatives. The paper concludes by identifying the 'Pentagon of Big Questions' for future music industry research, relating to: the framework within which the process of creative destruction takes place, the value of music, the shape of the music industry that value supports, the impact of declining value on supply, and the impact of falling supply on the wider economy.

Background, Scope and Objectives

The genesis of this paper is a question I was asked to address in 2013: Is UK music in ‘crisis’? However, as long ago as 1942, Joseph Schumpeter wrote that:

“Capitalism, then, is by nature a form or method of economic change and not only never is but never can be stationary... The process of Creative Destruction is the essential fact about capitalism.”

In other words, changes, or destruction and replacement of products and markets by alternatives, are an essential feature of competitive markets. Over the past 40-odd years, the twin forces of digitisation and increasingly fast broadband Internet have reshaped the UK music industry, particularly its sales of recorded music. They are the fundamental 'winds of change'.

‘Winds of Change’ is a research paper aimed at researchers, strategists, policy-makers and music industry analysts, and has a unique objective. This is to offer a coherent and robust narrative of the process of creative destruction in UK music sales over the past 40-odd years. It is designed to offer readers a broader, and therefore more balanced, perspective of the UK music industry today, and therefore a more informed position from which to consider its

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1 The views expressed in this paper are solely mine. I am grateful to Scott Walker, Tim Arber, Nicholas Brookes, Tom Weller and Gill Corish of PRS for Music, and Professors Ruth Towse and Christian Handke for their helpful comments and feedback on earlier drafts. I own any errors or mistakes in the paper.

2 Capitalism, Socialism and Democracy (1942)
future shape and contribution. It is hoped that its unique objective enables the paper to become a key reference source.

‘Winds of Change’ does not offer any new data. Instead, it:

- brings existing data and information together in a new conceptual framework; and
- synthesizes different data and information to provide new insights into the changes.

The paper is 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.

To make the narrative manageable, the analysis is written from the perspective of writers and composers of music – in the UK normally represented by the PRS for Music collecting society. From an economic perspective, the founding rationale for this society was (and continues to be) efficiency. This has been described by Handke and Towse, in Economics of Copyright Collecting Societies (2007)\(^5\). Collecting societies are “an efficient way of overcoming the problem of high transaction costs for administering copyright...the transaction costs that accrue just for the purpose of finding potential trading partners and to negotiate the terms of trade can be very high...Transaction costs are particularly problematic where copyrighted works have a relatively small value to many users. Such a constellation requires many transactions and sometimes transaction costs might even exceed the market price for a licence to use a copyright work. No market will develop and both rights holders and potential users will lose”.

Figure 1 shows that PRS for Music has grown its royalties from £360m in 1998 to £666m in 2013\(^6\).

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\(^6\) These figures include both performing and mechanical royalties
The most significant changes in PRS for Music royalties have been the decline in those from Recorded Media – from a peak value of £170m in 2005 to £81m in 2013 (Table 1), and a peak share (over the period) of 37% in 1998 to 12% in 2013 (Table 2). The big growth area for PRS for Music has been 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.

### Table 1: Breakdown of PRS for Music royalties (£m)

<table>
<thead>
<tr>
<th>Year</th>
<th>Recorded Media Audio Products &amp; Other</th>
<th>Online</th>
<th>Broadcast</th>
<th>International</th>
<th>Public Performance</th>
<th>Live</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>£1132</td>
<td>£139</td>
<td>£144</td>
<td>£148</td>
<td>£197</td>
<td>£158</td>
</tr>
<tr>
<td>1999</td>
<td>£1129</td>
<td>£102</td>
<td>£105</td>
<td>£111</td>
<td>£111</td>
<td>£113</td>
</tr>
<tr>
<td>2000</td>
<td>£1012</td>
<td>£97</td>
<td>£102</td>
<td>£105</td>
<td>£111</td>
<td>£111</td>
</tr>
<tr>
<td>2001</td>
<td>£97</td>
<td>£7</td>
<td>£5</td>
<td>£0</td>
<td>£11</td>
<td>£13</td>
</tr>
<tr>
<td>2002</td>
<td>£134</td>
<td>£405</td>
<td>£427</td>
<td>£443</td>
<td>£464</td>
<td>£483</td>
</tr>
</tbody>
</table>

Source: PRS for Music

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Recorded Media Audio Products &amp; Other</th>
<th>Online</th>
<th>Broadcast</th>
<th>International</th>
<th>Public Performance</th>
<th>Live</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>37%</td>
<td>36%</td>
<td>35%</td>
<td>34%</td>
<td>33%</td>
<td>32%</td>
</tr>
<tr>
<td>1999</td>
<td>38%</td>
<td>36%</td>
<td>35%</td>
<td>34%</td>
<td>33%</td>
<td>32%</td>
</tr>
<tr>
<td>2000</td>
<td>36%</td>
<td>35%</td>
<td>34%</td>
<td>33%</td>
<td>32%</td>
<td>31%</td>
</tr>
<tr>
<td>2001</td>
<td>27%</td>
<td>26%</td>
<td>26%</td>
<td>25%</td>
<td>24%</td>
<td>23%</td>
</tr>
<tr>
<td>2002</td>
<td>17%</td>
<td>17%</td>
<td>18%</td>
<td>19%</td>
<td>20%</td>
<td>19%</td>
</tr>
<tr>
<td>2003</td>
<td>19%</td>
<td>20%</td>
<td>21%</td>
<td>21%</td>
<td>22%</td>
<td>23%</td>
</tr>
<tr>
<td>2004</td>
<td>19%</td>
<td>20%</td>
<td>21%</td>
<td>21%</td>
<td>22%</td>
<td>23%</td>
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<tr>
<td>2005</td>
<td>19%</td>
<td>20%</td>
<td>21%</td>
<td>21%</td>
<td>22%</td>
<td>23%</td>
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<tr>
<td>2006</td>
<td>19%</td>
<td>20%</td>
<td>21%</td>
<td>21%</td>
<td>22%</td>
<td>23%</td>
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<tr>
<td>2007</td>
<td>19%</td>
<td>20%</td>
<td>21%</td>
<td>21%</td>
<td>22%</td>
<td>23%</td>
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<tr>
<td>2008</td>
<td>19%</td>
<td>20%</td>
<td>21%</td>
<td>21%</td>
<td>22%</td>
<td>23%</td>
</tr>
<tr>
<td>2009</td>
<td>19%</td>
<td>20%</td>
<td>21%</td>
<td>21%</td>
<td>22%</td>
<td>23%</td>
</tr>
<tr>
<td>2010</td>
<td>19%</td>
<td>20%</td>
<td>21%</td>
<td>21%</td>
<td>22%</td>
<td>23%</td>
</tr>
<tr>
<td>2011</td>
<td>19%</td>
<td>20%</td>
<td>21%</td>
<td>21%</td>
<td>22%</td>
<td>23%</td>
</tr>
<tr>
<td>2012</td>
<td>19%</td>
<td>20%</td>
<td>21%</td>
<td>21%</td>
<td>22%</td>
<td>23%</td>
</tr>
<tr>
<td>2013</td>
<td>19%</td>
<td>20%</td>
<td>21%</td>
<td>21%</td>
<td>22%</td>
<td>23%</td>
</tr>
</tbody>
</table>

Source: PRS for Music

### Crisis in Music?

From the point of view of PRS for Music, the shorthand measure of performance - an increase in royalties from £360m to £666m - is not indicative of a crisis in music. Before inflation, composers and writers of music are earning more from music today than ever before. In the broader music industry, which PRS for Music has attempted to measure annually since 2007 in its ‘Adding Up’ report, overall net revenues\(^7\) for music have increased from £3.5bn in 2007 to £3.8bn in 2011.

But this approach, of using a single metric as a barometer of the health of the music business, is far too simple. The rest of this paper looks at all the changes and challenges, the ‘winds of change’, that this shorthand measure of performance hides, to try to offer a richer, more rounded, and insightful analysis of the UK music industry today.

### Sales of Music

Figure 2 is arguably the most important chart in understanding what is happening in the UK music industry today.

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\(^7\) Gross revenues adjusted for flows between various participants within the music industry so as to avoid double-counting.
Its historical context – its shape - reveals a surge in sales revenue, largely due to sales of albums – first vinyl LPs, then cassettes, but especially CDs. CDs are the format most closely related to peak music sales (Figure 3).

Figure 3: Peak Sales of Different Music Formats

Source: BPI
Figure 4 shows part of this surge in value was attributable to improved terms of trade, or increased prices for CDs; but most of it to increased volumes of CDs. This was due to at least two factors. First, as reported in the BBC4 documentary *When Albums Ruled the World*\(^8\), by making great music only available in album format, albums sold as though they were singles. Second, spending by music buyers was much higher – in 2000 just albums (the vast majority of value, according to Figure 2) attracted average spend per music buyer of £78.99\(^9\), equivalent to around £113 at 2013 prices, compared to all formats of music attracting an average spend by buyers of £41.04\(^10\) in 2012.

![Figure 4: CD Sales: Contribution of Prices and Volumes](source)

**Figure 4: CD Sales: Contribution of Prices and Volumes**

Figure 2 reveals that, by 2012, CDs still accounted for over half the value of music sales. Figure 5 shows the extent to which the demographic underpinning of CD sales has changed since 2000. Up to 2006, the majority of CD sales were attributable to the under-40s; since that date, over-40s have accounted for the majority of such sales. In other words, without the continued spending of the over-40s on CDs, the condition of UK music sales today would be materially worse.

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\(^8\) *When Albums Ruled the World, BBC 4, February 2013*

\(^9\) *BPI Yearbook 2000, p67*

\(^10\) *BPI Yearbook 2013, p77*
Figure 2 shows that, historically, nominal sales of music to consumers today are still higher than they were until the 1990s. So one could argue that the perceived ‘crisis’ in music is based on a comparison of 2012 with the peak, not with a comparison of 2012 with the pre-1990s, when sales were much lower. However, this would be misleading: after taking account of inflation, sales of music were lower in 2012 than 40 years earlier in 1972 (Figure 6) – and, compared to 2007, the overall music industry was worth £3.3bn in real terms in 2011 rather than the £3.8bn reported.

Figure 6: Real Music Sales

Source: BPI, ONS

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11 See Adding Up 2012
Figure 7 shows the association between broadband connections and PRS for Music royalties in real terms, using different base year periods. Below 10m connections, royalties continued to rise in real terms. Since this level was reached in 2005, overall royalties have been declining in real terms, with the exception of the period 2012-2013. One interpretation of this pattern is that broadband has created increased scope for piracy, reducing the growth of royalties from legal online music services, and thus their ability to offset the decline in royalties from CDs (see Tables 1&2), making overall real reductions in royalties more likely.

**Figure 7: PRS for Music Royalties in Real Terms**

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**Four Phases of Music**

The nine different formats can be grouped to identify 4 distinct phases in sales of music:

1. **Phase I** (up to 1983): Physical Analogue - cassettes, LPs, singles, 8 track
3. **Phase III** (2003-2006): Online Downloads - downloads from the Internet
4. **Phase IV** (2007 -): Online Streaming - streaming from the Internet
The Characteristics of the Four Phases

To understand the UK music industry today, it is essential that we not only recognise these distinct phases, but also identify their different characteristics. These are set out in Table 3:

### Table 3: The Four Phases of Music and their Characteristics

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Embodiment of music</td>
<td>Physical</td>
<td>Digital</td>
<td>Download</td>
<td>Streaming</td>
</tr>
<tr>
<td>2 Delivery of music</td>
<td>Analogue</td>
<td>Digital</td>
<td>Download</td>
<td>Streaming</td>
</tr>
<tr>
<td>3 Piracy</td>
<td>No Internet. Piracy</td>
<td>Dial-up Internet.</td>
<td>Emergence of broadband. Increasing speeds facilitate illegal distribution of music content, reducing its scarcity value</td>
<td></td>
</tr>
<tr>
<td></td>
<td>limited by capacity to replicate physically</td>
<td>Piracy limited by low speeds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Pricing power</td>
<td>Nominal prices rise faster than inflation, increasing creators' real incomes</td>
<td>Nominal prices rise more slowly than inflation, reducing creators' real incomes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Model of creation &amp; distribution</td>
<td>Physical creation &amp; distribution (higher costs)</td>
<td>Online creation &amp; distribution (lower costs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Bundling</td>
<td>Bundling and free-riding</td>
<td>Unbundling; no free riding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Licensee</td>
<td>Pure distributors (generally)</td>
<td>Growing economic power of digital service providers. Increasing vertical integration, from music content online, to producing software to control that content and hardware devices to access that content.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Type of royalty</td>
<td>All (mechanical) royalties to publishers</td>
<td>Royalties split (mechanical &amp; performing). Desire by music publishers to independently negotiate deals directly rather than relying on collecting societies ('Fragmentation of rights')</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Ownership &amp; basis of royalty payment</td>
<td>Freehold</td>
<td>Leasehold</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fixed % royalty on sale; capped</td>
<td>Fractional royalty, on usage; uncapped</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Market</td>
<td>One-sided markets</td>
<td>Two-sided markets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Measurement</td>
<td>One-sided markets / physical embodiment facilitate measurement of contribution of music</td>
<td>Greater challenge to measuring the contribution of music in the national accounts</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Phases I & II**

- **Fundamental winds**
  - Digitisation (Phase I)
  - Adoption of fast broadband Internet (Phase II)

The analogue media of vinyl LPs and singles and cassette tapes of Phase I was creatively destroyed by digitisation in Phase II, in particular by the CD, through demand-side substitution. In this physical phase, PRS for Music (MCPS) licensed a wide array of record companies to produce physical copies of music, the royalties from sales of which were distributed solely to music publishers.

Media like LPs and CDs 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 (Figure 8).
These media also represented ‘bundles’ of songs, and therefore bundles of compositions by members of PRS for Music – creators of music. The royalties from sales of these bundles were essentially paid to creators on sale, as a fixed percentage of the price. With no Internet, or in the late 1990s only dial-up Internet, piracy had no easy distribution channel and was therefore not a major issue. With supply controlled – no 'permeability' in the expanded market boundary - prices could be increased (see Figure 4), contributing to increased incomes for creators of music. For PRS for Music, and the rest of the UK music industry, the physical phase, dominated by LPs, especially in the form of digital CDs that expanded the market boundaries, was one of comparative stability and prosperity and marked, for the time being, the high water mark of sales of music to consumers.

With digitisation already in place, broadband adoption (secondary axis of Figure 2), starting around the turn of the new millennium, completed the twin axis, and these fundamental ‘winds of change’ ushered in seismic changes in sales of music – not only by further changing market boundaries, but by making those new boundaries unsecure or ‘permeable’, and permeability has had implications for the recorded value of music sales. The two fundamental winds have provided the evolutionary path between Phase II and Phases III and IV.

Fourteen years on, there are now 22 million fixed broadband connections in the UK – around 80% of households - of increasingly of higher speeds (based on fibre rather than copper), enabling music to be not just downloaded but streamed. As well, some 60% of mobile phones today are smart phones, running on 3G and, now, much faster 4G.
Phase III

Winds created

- Emergence of digital service providers
- Fragmentation of rights
- Unbundling of music
- Piracy
- Disappearance of retail pricing power & specialist high street music stores

PRS for Music started to license digital service providers (DSPs), initially for downloads and subsequently, in Phase IV (2007-), for streaming. Today, PRS licences over 70 digital services in the UK. Table 7 shows the entry of major DSPs by year.

Table 3: Key Digital Service Providers

<table>
<thead>
<tr>
<th>Year</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>iTunes</td>
</tr>
<tr>
<td>2005</td>
<td>YouTube</td>
</tr>
<tr>
<td>2006</td>
<td>Napster/Rhapsody</td>
</tr>
<tr>
<td>2007</td>
<td>YouTube</td>
</tr>
<tr>
<td>2008</td>
<td>iTunes</td>
</tr>
<tr>
<td>2009</td>
<td>Amazon</td>
</tr>
<tr>
<td>2010</td>
<td>Microsoft</td>
</tr>
<tr>
<td>2011</td>
<td>Google</td>
</tr>
<tr>
<td>2012</td>
<td>Nokia</td>
</tr>
</tbody>
</table>

Source: PRS for Music

In Phase III, creators of music started receiving performing royalties for online use of their works directly from PRS for Music. With fast broadband Internet creating new opportunities by reducing transactions costs, PRS for Music started to experience new entry (and thus a broadening in its market boundaries) in licensing in the form of **fragmentation of rights** for some online exploitations: some publishers decided to withdraw their rights and license them directly to DSPs, sometimes through special purpose vehicles, like CELAS, PAECOL, and PEDL. Publishers did so because they believed they could obtain greater value for their repertoire by negotiating directly rather than by leaving their repertoire in the ‘traditional ‘blanket’ licenses offered by PRS for Music. The loss of mechanical and performing rights in this way, and therefore the associated royalties, has reduced the reported income of PRS for Music. In other words, the ‘crisis’ in music debate fails to recognise that, despite the shorthand measure of performance showing royalties increasing from £360m in 1998 to £666m in 2013, PRS for Music is increasingly facing competition for repertoire not only from other collecting societies around the world but also from its own music publishing members. This broadening of its market boundaries through new entry by publishers and other collecting societies has increased the intensity of competition in licensing music.

Another fundamental change in Phase III was **unbundling** of music. Whereas in Phases 1 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 has eliminated the ‘free riding’ present

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12 Mechanical rights first, then matching performing rights
13 See the MIDEM 2014 discussion on Digital Rights and Cross Border Issues http://www.youtube.com/watch?v=764pl8---2ew
in bundling, 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 benefitted consumers, who now pay only for what they actually want, has helped drive down value (Figure 2), and has resulted in lower royalties to some creators.

The impact of unbundling on incomes of some creators was reinforced by the emergence of the ‘long tail’ in online music sales (Figure 9): relatively few tracks (eg 10%) account for the vast majority (eg 90%) of the overall sales value. In other words, UK music sales are primarily driven by relatively few of the 100,000 members of PRS for Music.

Figure 9: A Long Tail in Online Music Sales

Increasing adoption of broadband and mobile, with ever-higher data speeds, created permeability in the expanding boundaries of the music market, and made piracy of digital content an enormous problem – for creators of music one that added to the challenge of the emergence of the long tail in online sales. For music, the relatively smaller file sizes compared with those for film, software, TV, and video games on the one hand and limited capacity of dial-up Internet and early broadband on the other has historically put it at the forefront of piracy problem. According to recent research by Ofcom14, relatively few Internet users (2%) account for the majority (74%) of pirated digital content, including music.

14 Measuring Online Copyright Infringement, September 2013
The same research found almost a quarter of digital content was accessed illegally:

Figure 11: Extent of Piracy of Digital Content

Infringement is a minority activity, but nearly a quarter of digital content files were accessed illegally …

Piracy has been viewed as a threat not simply to the flow of royalties to creators of music but also 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 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”\textsuperscript{15}.

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, which expanded its market boundaries. Figure 11 indicates that increasing broadband adoption (and higher speeds) has been associated with a clear \textbf{decline in CD prices}. In real terms, the average price of CDs is down over £3, or 40%, since the introduction of broadband (Figure 12). 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. What is clear however is that with royalties paid on CDs related to price, the price decline has adversely affected creators’ incomes – contributing to the decline in recorded media royalties shown in Figure 1 and Table 1.

[Figure 12: Broadband and Average CD Prices]

Source: Official Charts Company, Ofcom

Declining CD volumes on the back of greater adoption of broadband (Figure 4), and greater competition from supermarkets, have resulted in the number of specialist music outlets more than halving since 2000 (Figure 8), and was one of the contributory factors in the ‘structural decline’ that helped push HMV into administration in January 2013\textsuperscript{16}.

\textsuperscript{15} Paragraph 23, p 12; “Downloading” Decision (512Kb) CT84-90/05 - issued July 2007

\textsuperscript{16} http://www.investegate.co.uk/hmv--group--plc-----hmv--/rns/interim--results/201212130700134382T/
Phase IV

- Much faster broadband speeds (fixed and mobile)
- Miniaturisation of computing power
- Rise of mobile computing (eg tablets, smartphones)
- Software music apps emerge
- Emergence of streaming & fractional royalties
- Continued decline in consumer spending on music
- Increased power of DSPs in online advertising and licensing
- Increased operational complexity for collecting societies
- Emergence of two-sided markets

Figure 13 shows that Phase IV has seen a marked step up in broadband speeds, as increasing numbers of UK households adopt fibre. Average actual speeds have increased from just 0.5Mbits/s in 2000\(^{17}\), to almost 15Mbits/s in 2013\(^{18}\), with most of the increase occurring since 2009. Ofcom reported over 82m 2G/3G mobile handsets in the UK in 2013\(^{19}\). The miniaturization of computing power has dramatically transformed this base, with Ofcom describing the surge in smartphone adoption and use as a nation ‘addicted to smartphones’\(^{20}\). Penetration of tablets is also increasing. The emergence of software music apps is a further wind – enabling demand-side substitution that disintermediates high street outlets.

![Figure 13: Some Phase IV Winds](image-url)

Source: Ofcom

With speeds now high enough to eliminate buffering, these winds have broadened the market boundaries even further, by enabling the new entry of music streaming services, on both fixed and mobile devices, often as downloaded software apps. 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.

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 four reasons.

I. Many streaming music services have developed as two-sided markets\(^\text{17}\) – with the substitution of consumer spending by a subsidy from advertising enabling the supply of ‘free’ content.

II. In the two-sided market, music has less intrinsic value to one side (advertisers). Streaming has resulted in creators of music receiving a fractional royalty per song streamed – which varies depending on whether the DSP model is ad-funded (two-sided) or subscription funded (one-sided).

III. With no ownership of streaming music, consumers place a lower value on streaming subscriptions than on purchases of CDs.

IV. Streaming has resulted in music listening becoming a less immersive experience

These four factors have implied a deterioration in the terms of trade for content owners. In Phases I, II and III 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 then £5bn\(^\text{21}\) in 2012. In other words, Online advertising spend is 1/200\(^\text{th}\) 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. Consequently, per stream rates are relatively lower for ad-supported streaming music services than for other types of music service - from 1/100\(^\text{th}\) or less compared to the larger circa 5p one-off upfront payment per track from downloads or CDs. 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.

The substitution of consumer spending on music by advertising spend is also significant in that the value of music itself changes. As an illustration, a report by the BBC “Why have vinyl records become so popular in Germany?”\(^\text{18}\) 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


\(^{18}\) 16 December 2013
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.”

For consumers, music has shifted from this immersive experience to, in an age of media multitasking via multiple Internet-connected devices (see Ofcom’s Communications Market Report 2013), a more marginal one, and now one that is provided ‘free’ via advertising. The demand curve for music has shifted to the left, and real per capita spending in the UK on recorded music since 1997 has fallen 60%, from £18.17 to £7.50 in 2012 (Figure 14). Of this decline of £10.67:

1. £5.55 (£18.17−£12.62, or 52%) was attributable to a fall in per capita spending in nominal terms;
2. £1.06 (£12.62−£11.56, or 10%) was attributable to the increase in population from 58.3m to 63.7m;
3. £4.06 (£11.56−£7.50, or 38%) was attributable to the impact of inflation.

In other words, the key driver of the decline in spend on music is a reduction in consumer spending per head, as lifestyles change and music has to increasingly compete for both the wallet share and time share of consumers.

Figure 14: Per Capita UK Spend on Recorded Music

A further factor driving value down is that, today for advertisers, the value of music in the two-sided online market is not in the music per se, but in the number and demographic profile of the people attracted to music streaming websites, and their likelihood of clicking on links to advertisers, and buying their products and services.

At the same time as online advertising has become more important to music, such advertising has become dominated, at a global level, by a few large digital properties (Figure
leaving relatively little ad revenue to support a very large number of ad-supported websites of all types, including music. The ‘free float’ of online advertising spend – that not accounted for by the large digital properties – has contracted, effectively shifting the supply curve of ‘free float’ advertising spend to the left. It is likely that many online music streaming services are loss-making partly because of this growing concentration of online advertising.

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 (as highlighted by UK Music’s The Economic Contribution of the Core UK Music Industry19).

Three examples illustrate the issue.

First, PRS for Music research20 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

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the computer age everywhere but in the productivity statistics.”21 Today, despite the growing use of music in the economy by consumers and, directly and indirectly, by businesses, its overall net revenues (as reported, for example, in *Adding Up*) 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.”

Phase IV has seen some DSPs become increasingly vertically integrated, often through acquisitions, so that today they are involved in the production of software (eg iOS, Android), production of hardware (eg iPhones, iPads, Motorola) that uses that software, and the online digital service (iTunes, YouTube). For members of PRS for Music, the route to the consumer market for their works is increasingly through these vertically-integrated suppliers which have, partly as a consequence, become extremely powerful economically.

This is illustrated in Table 5. In 2004, Google and Apple had a combined market capitalisation that, if equivalent to GDP22, would have made them the 59th largest country in the world. Through circa 150 odd acquisitions (to September 2013) since that date of companies like YouTube and Motorola they have grown from a combined market capitalisation of $55bn in 2004 to $750bn in 201323. This is a level of value exceeded by only 19 countries in terms of GDP, it is equivalent to 1% of world GDP, 5% of US GDP, and over 30% of UK GDP. This level of economic power among licensees was simply never present in the physical phase. It represents a very considerable challenge for PRS for Music and other collecting societies in their efforts to maximise the value of the repertoire of their members.

<table>
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<th>Table 5: Shifting Economic Power</th>
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<td><strong>Number of countries with GDP greater than Google and Apple combined market cap</strong></td>
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Source: IMF forecasts, Google Finance

The relevance of this growing economic power is its exercise in online licensing.

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22 The World Bank also compares market capitalisation to GDP (see [http://data.worldbank.org/indicator/CM.MKT.LCAP.GD.ZS](http://data.worldbank.org/indicator/CM.MKT.LCAP.GD.ZS))
23 As at 22 May 2014, their combined market cap was $888bn.
For collecting societies, Phase IV has been significantly impacted by the consequences of the 2005 Recommendation by the European Commission to improve cross-border licensing of music to digital service providers (DSPs). Option 3 was favoured the choice, both because it offered rights holders choice in terms of which society to join, and would create competition between collecting societies, leading to the improvement in the services they provide. However, in practice and by Phase IV, the Recommendation had unintended consequences.

First, to be able to offer music based on all repertoires, DSPs still in practice had to go to multiple collecting societies in multiple territories for licences.

Second, each file from each DSP, consisting initially of not more than tens of millions of usages, expanded with greater broadband speeds, e-commerce and streaming - to billions of usages. What had not been foreseen in 2005 was that, in a world of fragmented rights, each collecting society would have to process each of these files from each DSP – duplicating the work of other societies - to identify repertoire it was responsible for so that it could charge its licensees accurately. With 28 member countries, each with its own collecting society duplicating the work of every other society, Option 3 has created costs within the entire collecting society system, reducing their members’ net earnings.

Adding to the processing challenge for PRS for Music was that, on the back of higher broadband speeds, broadcasters like BBC and Channel 4 developed on-demand and catch-up TV services (like iPlayer and 4oD), many programmes on which use PRS repertoire. The General Entertainment On Demand (GEOD) volumes of music uses in these programmes, combined with those of DSPs, has led to soaring processing volumes for PRS. Figure 16 shows that volumes have risen from 1.2bn usages in 2009, to 125bn in 2012.

![Figure 16: PRS for Music Processing Volumes](source: PRS for Music)

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24 Recommendation of the European Commission on collective cross-border management of copyright and related rights for legitimate online music services, 30 September 2005
Phase V

- Future framework for creative destruction
- Future value of music
- Future shape of the UK music industry
- Long term creation of new music
- Impact on the UK of contraction in supply of new music

The fundamental winds of digitisation and faster broadband Internet will continue and, together with additional winds like piracy, increased spending on music from brands and advertisers, and powerful digital services providers help define the canvass of Phase V. The process of creative destruction that has been at the heart of the evolution of music sales over the past 40 years has had an implicit framework that has underpinned economic exchange, a key element of which has been copyright.

**Figure 17: The Pentagon of Big Questions for Future Music Research**

Big Question 1: How and why will the framework underpinning creative destruction in music change, and who will benefit?

At the moment, as highlighted by UK Music research, music makes a significant contribution to the UK economy. But what are the threats to this in the long term? One obvious danger is piracy. Another is allowing the bargaining power of powerful DSPs to shape the process of creative destruction to their advantage, whether by buying innovations before they destroy their businesses, or by changing to their advantage either the legal framework governing exchange of creative content (copyright) and / or the terms of exchange (licensing) with
other economic agents in the music value chain, creating additional costs and fewer revenues for these other agents. In the long term, this is likely to start leading to a contraction in investment in music creation, music output, and a decline in the ability of the music sector to contribute to the success story of UK creative industries.

**Big Question 2: Is the decline in the value of music reversible and, if so, how?**

Figure 18 shows some of the approaches that are being adopted to increase value. Fast broadband Internet is a technology of creative destruction, and the Midem music conference in February 2014 highlighted a number of innovative business models that may contribute towards reversing the decline in music - for example through enabling more effective music discovery, and overcoming fragmentation of the online music services (databases, media, social networks, and webstores and marketplaces). With the right creative destruction (making music more attractive than alternatives), spending by consumers on music could start to recover, albeit not spending in the traditional sense that we know it now, on plain downloads or straightforward streaming. Without future creative destruction creating new sources of value to reverse the overall decline, it may be necessary to consider extracting value for creators from other parts of the value chain – for example, from access charges to the Internet. Another potential source of value is growth in developing countries, like China and India, but the big challenge is monetising their growth.

![Figure 18: Some Options for Increasing Value from Music](image)

An intriguing possibility for increasing value is through improving the functioning of the market for 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

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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.”

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. For example, the chart below shows that "after 20 days, a YouTube video has had 75% of its total views.... What’s this mean for publishers? For one thing, publishers should have advertising/monetization schemes ready to go for their videos right when they're published, because the hits come early.”

Big Question 3: What shape of the music industry will its future value support?

Creative destruction through innovation based on digitisation and faster broadband will create new platforms that disintermediate and reformulate existing parts of the music value chain, to create more competitive alternatives. If the decline in value continues, it can be expected to result in lower profits / consolidation of supply. Over time, creative destruction is likely to create a new set of powerful DSPs. However, this process may be slowed by the ability of existing DSPs to use high share prices to buy innovations before they destroy their businesses.

Big Question 4: Will a continued decline in the value of music, and earnings of creators, reduce the creation of music in the long term?

Fast Internet is only fourteen or so years old, much younger than the vast majority of existing music creators. Directly, through increasing availability of illegal copies, and indirectly through the growth of powerful technology companies with greater bargaining power, the short-term impact of digitisation and fast broadband Internet has been to create strong headwinds against the growth of existing creators’ earnings. The great uncertainty is around the long-term impact on music creation, over the next 50 or more years, when there will be an entirely new group of music creators.

Big Question 5: What will be the impact of such a reduction in the creation of music on the contribution of the sector to the UK economy and to wider society?

At the moment, as highlighted by UK Music research\(^30\), music makes a significant contribution to the UK economy. However, in the long term, falling earnings for creators of music will likely reduce the attractiveness of investing in music, causing a contraction in supply and a decline in the ability of the music sector to contribute to the success story of UK creative industries.

**Final Remarks**

From an economic perspective, over the past 40-odd years the Schumpeterian process of creative destruction has seen the markets for music have become broader, initially creating great wealth partly through improved terms of trade on CDs, but subsequently these boundaries have become more permeable through piracy and weakening copyright. With other factors, like the emergence of two-sided markets, the terms of trade have shifted, creating more consumer surplus, and strong headwinds to growth. This paper suggests five key areas for future economic research of music, dealing with the impact of these headwinds or solutions to them. By focusing research in these areas, economics can really make itself more relevant to the music business, and to the big and bold business and political decisions required to ever make the winds of change for music more favourable again.