

PLAIN DESTRUCTION OR CREATIVE DESTRUCTION? COPYRIGHT EROSION AND THE EVOLUTION OF THE RECORD INDUSTRY

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ABSTRACT. The record industry has become emblematic in debates on reforming copyright law. Economists have mainly studied the extent to which a surge in unauthorised copying is destroying the industry by displacing demand for authorised copies. The effect of technological change on industry structure has received little attention. This paper presents evidence for an extraordinarily high number of market entries by small record companies during a severe recession in the German market for phonograms. This finding is more consistent with a restructuring of the record industry in the context of technological change – i.e. creative destruction – than with plain destruction due to diminished appropriability. If that is the case, isolated attempts to reinforce copyright protection could be misguided. They should be complemented by efforts to promote innovation within the record industry.

1. INTRODUCTION

Copyright law is currently in a process of significant reform in many major economies. The record industry has become emblematic in related debates for two roughly simultaneous events. First, early on the swift diffusion of new copying technologies – file-sharing networks and CD-burners – brought a surge in unauthorised copying of sound recordings. Second, in most major markets, sales for authorised copies of recordings have fallen substantially. Many warn that a continued erosion of the copyright regime would come to wreak havoc on markets for information goods and services more generally. Two approaches to studying these recent developments in the record industry are distinguished in this paper – *plain destruction* and *creative destruction*.¹

Economists have produced a range of empirical contributions that address the question of ‘plain destruction’: to what extent does a surge in unauthorised copying harm the record industry by displacing demand for authorised copies? (For surveys of the literature see Peitz and Waelbroek (2003) and Liebowitz (2005a).) These studies focus on the effect of unauthorised copying on suppliers at large. Hereby, they employ abstract notions of both the record industry as well as technological change within it.

This abstract approach contrasts with a longstanding interest in broader changes within the record industry, beyond the diffusion of advanced copying technology

¹The cue for this comes from the title of a study on the effects of file-sharing on demand for authorised copies of recordings by Stan Liebowitz (2006): “File-Sharing: Creative Destruction or Just Plain Destruction?” and a study by Levinsohn and Petropoulos (2001): “Creative Destruction or Just Plain Destruction?: The U.S. Textile and Apparel Industries since 1972”.

and its immediate consequences. For over a decade, pervasive and largely welcome changes within the record industry have been predicted when online distribution comes to supplement brick-and-mortar business models (Goldstein, 1994; Alexander, 1994; Burnett, 1996). One common aspect of these predictions was that technological change would lead to substantial cost reductions, have asymmetric effects on different kinds of suppliers, and stir competition. The label ‘*creative destruction*’ (Schumpeter, 1942) can be applied to these predicted changes within the industry.

This paper makes two claims. First, for a normative evaluation of unauthorised copying it might make a difference whether it is studied in the relatively abstract terms of plain destruction or whether it is addressed in the broader terms of creative destruction. Second, nearly eight years after file-sharing broke onto the scene, there is some empirical evidence of significant changes within the German industry that go well beyond plain destruction. The main conclusion is that greater attention to these changes could make an important contribution to the current debate on copyright.

2. PLAIN DESTRUCTION, CREATIVE DESTRUCTION AND COPYRIGHT

Studies of plain destruction in the record industry aim to specify the short run impact of file-sharing on the industry at large. As a rule, they pay limited attention to wider technological change, modifications of the industry structure or issues of competition.

By contrast, industrial change and wider technological change (beyond the diffusion of advanced copying technology) feature prominently in much of the literature on the record industry. Such broader approaches are referred to as studies of creative destruction in this paper. While there are clearly more or less ambitious versions, a unifying feature is the view that the pervasive use of information and communication technology will continue to bring substantial cost reductions in copyright industries (Varian, 2005; Liebowitz and Watt, 2006). Many record industry analysts have further emphasised the view that innovation and technological change may have asymmetric effects on different kinds of suppliers (e.g. Alexander, 2002; Coles et al., 2004; on creative industries more generally Caves 2000, p.174 and pp.201ff.). This reflects many accounts of the history of the record industry, which find that the industry has gone through several periods during which radical technological change eroded some of the advantages of larger enterprises and lowered barriers to entry, which stirred competition, gave the incentive to further innovation and even saw changes in the organisations that enjoyed industry leadership (see Peterson and Berger, 1975; Chapple and Garofalo, 1977; Murph, 1984; Caves, 2000; Tschmuck, 2003). Today, the record industry is highly concentrated in four major multinational firms that control around three quarters of the world market (IFPI, 2004) and wield considerable market power according to most accounts (see e.g. Burnett, 1996; Silva and Ramello, 2000). In spite of their specialised expertise and substantial means, incumbent firms seem to have missed any opportunity to drive the development of online distribution before industry outsiders established enormously popular versions of the long-anticipated ‘celestial jukebox’ (Goldstein, 1994; Burnett, 1996) in the guise of file-sharing networks such as Napster (Aldermann, 2001).

At its most ambitious, a combined emphasis on wider technological change, industry structure and competition has led to suggestions that the record industry

is going through a period of radical technological change at this point in time (e.g. Alexander, 1994; Tschmuck, 2003). This would imply an intense process of creative destruction within a relatively short time-frame. Existing business models would be supplemented by new and more productive ones. Organisations with a greater capacity to drive or adapt to such changes would outcompete more conservative market participants.

There are several ways of pinpointing the divergence between archetypal studies of plain destruction in the record industry and broader approaches of creative destruction. One is that studies of creative destruction refute the implicit assumption in much of the debate on plain destruction that the record industry was in a state of competitive, static equilibrium before it was hit by a surge of unauthorised copying. Another is that plain destruction is static in the sense of focusing on the short-run, while creative destruction approaches are dynamic because they attempt to allow for adaptations within the industry (Nelson and Winter, 1982, pp.163ff.).

2.1. Does the distinction between plain destruction and creative destruction matter? The distinction between plain destruction and creative destruction *may* be significant for the debate on copyright because put in this context, copyright is seen to play different roles. Focusing on plain destruction, once it is established that the net effect of a surge in unauthorised copying is damaging to existing suppliers, counter-measures seem desirable. Given the capacity of new copying technologies, many analysts suggest that a continued erosion of the copyright regime would threaten the very existence of an economically viable record industry and therefore believe it is essential that copyright law be strengthened. Copyright enforcement, in particular digital rights management (DRM), is seen as the central challenge to the industry today.

From a perspective of creative destruction, there are several caveats. First, the effects of other ongoing technological change might overlap with the effects of unauthorised copying. Significant broader technological changes could create additional difficulties in isolating and correctly assessing the short run impact of unauthorised copying. Second, any successful adaptation to changed market conditions – beyond efforts to enforce exclusive rights – would mean that some of the adverse impacts of unauthorised copying would be temporary and that some positive impacts could become more significant over time as suppliers learn to handle these developments better. Adaptation would mean that studies of plain destruction overestimate the long-run damage brought by unauthorised copying. Third, these two levels on which technological changes within the industry might matter could be linked and might come to perpetuate each other where any technological change diminishes barriers to entry, increases competition and incentives to innovate. Roughly speaking, this would be the prediction of theories of radical technological change (e.g. Abernathy and Utterback, 1975; 1978; Freeman and Perez, 1988; Klepper, 1996).² If technological change occurs and these developments have asymmetric effects on

²No pretences are made here to demonstrate with any certainty that at this point in time the record industry is undergoing a period of radical technological change. Radical technological change is defined by its outcome - a series of innovations leading to jumps in productivity, the rise of successful innovators and the demise of those failing to adapt. To identify it as an ongoing process is thus bound to be an imprecise art, not least because it depends upon a mutable institutional infrastructure (e.g. intellectual property law) and in technological change “a strong element of randomness will always remain” (Lundvall, 2001).

various types of market participants, it would be desirable to distinguish between the destruction due to unauthorised copying on the one hand, and any adverse effects on incumbent firms due to increased competition with emergent markets for close substitutes (cf. Michel, 2005; Liebowitz, 2006), with legitimate new market entries, or with particularly innovative competitors. In short, an emphasis on the possibility of changes within the record industry alerts us to the possibility that copyright enforcement might not provide the only way of countering the trend of falling sales. Other types of innovation and structural change might make a contribution to saving the industry, if not all firms in it. The different emphasis comes out clearly in the perception of online distribution. In addition to the appropriability problems associated with it, the explosive growth of file-sharing networks clearly demonstrates some of the potential for distributing recordings without physical sound carriers. Innovative firms that succeed in introducing new or improved products as well as new processes – even where these compete with established business models – might stand a better chance to thrive in spite of the potential for unauthorised copying.

Last but not least, specific aspects of copyright regimes might even be at odds with the desirable aspects of swift technological change (David, 1993; 2004). First, they can sustain market power by providing incumbents with temporary monopolies. Second, they can require protracted negotiations between a number of right holders before authorised new services can be introduced to the market (Merges, 1996; Einhorn, 2001; Depoorter et al. 2003).³

That said, whether file-sharing in the record industry is studied solely in terms of plain destruction or also within a context of creative destruction can lead to conflicting conclusions as to the need for adaptations of the copyright regime. The following section will detail out how this paper attempts to determine whether there is empirical evidence for creative destruction in the record industry. It needs to be clear from the outset, however, that processes of plain destruction and creative destruction are not mutually exclusive. Technological change in the record industry may very well lower barriers to entry, promote competition and spur further innovation at the same time as unauthorised copying – as a specific aspect of the diffusion of new technologies – displaces demand.

3. HOW TO DISTINGUISH PLAIN DESTRUCTION AND CREATIVE DESTRUCTION

Where the conditions for profitable production cease to exist, the plain destruction of an industry will occur: “plants close, employment shrinks, output declines, and productivity stagnates” (Levinsohn and Petropoulos, 2001, p.1). It is claimed the partial erosion of property rights in the market for phonograms has caused these adverse effects on the record industry.

Creative destruction is a more ambiguous process. After a radical innovation sets competence destroying technological change into motion, the process of creative destruction comprises of two roughly simultaneous phenomena at the industry level. One is growth amongst innovative and thus more productive firms (the creative part of ‘creative destruction’). The other is recession amongst firms that remain focused on traditional processes, products and services and do not partake in productivity

³Subject to some variations in national legislations, right holders include record companies and publishers, as well as performing artists and composers/authors. Negotiations also take place between and within organisations representing these groups, in particular collecting societies.

increases even when they are losing market share to innovators (i.e. destruction). Ultimately, the process of creative destruction will lead to productivity increases throughout the industry as superior products or processes are widely adopted.

Creative destruction cannot be distinguished from plain destruction on the basis of aggregate turnover levels in the market for recordings. Creative destruction could depress total turnover temporarily (say if the demise of incumbent firms occurs more rapidly than the rise of innovators replacing them). It could even depress turnover more permanently (say if innovations bring cost reductions in a market with a low price elasticity of demand). Thus, creative destruction or plain destruction could very much look the same to an observer who focuses mainly on aggregate turnover levels.⁴ That is why falling sales in the record industry cannot settle the issue whether the industry is going through plain destruction or creative destruction.

Creative destruction may be distinguished from plain destruction because it entails high innovation intensity, the introduction and growth of new services and products or new production processes and substantial productivity gains. Doing so in practice appears prone with difficulty, however. Of course, the rapid growth of authorised services online (such as i-tunes) and via mobile telephone networks (e.g. Jamba) over the last years illustrate an incidence of innovation that is widely regarded to be of great significance for the future of the industry. At present, however, the economic value of these innovative services and products remains marginal in comparison to the commercialisation of physical phonograms and secondary rights. What is more, valid firm-level measures of innovation intensity or productivity in the German record industry are hard to come by.

Thus, another characteristic feature of creative destruction is studied here. In an initial phase, radical technological change is regularly accompanied by an increase in the number of market entries as new firms seek to exploit the opportunities offered by new technologies (e.g. Abernathy and Utterback, 1975; 1978; Klepper, 1996; Breschi and Malerba, 2001). This pattern has been used to distinguish creative destruction from plain destruction by Levinsohn and Petropoulos (2001): “Declining industries, as well as those undergoing creative destruction, exhibit substantial exit. The difference between the two is that in industries undergoing creative destruction, the exit is, at least in part, countered with simultaneous entry.” Furthermore, initially a period of swift technological change and creative destruction will frequently shift competitive advantages from large organisations to small firms (e.g. Peterson and Berger, 1975; Evans and Wurster, 1999; Tripsas, 1997). It appears that as a rule small firms “have some comparative advantage in the earlier stages of inventive work and the less expensive, but more radical innovations, whereas large firms have an advantage in the later stages and in the improvement and scaling up of early breakthroughs” (Freeman and Soete, 1997, p.234). Peterson and Berger (1975) identified such patterns in past periods of swift technological change in the music industry (see also Chapple and Garofalo, 1997; Tschmuck, 2003).

This paper analyses data on the number of record companies in the German record industry. The nature of the data makes it possible to roughly distinguish between larger and smaller firms. On this basis, two observable aspects of creative destruction that would not be expected in the context of plain destruction are tested for:

⁴The same holds for other aggregate industry data such as the number of jobs (Levinsohn and Petropoulos, 2001).

- (1) a high number of market entries in spite of falling total revenues to the industry;
- (2) asymmetric effects on small and large record companies.

The working definition of record companies employed here is: ‘any legal person that acquires mechanical reproduction rights and publishes recordings’.⁵ Record companies are used here to illustrate developments in the record industry for they tend to be the most specialised contributors to the production and marketing of sound recordings.⁶

4. THE GERMAN MARKET FOR SOUND RECORDINGS

The primary market for sound recordings in Germany (in which copies are sold to end consumers for private use) provides an important example. On the one hand, it is currently the fourth largest worldwide after the USA, Japan and the United Kingdom. On the other, it is the most severely affected major market in the ongoing global recession of the record industry with an approximate 43% decline in real revenues between 1997 and 2005 (BV Phono, 2006).⁷

There are no comprehensive official statistics on turnover in the primary market for sound recordings (referred to as the market for phonograms henceforth) in Germany. Instead, the main source of such data is the *Bundesverband der Phonographischen Wirtschaft* (BV Phono) that – together with associated organisations – assembles and publishes an annual report on the German record industry. This data also serves as the foundation for the German contribution to the widely used statistics published by the International Federation of the Phonographic Industry (IFPI).

According to BV Phono (1995) data, real turnover in the German market for phonograms (including VAT and at retail value)⁸ grew rapidly during the mid-1980s and early 1990s. At 2000 prices, it almost doubled from DM2.85 billion (€1.46 billion) in 1984 to DM5.63 billion (€2.88 billion) in 1994. Explanations include the

⁵Cf. §19 (2) Urheberrechtsgesetz (German copyright law); this definition of ‘record company’ includes ‘self-publishing’ creators that publish recordings of their own creations or retain all related rights when co-operating with intermediaries in doing so.

⁶On the one hand, record companies acquire rights to the recordings they deal with and thus directly participate in most sorts of income from the marketing of recordings. Sound recording studios, manufacturers of phonograms, distributors and retailers do not directly participate in income from secondary use of recordings. On the other, record companies may rely entirely on direct income from the marketing of recordings. Publishers of compositions (publishers), composers and performing artists usually directly benefit from other ways of marketing music such as the live music business to much greater extent.

⁷Income to record companies from secondary use of recordings that is administered by record companies’ collecting societies has grown moderately throughout the last 15 years (GVL 2006). Information on income to record companies from individually administered commercialisation of secondary rights was not available.

⁸BV Phono turnover data combines data collected by the association and extrapolations from representative consumer studies. According to BV Phono management, turnover figures collected by the association itself are based on voluntary reports of about thirty of the largest distributors/wholesalers of phonograms. This data is supposed to cover between ca. 80 and 95% of the market for any given year. (As distributors tend to co-operate with a number of record companies, BV Phono figures probably incorporate a number of titles published by record companies that are not BV Phono / IFPI Germany members.) To assess the size of the market not covered by distributors’ reports, the BV Phono falls back on extrapolations from representative consumer studies by the GfK. In this paper, the aggregate figure is used.

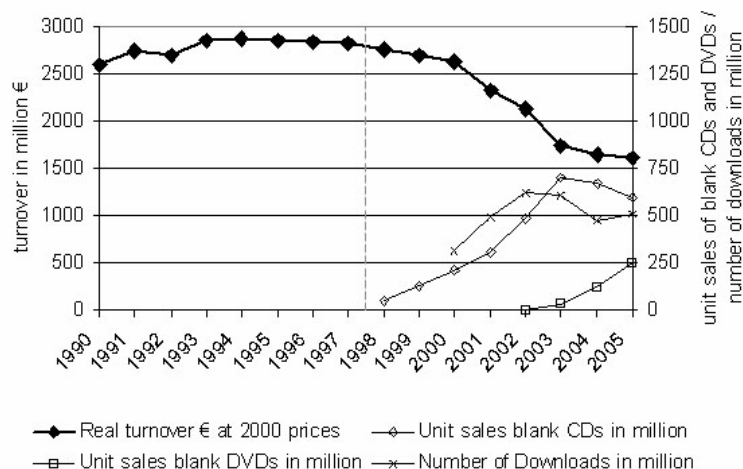


FIGURE 1. Real Turnover in the German Phonogram Market and the Diffusion of Digital Copying Technology (Sources: BV Phono, 1995; 2005; 2006; GfK, 2002; 2004; 2006)

emergence of the CD as the dominant and highly valued sound carrier (IFPI, 2004). A specific factor to the German market was German unification adding roughly 18 million individuals to the domestic market now encompassing about 82 million. Real turnover in the German market for phonograms has been roughly stable at this high level between 1993 and 1997 (see Figure 1).

In 1998 this picture began to change. Since that year, real turnover has fallen by more than 2% annually.⁹ The years 2001, 2002 and 2003 exhibit dramatic falls of up to 20.9% in 2003 alone (BV Phono, 2006). In total, real revenue from sales of pre-recorded sound carriers – the majority of which contain popular music – fell by 43.0% between 1997 and 2005. The bulk of this decline in real turnover is due to falling unit sales. The BV Phono estimates that unit sales decreased by more than a third (36.9%) during the same period. Prices per unit, on the other hand, have remained nearly stable in nominal terms.

The more vociferous parts of the record industry identified the explosive growth of what they called “piracy” – CD-burning and p2p-file-sharing ignoring intellectual property – as the reason for a downward shift in demand for authorised copies. As figure 1 illustrates, in Germany a period of rapid growth in the unit sales of blank CDs since 1997, of Napster and p2p-file-sharing networks since June 1999, and of blank DVDs since 2003 coincides with falling turnover in the market for authorised phonograms. (See Appendix 1 for further information on the data.)

Due to similar observations in other major markets, most importantly in the US, recessions in markets for phonograms came to be perceived as *the* copyright story

⁹There is a slight reservation regarding this 2% threshold. In the yearbook 2006, real falls in 2000 are given at 1.8%. In previous yearbooks (BV Phono 2004; 2005), the figure was 2.2%. Such discrepancies are likely to be the result of revaluations according to changes in the member firms.

of late (Liebowitz, 2005b). The economics of copying provide the insight that unauthorised copying does not automatically harm suppliers because a displacement of demand could be offset by the benefits of sampling, by network effects or indirect appropriability (Peitz and Waelbroek, 2003; Liebowitz, 2005a). The extent to which unauthorised copying does harm suppliers under the specific circumstances of the contemporary record industry is a contentious empirical question. While most empirical studies find that the net effect of file-sharing on sales is negative (Liebowitz, 2005a), there is some disagreement as to the magnitude of the problem. Accordingly, within the debate on plain destruction, there are disagreements whether unauthorised copying can explain much of the falls in sales or whether it merits costly countermeasures.

In this paper, the question of plain destruction is intentionally bypassed to investigate another issue. *Ceteris paribus*, a recession of the reported magnitude can be expected to lead to a process of plain destruction – regardless of whether it is the result of unauthorised copying or not. Incentives to supply recordings would be reduced. Some producers would be expected to exit the market while few would find it desirable to enter. On the other hand, market entries might be considerably more frequent and the recession might mask elements of a more ambiguous process of creative destruction in the context of substantial technological changes – beyond the diffusion of copying technology – and attempts to adapt business models to a changing environment.

Therefore the question whether market entries were high during recession is addressed by investigating several time-series on the number of record companies in Germany. To allow for a comparison, the last years are partitioned into two periods according to developments in (1) the size of the market for phonograms and (2) the intensity of unauthorised copying as follows:

- the ongoing period of ‘recession’ from 1998 to at least 2005, during which first CD-burning and then file-sharing emerged as mass phenomena and real turnover consistently fell by more than 2% annually. For convenience, this paper refers to this period as the recession period only. (This recession period can be subdivided into a period of initially relatively modest falls in nominal turnover (<3%) and only emergent unauthorised copying in 1998 and 2000. Then, with the year 2001, both CD-burners and file-sharing networks were widely used while the phonogram industry reported quite drastic falls in turnover (>3%) each year.)
- the preceding ‘boom’ period from 1982 to 1997 during which the industry first expanded rapidly and, since the mid-1990s, continued to hum along at historically high, if stagnating, levels of turnover; throughout this period, unauthorised copying was well contained in Germany.

Falling sales in the German market for phonograms as well as the diffusion of digital copying technology conveniently coincide. They need to be understood as a gradual intervention, however. What is more, it is very likely that much of the effect that the recession might have on the number of suppliers will be delayed. In other words, suppliers’ decision to enter or exit the market will react to the recession with a lag. This lag will depend on suppliers’ expectations, their financial reserves, their short term costs of changing to a different type of product as well as their opportunity costs. Suppliers can be assumed to be heterogeneous in these respects and therefore differ in their willingness to participate in the market.

Both the gradual nature of the intervention as well as the potential lag complicate the assessment of the recession's impact. Assuming heterogeneity of suppliers, a process of plain destruction in the context of a recession can be expected to show up almost immediately in a gradual downwards shift in the slope of the time-plot of the number of firms (cf. Cook and Campbell, 1979). Some existing suppliers should not be able to cope with falling sales for longer periods of time. Some potential market entrants should be deterred by the recession right after it transpires. When the full impact of the recession has transpired and how severe the accumulated effect will be is more difficult to predict. However, over time a recession of the reported magnitude would appear likely to result in a decreasing number of suppliers in absolute terms (unless there are very substantial countervailing factors). This would be the prediction of more ambitious versions of plain destruction that emphasise the central significance of unauthorised copying via digital media and regard it to pose an existential threat to the copyright industries.

It would be evidence of creative destruction if market entries were so numerous that they offset what should be increased numbers of exits during a severe recession. This might show up in absolute growth in the number of suppliers. As will be apparent below, the population of record companies in Germany has expanded throughout the period under investigation. Under such circumstances, an increased or stable growth in the number of firms would be more sound indication of creative destruction.

5. THE NUMBER OF MARKET ENTRIES BY RECORD COMPANIES

The German record industry is served by a strong, single collecting society – the ‘*Gesellschaft zur Verwertung von Leistungsschutzrechten*’ (GVL) – administering the secondary use of sound recordings. Furthermore, two industry lead bodies cover a large share of active firms. The extent to which smaller firms in Germany are organised in industry-lead bodies seems to be extraordinarily high in international comparison. This provides an opportunity to include such firms into the analysis. Membership in the collecting society GVL and industry lead-bodies are used as a proxy for the number of record companies in Germany. Net increases in the number of members will be used as two independent measures of market entries. (This measure should underestimate the number of market entries where market exits are not accounted for.) Because the two industry lead bodies cater for firms of different size, it is further possible to make a rough and ready distinction between large and small firms.

5.1. Registrations with the collecting society ‘Gesellschaft zur Verwertung von Leistungsschutzrechten’ (GVL). In Germany, the GVL holds a *de facto* monopoly in the administration of certain secondary uses of sound recordings. On behalf of its members, the GVL monitors, collects and distributes fees for the rights of broadcasting, making available, reproduction, rental and distribution via cable of recordings. In 2002, the organisation distributed more than €124 million to its members (GVL, 2003).

When record companies register with the GVL, they receive one or several so-called “label codes”, a set of symbols identifying the right holder. 6,027 different organisations had one or more such label codes registered with the GVL in 2005. A time series of the total number of such “producers of phonograms” in the GVL nomenclature was available for this paper.

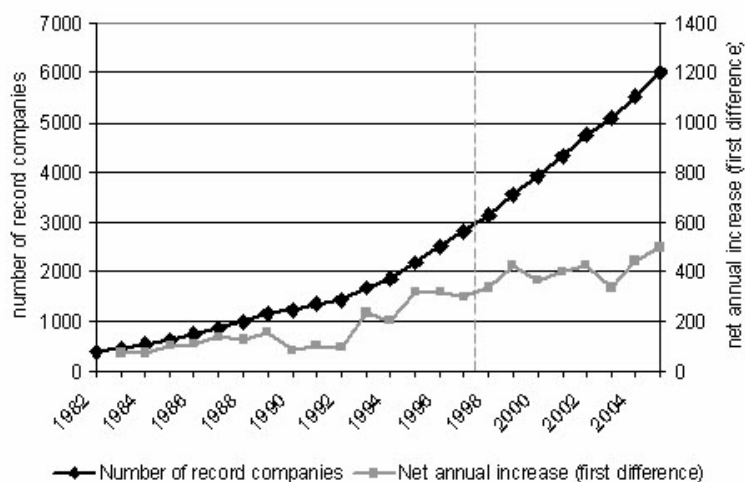


FIGURE 2. Number of Record Companies Registered with the Collecting Society GVL (Source: GVL, 2006)

There are good reasons to believe that a very large share of all record companies in Germany become members of the GVL and register their repertoire. First, there are vast economies of scale in monitoring and enforcing the secondary rights administered by the GVL so that it tends to be prohibitively expensive for individual firms to go it alone (Hollander, 1984; Besen and Kirby, 1989; Macqueen and Peacock, 1995; Watt, 2000). Second, the GVL runs the central directory of recordings and right-holders. Registered right-holders make themselves and their repertoire identifiable to potential users. This is a benefit of registration that applies even for those record companies that do not expect to receive any substantial share of the GVL's proceeds. Furthermore, the collecting society finances itself by retaining a share of the collected royalties. The fixed cost of membership is very low.

Due to this method of financing the GVL, not all firm exits will result in the immediate cancellation of the label codes registered by this firm. What is more, firms are free to register subsidiaries separately. The number of record companies registered with the GVL is thus probably better understood as a cumulative measure of record companies that have acquired rights over the years, rather than of record companies that continue to operate as independent business units at present. The number of GVL memberships is likely to exceed the number of record companies. Nevertheless, it should be possible to infer from the annual net increase in the number of GVL members on changes in the number of market entries.

Figure 2 exhibits the number of record companies registered with the GVL between 1982 and 2005 as well as the annual net increase (first difference) of firms between 1983 and 2005. A dotted line marks the beginning of the recession period. The most obvious point is that the number of GVL registrations increased consistently during the last 23 years. Annual net increases have grown less uniformly but also show a clear upward trend throughout the period under investigation, including the recession period.

	Year	Record companies	Net increase	Mean average net increase
	1990	1236	83	
	1991	1339	103	
	1992	1435	96	
Boom	1993	1668	233	206.4
	1994	1869	201	(excl. 1990-1992: 273.8)
	1995	2185	316	
	1996	2503	318	
	1997	2804	301	
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	1998	3139	335	
	1999	3562	423	
	2000	3927	365	
Recession	2001	4329	402	402.9
	2002	4751	422	(excl. 1998: 412.6)
	2003	5087	336	
	2004	5528	441	
	2005	6027	499	

FIGURE 3. Number of Record Companies Registered with the Collecting Society GVL (Source: GVL 2006)

Two further observations are similarly obvious. First, the two related time-plots do not closely resemble any single linear growth pattern. Assuming a linear pattern as the rule, there seems to be a shift in slope around the year 1993. Where the average annual net increase in the number of label registrations between 1982 and 1992 was 95.6 with a peak of 154,¹⁰ annual net increases shot up to over 200 in 1993 and 1994. They were consistently over 300 thereafter following a steeper slope upwards. This interpretation suggests that something happened around the year 1993 that changed the long-term growth path in the number of record producers. Interviews with GVL management and other industry insiders have not uncovered any explanation for what might be a changing trend due to changes in the services offered by the GVL. Some of the initial intense growth might be the delayed effect of German unification, i.e. a sudden expansion of the domestic market. The continuity of relatively rapid growth points towards a more continuous change, however.

Second, considering that at the beginning of the period for which data was available, there were less than 400 GVL memberships, the expansion in the number of record producers registered with the GVL seems quite pronounced. It is nearly 16 times higher in 2005 than it was in 1982. Both of these observations have implications for the comparison of market entries during recession and boom that will be discussed below.

See Figure 3 for a simple comparison of means of annual net increases during the eight recession years (1998 to 2005) and the preceding eight boom years (1990 to 1997). The average net increase in the number of record companies during the recession period exceeds that during the preceding boom period. The net growth of label codes was consistently higher in any given year during the recession period than in any given year during the boom period for which data was available. (These

¹⁰Perhaps surprisingly, the period between 1989 and 1992 during which German unification took shape, coincides with an unusually low growth in the number of GVL members.

two statements remain valid when we exclude the years 1990 to 1992 during which net growth appears to have been unusually low and/or the transition years such as 1998, both 1998 and 1999, or 1998 to 2000.) It would seem that the impact of the recession has not been as dramatic as the current discussion of an existential threat for the copyright industries would appear to suggest.

That said, the recession might nevertheless have had the more limited effect of diminishing the speed of the expansion in the number of suppliers. Assessing the validity of this claim is more difficult, because the trend in GVL memberships is difficult to specify. This trend is ambiguous as it can be modelled reasonably well both in terms of (1) a linear growth pattern that shifts in slope around the year 1993 or (2) by an exponential growth pattern. In the former case, the most probable result would be that the recession has had no apparent impact on the net annual increase of GVL memberships.¹¹ This is surprising regarding the severity of the recession as well as the observation that the expansion in the preceding boom years appears to have been exceptionally rapid. Assuming an exponential growth pattern during the years preceding the recession, it would appear to be more probable that the slope of the time-series has started to shift downwards with the recession.

In short, this time-series leaves scope for various interpretations regarding the effect of the recession on growth in the number of record companies and by implication the number of market entries. Nevertheless, it seems quite certain that this effect has so far been modest in comparison to frequent claims that the industry would face an existential threat due to a surge in unauthorised copying. Two observations conflict with such an account. First, the number of record companies seems to have grown rapidly in the years immediately preceding the recession, which might be evidence of structural changes before the external shock of unauthorised copying. Second, the annual net increase in the number of record companies continues to follow a pronounced upwards trend in spite of the severity of the recession. Whether the slope of this time-plot has shifted downwards at all is more difficult to tell.

These findings have implications for studies of unauthorised copying and its impact on the record industry. Most studies focus on unauthorised copying through file-sharing networks. Judging by the expansion in the number of record companies, it seems likely that other developments facilitated market entry in the years before file-sharing and continue to do so until today. Studying the effects of file-sharing in isolation – assuming implicitly that the industry was in a state of static equilibrium before the surge in unauthorised copying – might be misleading, at least in the German case.

Due to a high number of multiple registrations and some cross-border registrations, there are potential problems in inferring from new registrations of label codes on the number of market entries by record companies in Germany. (See Appendix

¹¹The result depends on the specification of the pre-period which is used to determine the slope of the upwards trend prior to the recession. Both comparisons of the post-period with long as well as short pre-periods suggest no downwards or even a modest upwards shift during recession. Comparison with some boom periods of intermediate duration would suggest a slowing of the upwards trend. This is due to the unusually low values around German unification in the early 1990s.

2 for further information on the GVL data).¹² To verify results, membership in relevant industry lead bodies can be analysed as an alternative, independent measure of the number of record companies in Germany.

5.2. Industry lead body membership. To complement the analysis of GVL data, this paper investigates membership in two industry lead bodies. First, the German chapter of the ‘International Federation of the Phonographic Industry’ (IFPI Germany) caters for larger record companies. All four “major” multinational record companies¹³ – that by themselves account for more than three quarters of the market – play a strong role in IFPI Germany. In November 2004, IFPI Germany had 14 full members and 332 associated members. Associated membership in IFPI Germany costs €875 annually.

Second, many smaller intermediaries in the music industry have coalesced in the ‘German Association of Independent Labels, Publishers and Producers’ (VUT). At 925 paying members in November 2004, the number of member organisations in the VUT far exceeds those of IFPI Germany, while the IFPI Germany members account for the bulk of turnover generated by record companies in Germany. The vast majority of VUT members – more than 89% – operate as record companies (Handke, 2006). The annual membership fee of the VUT is between €150 and €275.

Together, IFPI Germany and VUT are particularly suitable because there are important financial incentives for record companies to become members in one of these two organisations. Record companies are obliged to give a cut to composers and authors in a specific way. They pay so-called mechanical royalties – fixed fees for each reproduction of a sound recording on a sound-carrier – to the authors’ collecting society ‘Gesellschaft für musikalische Aufführungs- und mechanische Vervielfältigungsrechte’ (GEMA). In practice, this GEMA fee is estimated to account for roughly 7% of the net retail price (excluding VAT) for full-price albums. Both IFPI Germany and VUT have negotiated a non-cumulative 20% rebate on these fees with GEMA. Given the GEMA rebate, the combined number of members in these two industry lead bodies should be another, reasonably comprehensive measure of the population of record companies in Germany. (The choice for record companies between joining either IFPI Germany or the VUT will be addressed below. See Appendix 3 for further information on IFPI Germany and the VUT.)

Figure 4 presents the available data on the number of IFPI and VUT members between 1993 and 2004, the sum of members in these two industry lead bodies and the net increase in members for each year. The total number of lead body members has expanded throughout the period under investigation but the number of members in IFPI Germany and VUT developed quite differently.

IFPI Germany membership expanded throughout the boom period from 259 members in 1994 to 345 in 1997. During the recession period thereafter, it fluctuated without consistent pattern around an average of 355 firms and stood at nearly exactly the same figure in 2004 as in 1997, right before the crisis set in. IFPI Germany membership thus does not exhibit a falling number of firms usually

¹²Furthermore, the time-series consists of relatively few observations, while spanning a long period of time so that it is difficult to take care of issues with autoregression and autocorrelation as well as the effects of history.

¹³Universal Music, SonyBMG, Warner Music, and EMI.

	Year	IFPI Germany		VUT		Total	
		members	net annual increase	members	net annual increase	sum IFPI and VUT	net annual increase
	1993	--	--	30	30	--	--
	1994	259	--	63	33	322	--
Boom	1995	286	27	115	52	401	79
	1996	324	38	248	133	572	171
	1997	345	21	345	97	664	92
	1998	352	7	421	76	773	109
	1999	365	7	482	61	847	74
	2000	360	-5	527	45	887	40
Recession	2001	358	-2	563	36	921	34
	2002	346	-12	637	74	983	62
	2003	361	15	752	115	1113	130
	2004	346	-15	925	173	1271	158

FIGURE 4. Number of IFPI Germany and VUT memberships (Sources: BV Phono various issues; VUT database).

associated with an industry in demise. Nevertheless, the data would be consistent with a reversed trend in IFPI Germany membership. A period of relatively rapid expansion came to an end during the recession.

VUT membership, on the other hand, has expanded throughout the period under investigation. To make sense of data on VUT membership, some peculiarities need to be addressed, however. First, the VUT was founded in 1993. In particular during the first years of its existence, the expansion of its membership cannot provide a trustworthy indication of a growing number of eligible firms. During these years, most of the growth should rather be the result of an ever greater share of already existent firms joining up. Second, only by October 1995 did the GEMA rebate for VUT members come into force. Apparently, existing firms were in fact responsive to the economic incentives for membership provided by the GEMA rebate. A great number of firms joined the VUT the following year so that the number of members more than doubled in twelve months. After the GEMA rebate had become common knowledge, perhaps from 1998 onwards but at the latest after a temporary slump in the growth of membership in the years 2000 and 2001, it would appear that changes in the number of VUT members should provide for a decent indication of changes in the number of eligible firms.

During the recession, membership in the VUT grew consistently. Initially, the net increase slowed, falling to just 36 additional members in 2001. During the last three years covered, net increase picked up again. In 2004, it was higher even than in 1996, the year after the GEMA rebate had been introduced. There are no apparent internal factors – such as sudden, additional benefits of membership or reduced membership fees – to explain the recent strong growth in the number of VUT members. It seems this net increase would be due to an increase in the number of eligible firms.

The foundation years of VUT members as established in a survey in the summer of 2005 (see Handke, 2006) verifies this interpretation. As illustrated in Figure 5, more recent years exhibit higher numbers of firm foundations in spite of the recession. Altogether, 60% of all responding member firms reported to have been

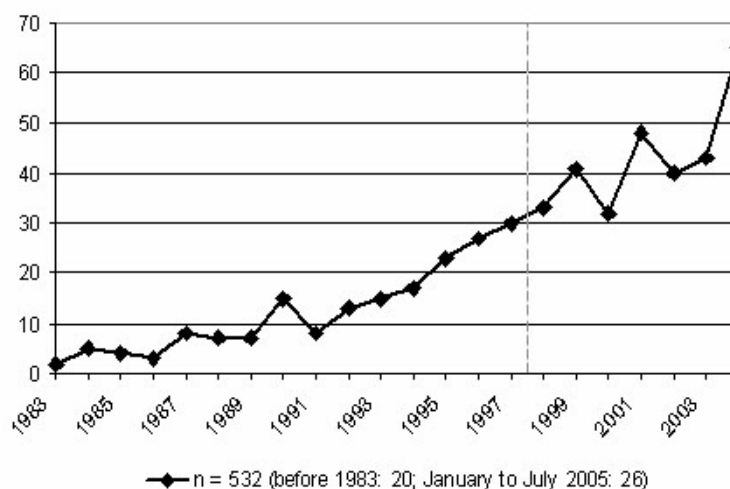


FIGURE 5. VUT Member Firms' Year of Foundation (Source: VUT survey 2005)

founded during the recession years 1998 to 2004. This corroborates the finding of a high number of market entries during recession.¹⁴

On the basis of these observations, it seems possible to answer the two central questions the empirical part of this paper seeks to address: (1) Has there been a high number of market entries by record companies during recession? (2) And are there uneven effects on small and large record companies?

5.3. Has there been a high number of market entries by record companies during recession? It appears that the number of market entries was comparatively high during the recession. Both the number of record labels registered by record companies with the GVL as well as the total number of record companies that are paying members of the two industry lead bodies investigated has grown during the recent period of recession in the market for phonograms. Data on the number of GVL members suggests that the number of market entries during the recession was higher than during the preceding boom period. Whether the growth in the number of firms has slowed at all during the recession is more difficult to tell.

Data on record companies' membership in main industry-lead bodies does not allow for valid inferences on the number of market entries during the boom period. Yet, for the recession period it indicates that the number of market entries has picked up substantially after the year 2001 in spite of particularly severe falls in turnover during these years.

This observation of a high number of market entries during a severe recession is surprising because incentives to start up record companies should be adversely affected by severe falls in accumulated revenues to suppliers of phonograms. The pronounced nature of these findings and the coincidence of these two independent

¹⁴Due to the considerable turbulence in the industry (see figure 4), market entries in the past will be underestimated somewhat in a survey of firms that operate at present, however.

types of sources do raise questions as to the nature of current changes in the record industry.

5.4. Are there uneven effects on small and large record companies? The choice between IFPI Germany and VUT membership is related to firm size. All the major four record companies and some of their main subsidiaries are represented in IFPI Germany, none of them in the VUT. Amongst the vast range of minor record companies, the choice might not always be quite so obvious.

Almost certainly, emotional factors occasionally play at least some role in the choice which industry lead body to join. For example, the status as an independent label – with none or minimal ties to the major record companies – is traditionally valued among many smaller record company. Such firms might find IFPI Germany membership unattractive to start with. The immediately financial aspect of the choice between IFPI Germany and VUT membership starts with the higher membership fee for IFPI Germany membership. (The 20% GEMA rebate applies to both IFPI members and VUT members equally.) IFPI Germany membership might still be attractive because it bestows some exclusive privileges on record companies. These include additional, more minor concessions from GEMA.¹⁵ The value of these concessions regularly relates to the turnover of the firm in question and sometimes applies only to firms generating a certain minimum turnover.¹⁶ Whether a record company finds it worthwhile to pay the higher fee for associated IFPI Germany membership should thus be related to firm size. Comparing developments in the number of members in these two different industry lead bodies provides an opportunity to separately investigate developments among majors and larger commercial record companies on the one hand and smaller, independent record companies on the other.

Some of the main developments of IFPI Germany membership and VUT membership have been discussed above. IFPI Germany membership stopped growing with the beginning of the recession and has stagnated since. VUT membership continued growing throughout the recession. It grew very strongly after the year 2001. It appears that a disproportionate share of the market entries during recession was by so-called “independent”, usually small record companies.

5.5. Further discussion of empirical findings. This paper provides first evidence that there has been a high number of market entries during the ongoing recession in the German record industry. This is more consistent with a process of creative destruction than with a pure case of plain destruction. Before drawing further conclusions from these findings it seems desirable to address two critical questions. First, has the record industry actually begun to process the external shock of a sudden surge in unauthorised copying? Second, are many of the new market entries sustainable?

Figure 6 exhibits exits from and entries to the VUT since 1997, which provides some relevant evidence regarding these two questions. As discussed above, during

¹⁵One illustrative example for such additional privileges is a (limited) rebate of the GEMA fee for larger record companies when these take unsold phonograms off the market. Smaller firms amongst IFPI Germany members are required to provide securities for the privilege. No such rebate scheme was available to VUT members in the time period investigated.

¹⁶For GEMA, this might reflect relatively lower costs and risks when co-operating with a few large partners than with a multitude of smaller firms. It might also reflect predominant interests within IFPI Germany when negotiating with GEMA.

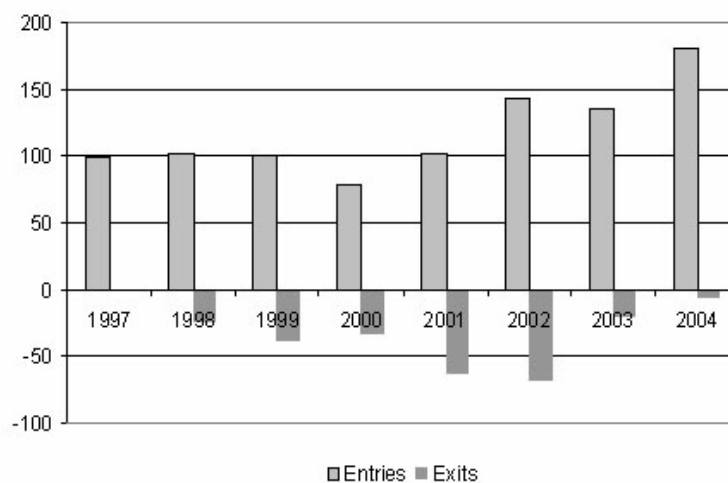


FIGURE 6. Entries and Exits of VUT Members 1997 to 2004 (Source: VUT database).

this period data on the number of members in the VUT begins to be useful for the purpose of identifying trends in the number of eligible firms.

The first main observation is that the number of exits rose significantly from the beginning of the recession in 1998 until 2002. In the two most recent years covered, 2003 and 2004, exits declined sharply to just seven in 2004. Together with the high number of entries, it appears that the part of the industry reflected in VUT data has begun to process the recession quite early. It reacted with increasing turbulence, which – as far as the data from two years can tell – seems to have reverted into a more uniform growth pattern in the number of VUT members after 2002. It would seem that the more recent surge in market entries by small record companies could well be an adaptation to changes in the business environment during the recession.

Second, some record industry insiders suggest that a high level of market entries could be a short-lived anomaly. A mere fragmentation of existing capacity might occur as generations of firms fail but some redundant staff start up what might seem to be similarly shaky successors.¹⁷ To be sure, on the basis of the data presented here it is not possible to determine whether the high number of market entries documents the build-up of new capacity or just the fragmentation of incumbent firms. However, a wholesale dismissal of a high number of market entries as some sort of debris and largely irrelevant is problematic. On the one hand, it fails to explain why many individuals should choose to operate record companies if their chances of success appeared to be slim. On the other, the number of exits from the VUT was surprisingly low during the last two recession years. It seems that many VUT members have found a sustainable mode of operation in spite of severe

¹⁷This is the view taken by some industry insiders with affiliations to major record companies. Many of those more directly involved with independent record companies frequently perceive there to be a boom of this part of the German record industry in spite of a challenging business environment.

falls in accumulated sales in the German market for phonograms and high levels of unauthorised copying (see also Handke, 2006).

6. CONCLUSIONS

The German record industry provides an important example of the world-wide recession in the market for phonograms. After falls in turnover by more than 40% coincided with the diffusion of advanced copying technology, unauthorised copying is widely regarded to pose a threat to the existent industry. Similar interpretations drive the debate on ongoing copyright reforms in many major economies. Many contributions by economists to this debate focus on unauthorised copying and the extent to which it leads to plain destruction. Technological change is usually addressed in terms of a singular, highly visible phenomenon – a surge in unauthorised copying. This paper presented some empirical evidence suggesting that the German record industry was not in a state that resembled static equilibrium all that closely when it was hit by a surge in unauthorised copying. Nor does it seem to have processed this development – and the recession that coincided with it – without further changes.

The available data implies that a few years before the current recession the number of market entries increased substantially, which might be evidence of lowered barriers to entry and structural change. Furthermore, there is little evidence that the current recession would have had a substantial impact on the number of market entries. Many small record companies have entered the market in spite of a surge in unauthorised copying and severe falls in accumulated revenues. This observation challenges the notion that the adverse effects of unauthorised copying on demand could largely explain recent developments in the record industry. It also raises questions as to the permanence and overall scale of the harm of unauthorised copying as well as its distribution effects. This should guard against excessively abstract approaches to studying unauthorised copying. Changes in the German record industry seem to go well beyond plain destruction due to the partial erosion of property rights. The findings presented here are more consistent with a process of creative destruction. During such a process, market participants exhibit diametrically different performances depending on their ability to cope with change, which tends to relate to firm size.

As argued above, plain destruction and creative destruction are not mutually exclusive processes but could very well occur simultaneously. The question is whether pockets of growth and broader changes within the record industry are significant enough to require further attention as a complement to the literature on plain destruction. Arguably this is the case. The evidence presented in this exploratory study seems reasonably pronounced and at odds with what would be expected in a pure case of plain destruction. What is more, the example of the record industry has adopted strategic importance in debates on adequate copyright policy more generally. Getting things right here will probably aid transition processes throughout the copyright industries.

To be sure, the empirical results of this paper raise questions rather than answering them. The central conclusion of this paper is then that for the contemporary debate on copyright it is desirable to improve our understanding of current developments in the record industry in particular by studying innovation and technological change and the significance of the copyright regime for such processes.

Greater attention to changes within the record industry might come to make an important contribution to debates on the copyright regime. None of this is to say that unauthorised copying does not pose a threat. Allowing for apparent changes within the industry, it becomes obvious however that the purpose of adaptations to the copyright regime cannot be to conserve existent business models or a given level of turnover in the market for recordings. To the extent that technological change does occur, copyright extensions and increased investments into enforcement might not constitute adequate copyright policy by themselves. In the context of technological change, copyright policy also needs to provide flexible, neutral and quick solutions for emerging new ways of doing business in order to facilitate innovation and creativity.

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APPENDICES

Appendix 1: Estimates of unauthorised copying

Measures of unauthorised copying should not be used uncritically (cf. Liebowitz 2005a). In Germany, the BV Phono commissions the 'GfK Panel Services Consumer Research GmbH' (GfK) to monitor private CD-burning and music downloading as part of the GfK's extensive "consumer tracking" activity (GfK, 2002; 2004; 2006). Their extrapolations are the most detailed measures of unauthorised copying available for Germany. They document a rapid diffusion of CD-burners and blank CDs since 1998. Since 2003, DVDs are also widely used for private data storage. Of 594 million blank CDs used for storing data in 2005, an estimated 44% – that is 261 million – contained musical recordings while the estimated number of individual users that burned CDs with musical content stood at around 21 million in 2005. Massive music file-sharing via the Internet broke onto the scene with the emergence of Napster in June 1999. The GfK provides extrapolations for downloads of musical recordings starting from the year 2000. By 2005, an estimated 8.2 million individual users downloaded 512 million music files. Of these 94% were downloaded via a multitude of peer-to-peer (p2p) file-sharing networks.

Appendix 2: GVL data

In the GVL terminology, label codes are given to “producers of phonograms”, that is legal entities other than creators that hold secondary rights to recordings. This is practically identical with record companies as defined in this paper. According to GVL management, amongst 5,087 registered “producers of phonograms” in 2003, only three organisations did not fit this definition of record companies. These were the foreign collecting societies PPL (Britain), CENA (the Netherlands), and SPPF (France) that represent a great number of record companies from the respective countries.

There are three potential problems in inferring from the number of record companies registered with the GVL on the number of market entries by record companies. The first problem concerns multiple registrations of single firms. Record companies frequently register several subsidiaries, e.g. to facilitate separate accounting for semiautonomous business units. In fact, the net growth of GVL registrations consistently exceeds growth in the number of record companies as indicated by industry lead body membership (see table 2). That is GVL data does not measure the number of record companies directly. *Ceteris paribus*, changes in the number of GVL members should reflect proportional changes in the number of firms that register them. Any shift in the ratio between record labels and registering firms would bias the result. On the basis of the available data, it is hardly possible to control for changes in the number of GVL registrations per independently operating record company in any meaningful way. Second, GVL data provides no separate records of exits and entries. This data probably does not fully reflect the number of record companies that cease to actively market recordings and/or produce new recordings as independent economic entities in any given year. For example, firms that discontinue all other business activity and do not sell their rights in the process can still continue to remain registered with the GVL at close to zero costs until their rights expire (currently that period usually lasts for 50 years). The third problem are cross border registrations. The GVL is obliged to register record companies based in other territories than Germany, if these request membership. In practice, the first foreign firms have registered with GVL in the mid-1990s. After what staff describe as “gradual growth”, foreign record companies accounted for ca. 400 label codes in November 2004, ca. 8% of the total. No estimates are available on how many German firms have registered (only) abroad.

There is no apparent evidence of substantial changes to record companies’ behaviour regarding multiple registrations with the GVL or cross-border registrations that would explain much of the extraordinarily strong growth in label code registrations. On the other hand, they cannot be dismissed comprehensively, which requires some caution with detailed interpretations of this data. This is one of the reasons why in this paper an attempt is made to verify findings from the analysis of GVL data with an analysis of industry lead bodies that serve record companies.

Appendix 3: Industry lead bodies

Industry lead body membership provides an opportunity to verify findings from GVL data. As a rule, the IFPI Germany and the VUT charge a fixed annual fee per organisational unit registered as member. Where this applies – i.e. for all of the VUT members and the vast majority of (associated) members of IFPI Germany – multiple registrations or prolonged membership of inactive firms should be rare. The share of foreign members is negligible in both organisations. However, some

minor overlap between the two industry lead bodies probably does exist: of 925 VUT members at the end of 2004, 52 (5.6%) reported they were IFPI Germany members at the time of applying for VUT membership (VUT database).

a) IFPI Germany

In order to reduce conflicts of interest within the organisation, IFPI Germany exclusively accepts firms as members that operate as record companies in order to reduce conflicts of interest within the organisation. Associated members pay an annual membership fee of €875 (November 2004). Full members make a larger contribution to the remaining budget needs depending on an assessment of their market share.

Market share also determines the weight of votes in the general meeting. Associated members generally cannot participate in the general meeting, the main decision making body of IFPI Germany. They elect a representative whose vote is given the same weight as that of the single most significant full member. Associated members play a similarly subordinate role in specialised committees formed within IFPI Germany. According to IFPI Germany management, associated membership is attractive mainly for the concessions that GEMA grants to IFPI members (see section 5.4).

b) The VUT

The vast majority of VUT members – more than 89% – operate as record companies (Handke, 2006). The VUT's management is not aware of any significant changes to the share of record companies among their members over the last years.

The regular annual membership fee of the VUT is €275. Firms that claim to generate an annual turnover below €50,000 with their combined activity as record labels and music publishers can request a reduction to €150. According to the VUT's managing director, about 2/3 of all members pay the reduced membership fee. In October 1995, a 20% rebate with GEMA for VUT members – equivalent to that granted to IFPI Germany members – came into force. Record companies of very modest size can expect to gain economically from VUT membership. If an imaginary record company had to fully pay a 9% GEMA fee on the 12,50€ net retail price of full-length CDs, it would benefit from membership as long as it sells more than 667 such CDs annually at a VUT fee of €150 or 1222 such CDs at a VUT fee of €250. While the reality can be a lot more complex, membership seems to be worthwhile for record companies of very modest size and the total of VUT and IFPI Germany membership should capture a very large proportion of record companies operating in Germany.

Because the VUT was founded quite recently (and the GEMA rebate came into force even later), there is not much point in comparing the average net increase of lead body members during recession and boom in order to infer on the number of record companies and market entry. There is simply no data available for the boom period that would allow for a meaningful comparison.

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