Small Firm Start-up by Composers in the Recording Industry

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ABSTRACT. The paper examines new record company formation by music composers. In particular, it addresses their decision to release a record i.e. either to contract their music to record companies or to start-up their own company. In so doing, the research entails the collection and analysis of new data on the behaviour of musicians in the intermediate market for music. The research finds that musicians regard incumbent record companies to have a first mover advantage and that they generally aspire to secure a record contract rather than set-up their own company. Composers who start-up their own company usually do so because of 'push' rather than 'pull' factors and hence usually represent artistic enterprise which has been rejected by incumbent firms. In this manner, new firm formation by composers does not appear to represent the seeds of future industry.

1. Introduction

In most models of the supply of enterprise, such as Kihlstrom and Laffont (1979) and Evans and Jovanovic (1989), new firm formation is seen as the result of an individual's career choice between wage work and self-employment. However, in practice enterprise is often rewarded in the employed sector so that a proportion of wage work entails a reward for enterprise. Models of such a market have been developed by Burke (1995a) who augmented the model of Evans and Jovanovic to include entrepreneurial employment and also Holtz-Eakin et al. (1994) who allow for the possibility that self-employed entrepreneurs may merge their activities into partnerships or corporate enterprises. From an empirical perspective the distinction is quite important as in the former models new firms are always associated with a net increase in enterprise, whereas in the latter, new firms may be either dynamic new enterprise or rejected enterprise from the employment sector. In the phraseology of Foreman-Peck (1985), new firms may be either 'seedcorn' or 'chaff'.

The functioning of the recording industry is more akin to these latter models. Record companies sell audio software (cassettes, compact discs etc.) containing the recordings of unique artists. The industry's vertical structure is such that composers licence the composer and phonographic (particular recorded version of a composition) rights to record companies for exclusive sale in defined market areas; usually nations. The record companies add further manufacturing, marketing and managerial inputs in order to generate the final pre-recorded audio software output e.g. albums such as the Beatles' 'Abbey Road' or REM's 'Monster'.

In this setting composers are faced with the choice of licensing their musical output to record companies or actually creating their own record company. The paper aims to analyse this career choice and this is pursued through an analysis of a survey of Irish composers who are also members of the Performing Rights Society (PRS). Since in virtually all national markets the recording industry is characterised by an oligopolistic industry with product differentiation, the firms that are created by musicians are usually 'fringe' firms: they are small and have restricted market power.

The paper is divided into three sections. Section one defines the theoretical framework. It models the market for music and the expected income a composer may hope to receive through a licensing agreement with an existing record company, or through the formation of her own company. Section two uses a new data set taken from the author's D.Phil thesis which surveys Irish based

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members of the PRS. Questions 3 and 4 of this questionnaire survey relate to new firm formation by musicians. Finally, section three conducts a logit analysis of the determinants of new record company formation by composers using variables from a range of questions in the questionnaire.

2. Section I: A model of the supply of creative musicians

This section is aimed at providing the reader with an overview of the functioning of the audio software market and in so doing to identify the main economic factors that affect composers' income opportunities. The significance of these factors will be investigated in the logit analysis of section three.

The pre-recorded audio software market consists of three groups of agents: musicians, record companies and consumers. In economic terminology these may be respectively labelled: producers of intermediate goods, final good manufacturers and consumers. Thus, the market for music can be summarised by modelling consumers' demand for music, using this to determine the behaviour of record companies, and using record company behaviour to describe the intermediate demand for composers' music. Since the audio software market is characterised by product differentiation, we assume that consumers have heterogeneous preferences. Thus, the demand for each audio software music title is assumed to be of the Chamberlinian form

$$x_i = x_i\,(p_i,\, p_{-i},\, M), \tag{1}$$

where x is the vector of available $i \ldots z$ audio software titles, x_i is the quantity demanded for title i, p_i is the price of x_i and p_{-i} is the vector of prices for the remaining elements of x. M is a price vector for all other goods which we denote as G. Inverting (1) we get the Chamberlinian price function

$$p_i = (x_i,\, x_{-i},\, G). \tag{2}$$

It is clear from equation (2) that changes in the quantity of x_i supplied will have an impact on the revenue of x_{-i} software. In effect, an increase in x_i is likely to divert some of the existing audio software market from x_{-i} to x_i. In the literature on monopolistic competition this is often referred to as 'cannibalization' or 'business stealing effects' [see Beath and Katsoulacos (1991) for a survey]. In addition, it is also plausible that the release of a particular title may generate multiplier effects, to the extent that it may increase the sales of some other titles.[1] Such effects are likely to generate a response from other firms, so that the profit function for x_i is more generally defined as

$$\pi_i = \pi_i(x). \tag{3}$$

Thus, the gross profit function for a record company, f, that sells a selection of titles $x_{j \ldots k}$ (a subset of $x_{i \ldots z}$), is

$$\pi_f = \sum_{j=1}^{k} \pi_j(x). \tag{4}$$

Firm f's optimal level of x_j is determined by the first order condition

$$\frac{\delta \pi_f}{\delta x_j} = \sum_{j=1}^{k} \frac{\delta \pi_j}{\delta x} \frac{\delta x}{\delta x_j} = 0. \tag{5}$$

Equation (5) illustrates that record company f's decision to sell an audio software title will depend on how much of its own existing business x_j will either 'steal' or enhance, and how other companies will respond to the sale of x_j. Therefore, this immediately implies that record companies would tend to hire artists who have minimal internal (to the record company) cannibalization effects and wherever possible, internal multiplier effects.

In practice record companies are unsure of the actual demand for a software title prior to its release. They are also uncertain of the exact effect x_i will have on other software titles and the response of other companies. Therefore, they can only estimate their profit function i.e. $E(\pi)$. Further, record companies are also obliged to pay artist royalties. As is generally the case, we assume they pay an advance on royalties g_i. We denote artist royalties on record sales as u_i $(0 \leq u_i \leq 1)$ per unit of x_i. Thus we can rewrite record company f's gross profit function as an expected net profit function.

$$E(\pi_f) = \sum_{j=1}^{k} E(\pi_j(x,\, u_j,\, g_j)). \tag{6}$$

Thus, the expected income (Y_e) of a representative composer who produces x_i is either

$$Y_e = u_i E_i(p_i) x_i^*; \quad \text{if} \quad u_i E(p_i) x_i^* > g_i, \tag{7a}$$

or

$$Y_e = g_i; \quad \text{if} \quad u_i E(p_i) x_i^* < g_i, \tag{7b}$$

where x_i^* is the record company's planned output level of x_i and where $E_i(p_i)$ is the composer's estimate of the price function of x_i. If, on the other hand, the composer sets up her own record company to sell x_i, then her expected income is

$$Y_e = E(p_i)x_i - c_i(x_i). \tag{8}$$

Optimal x_i^* is determined by the first order condition

$$\frac{\partial Y}{\partial x_i} = E(p_i) + \frac{\partial E(p_i)}{\partial x_i} x_i^* - \frac{\partial c}{\partial x_i} = 0. \tag{9}$$

The individual is constrained by capital if $c(x_i^*) > Z_i$ and unconstrained if $c(x_i^*) \leq Z_i$ where Z_i is defined as the amount of financial capital to which the individual has access.

Assuming that utility is exclusively a function of income, and allowing for risk aversion, a composer will set-up a record company if the utility derived from equation (8) is greater than that of the relevant equation (7). Therefore, we can identify the main determinants of a creative musician's decision to either sign a record contract or set up her own company as:

1. *Asymmetry in the estimation of the value of music's commercial viability:* i.e. $E(p_i)_{\text{record company}} < E(p_i)_{\text{composer}}$. This can occur for two reasons. Firstly, the record company may be more pessimistic of the market demand for x_i than the composer. In an extreme, but frequent case this implies that a composer is not offered a contract i.e. $g_i = 0$ and $u_i = 0$. Secondly, if the company is willing to offer a contract the optimal level of x_i^* produced is likely to be low in the artist's view, as are the royalties rates and advances offered to the composer. If these asymmetries are significant they may incite a composer to set up her own record company.
2. *Business stealing and multiplier effects:* In the case of a composer who is likely to generate internal business stealing effects for a particular record company, the said record company is unlikely to hire the artist if the expected net gain is negative. This is most likely to occur when the record company feels that the artist will not secure a record contract with another company and/or is also unlikely to present a credible threat through the potential creation of a new company. The former scenario is propagated in cases where the composer presents business stealing effects for other incumbent record companies and/or when her commercial worth is unlikely to be recognised by such firms. The latter circumstance is likely to arise when the composer either does not have the financial or human resources to set-up a credible record company and/or even if she does so, first mover advantages imply that such a company would not create a significant threat to incumbent firms. In situations where an artist presents a threat of business stealing effects to a particular firm and the above conditions do not hold it may be optimal for the said company to 'lock' the artist into a contract, thereby eliminating the threat of lost business.

   On the other hand, composers who generate net multiplier effects for particular record companies are highly likely to accept a record contract as it is possible for a record company to offer a royalty and advance deal which also rewards composers for these positive externalities. It is difficult to imagine new small firms being in a similar position to capture the positive externalities generated by multiplier effects.
3. *Risk:* Income in (8) involves a greater risk than either (7a) or (7b). Hence risk averse composers may be more likely to sign record contracts, while less risk averse composers may be stimulated to set up their own record company with the expectation of greater profits if the record sales are successful.
4. *Capital constraint:* In equation (9) the optimal x_i^* may not be attainable if the composer does not have access to sufficient capital. Since corporate record companies would not usually be expected to face a capital constraint, a composer may maximise income by signing a record contract.
5. *First mover advantages:* It may be the case that the corporate sector has economies of scale and/or first mover learning advantages. In such cases releasing a record through an established company might maximise the

composer's income through a higher $E(p_i)$ and/or lower $c(x_i)$.

6. *Record company profits:* A composer may aspire to earn the residual income that usually accrues to a record company in the form of profits and specific factor incomes. In this manner she might set-up a company to earn an income over and above that available through music royalties.

3. Section II: Data description

The data are taken from the author's D.Phil thesis 'An Economic Analysis of Enterprise in the Music Industry'. The author conducted a postal questionnaire survey of 1,065 Irish based members of the Performing Right Society (PRS).[2] Except for five members, these comprise of composers who are under the jurisdiction of the Irish Music Rights Organisation, which at the time was a subsidiary of the PRS. The survey was conducted from January to March 1993. Due to deaths, change of address and musicians on tour, the effective sample was estimated to have been 897. With 248 replies, the response rate amounted to 28 per cent.[3]

The questionnaire is divided into 16 primary questions. Some of these divide into sub-sections according to 'yes' and 'no' replies to the primary question. The questionnaire separates composers into the following genres of music: classical, commissioned, jingles, chart-based music, non-chart traditional music and others. Of the sample, a total of 73 per cent were charts composers, 12 per cent were non-chart traditional composers, 5 per cent were classical, 6 per cent were commissioned/jingles writers and 8 per cent did not fall into these categories (e.g. church music). The questionnaire focuses on four main issues: (a) the decision to form, or not to form, a record company (b) the importance of pecuniary motivation as a stimulus to both enter the industry and write music (c) how skills were acquired and (d) endogeneity within the industry e.g. role models, risk aversion etc.

In the logit analysis of section three we use a range of variables extracted from these questions to undertake a general to specific analysis of the determinants of new small firm formation. However, prior to this we examine the (previously unpublished) replies to questions 3 and 4 which deal with a composer's decision to release records.

A composer may release a record through her own record company or through a company owned by a third party. Many artists are believed to initially release music on their own record label (to demonstrate its commercial potential) in order to secure a satisfactory record contract later on. As a result, the examination of this decision-making process necessitates a distinction between a composer's historical choice and future aspirations. For this reason, composers were questioned on this issue on two occasions. Question 3, refers to historical choices and question 4 relates to future plans. Since questions 3 and 4 are so similar in content and structure, the questionnaire contains an advance warning of this characteristic so that the respondent will not neglect question 4.[4] For the most part, respondents understood the division between question 3 and question 4: all respondents answered question 3 while only 4 per cent did not answer question 4.

The replies to questions 3 and 4 are presented in Tables I to IV. Tables I and II portray the replies of respondents who respectively 'did in the past'

TABLE I

Data without brackets apply to the question: "If you did set up your own company, which of the following were influential in encouraging this?". Data in parenthesis relate to the question: "If you did set up your own company, which of the following was the *most* important factor in encouraging this". (Rounded %'s) N/A = not answered, OBS = observations

	Charts	Trad	Total
A	80 (21)	50 (13)	76 (19)
B	38 (5)	25 (0)	36 (4)
C	30 (0)	0 (0)	26 (1)
D	34 (2)	13 (0)	32 (1)
E	59 (8)	38 (13)	57 (8)
F	75 (46)	63 (50)	74 (44)
G	20 (5)	25 (25)	21 (8)
N/A	0 (13)	0 (0)	0 (13)
# OBS	61 (61)	8 (8)	72 (72)

(A) More control over music.
(B) Higher artist royalties.
(C) Earn higher income (over and above artist royalties) if the records are hits.
(D) More flexible advertising and marketing.
(E) Prefer being independent/answerable to nobody/your own boss.
(F) Existing record companies are unwilling to take the risk involved in releasing your records – you feel they did not perceive the full commercial potential of your music.
(G) Other reason(s).

TABLE II

Data without brackets refer to the question: "If you intend to set up your own company, which of the following are influential in encouraging this?". Data in parenthesis refer to the question: "If you intend to set up your own company, which of the following is the *most* important factor in encouraging this". (Rounded %'s) N/A = not answered, OBS = observations

	Charts	Trad	Total
A	65 (20)	46 (15)	64 (17)
B	35 (4)	31 (0)	35 (3)
C	41 (4)	8 (0)	36 (4)
D	29 (0)	8 (0)	25 (0)
E	57 (16)	62 (15)	58 (18)
F	51 (22)	62 (31)	50 (25)
G	16 (6)	31 (23)	21 (10)
N/A	0 (27)	0 (15)	0 (24)
# OBS	49 (49)	13 (13)	72 (72)

(A) More control over music.
(B) Higher artist royalties.
(C) Earn higher income (over and above artist royalties) if the records are hits.
(D) More flexible advertising and marketing.
(E) Prefer being independent/answerable to nobody/your own boss.
(F) Existing record companies are unwilling to take the risk involved in releasing your records – you feel they did not perceive the full commercial potential of your music.
(G) Other reason(s).

and 'aspires to in the future' set-up a record company. In each instance respondents were asked to tick both 'all factors' and the 'most important factor' which influenced their choice to set-up a record company. In Tables I and II the data inside the brackets represent the distribution of replies when the respondent was asked to identify the 'most important factor'. Correspondingly, the data without brackets represents replies where respondents were asked to identify 'all influential factors'. The replies of respondents who either did not, or did not aspire to, set-up their own record company are presented in Tables III and IV respectively. The replies are portrayed in the same format as Tables I and II in terms of the distinction between questions requesting identification of 'all influential factors' and those which requested the identification of 'the most important factor'.

The data in Table I reveal that composers who set-up a record company in the past mainly did so because of 'push' factors. Most composers appear to have been pushed into firm creation by the lack of a record contract with an existing record company. A total of 74 per cent of composers identified this as an influential factor and 44 per cent identified it as the most important factor influencing their decision to set-up a record company. To a lesser extent the data also reveals that a desire to have 'more control over music' and to be 'independent/your own boss' appear to be significant 'pull' factors into firm formation. Furthermore, the data in Table II reveal that these three factors also appear to be the main determinants of the cohort of composers who aspire to set-up a record company in the future. It is notable, however, that the importance attached to

TABLE III

Data without brackets relate to the question: "If you did not set up your own company, which of the following were influential in deterring you?". Data in parenthesis refer to the question: "If you did not set up your own company, which of the following was the *most* important factor in deterring you". (Rounded %'s) N/A = not answered, OBS = observations

	Charts	Trad	Total
A	50 (18)	59 (12)	49 (16)
B	37 (5)	65 (12)	40 (6)
C	50 (11)	47 (12)	48 (11)
D	23 (10)	35 (0)	27 (8)
E	53 (13)	88 (29)	58 (16)
F	32 (9)	35 (6)	32 (8)
G	12 (1)	24 (0)	13 (2)
H	36 (17)	59 (24)	38 (18)
I	2 (2)	29 (0)	7 (2)
J	5 (2)	6 (0)	6 (2)
N/A	0 (13)	0 (6)	1 (12)
# OBS	94 (94)	17 (17)	122 (122)

(A) Unable to raise enough financial capital to set-up a record company.
(B) Better management expertise in an established record company.
(C) Major record companies have more marketing clout.
(D) Unwilling to take the financial risk associated with releasing a record.
(E) Distribution of records is more efficiently executed by large established record companies.
(F) You do not have enough expertise to run a record company.
(G) You do not have relevant education to set-up a record company.
(H) You were offered a financial incentive/advance by an established record label.
(I) Technical and artistic resources are superior in a major record label.
(J) Other reason(s).

TABLE IV

Data without brackets refer to the question: "If you do not intend to set up your own company, which of the following are influential in deterring you?". Data in parenthesis refer to the question: "If you do not intend to set up your own company, which of the following is the *most* important factor in deterring you". (Rounded %'s) N/A = not answered, OBS = observations

	Charts	Trad	Total
A	55 (25)	60 (13)	55 (23)
B	37 (5)	47 (7)	40 (5)
C	55 (13)	67 (20)	55 (13)
D	33 (11)	33 (0)	33 (10)
E	55 (12)	80 (33)	59 (14)
F	34 (5)	27 (0)	35 (5)
G	5 (0)	7 (0)	8 (1)
H	15 (5)	20 (13)	14 (5)
I	17 (3)	27 (0)	20 (2)
J	3 (2)	0 (0)	4 (2)
N/A	0 (20)	0 (13)	1 (20)
# OBS	110 (110)	15 (15)	134 (133)

(A) Unable to raise enough financial capital to set-up a record company.
(B) Better management expertise in an established record company.
(C) Major record companies have more marketing clout.
(D) Unwilling to take the financial risk associated with releasing a record.
(E) Distribution of records is more efficiently executed by large established record companies.
(F) You do not have enough experience to run a record company.
(G) You do not have relevant education to set-up a record company.
(H) You were not offered a financial incentive/advance from an established record label.
(I) Technical and artistic resources are superior in a major record company.
(J) Other reason(s).

the acquisition of a record contract drops significantly as we move from past experience to future aspirations. This may be due to a learning effect where respondents who had record contracts in the past were disappointed with the management of their music by incumbent firms and hence aspired to set-up a company in the future. Indeed 43 per cent of the sample in Table II had not set-up a company in the past (i.e. were not in Table I) and only 25 per cent of these identified the lack of a record contract as the most important factor determining their aim to set-up a company in the future.

Turning to Table III it is clear that the factors deterring composers from starting-up a record company appear to be more evenly distributed across the reply options. However, an inspection of both the 'most important' and 'all influential' factor replies seem to indicate that four main influences dominate. These are a lack of venture capital, incumbent firms' distribution channels, incumbent firms' marketing expertise and the offer of a recording contract by a record company. When we move to Table IV, we find that a lack of venture capital, marketing expertise and distribution channels again appear to be important factors, while the attraction of a recording contract is reduced to a peripheral role (with only 5 per cent of respondents identifying it as the most important factor). Risk aversion also appears to be regarded as a more important deterrent in Table IV than in Table III.

In summary, the replies to questions 3 and 4 of the questionnaire seem to imply that push factors are more important as a stimulus to setting-up a record company while the belief that incumbent firms have first mover/economies of scale advantages seems to be the main pull factor enticing composers to accept record contracts. Therefore, the questionnaire results seem to indicate that the labour market for composers tends to push less commercially productive composers into the self-employed sector so that new firms are more likely to represent 'chaff' rather than 'seedcorn'. In addition, the significant drop in the importance attached to the offer of a record contract as we move from an investigation of past history to future aspirations may be tentative evidence to indicate that record companies 'hoard' composers with business stealing effects. This may warrant further research as a recent study by Burke (1995b) indicates that business stealing effects dominate multiplier effects in the British audio software market.

4. Section III: Logit analysis

To test the significance of the survey proportions in a more rigorous manner, we decided to estimate a logit equation of the potential factors that affect the probability of a composer choosing to start-up a record company. In conducting such an analysis it was not possible to use a dependent variable from question 3 iterated against independent variables from the same question. This was

due to the fact that the second part of question 3 divides the sample, allowing each group access to an exclusive set of options (this is also true for question 4). Therefore, by definition, a logit estimation would assign spurious significance to the group of replies available to 'yes' and 'no' respondents respectively. In order to avoid this outcome we decided to divide the sample into the 'yes' and 'no' respondents of question 3. In other words, we separated the sample into composers who had and had not set up a record company in the past. This generated two databases where the respondents in each respective group had access to the same variables in question 3. This characteristic thereby overcame the 'automatic significance' problem in the unified data set. We then proceeded to estimate the probability of a composer aspiring to set up a record company in the future for both data sets.

The estimation procedure is based on the intuition that the decision to set up a record company in the future is determined by factors that influenced the same decision in the past. This implies that the insignificance of an independent variable is due to the fact that either it does not play a major role in influencing this decision, or that the characteristics of a composer have changed over time so that the variable is no longer active. An example of the latter may be the composer's access to capital, which is likely to fluctuate over time.

The analysis involved a general to specific estimation process of the replies to the questionnaire (which were transformed into discrete variables). In general we chose replies which corresponded to the model of section 1, i.e factors affecting estimated income, human and financial capital variables and sociological factors usually associated with firm start-up. The independent variables included the options from question 3 (in both 'influential factors' and 'most important factor' form) and all options from questions relating to: the composer's motivation by monetary reward, education, unemployment (this variable is comprised of composers who claimed to be collecting social welfare payments), risk-taking, composer genre, role models, number of years in the industry and finally, whether the composer is a music innovator or imitator (i.e. writes music which is, or is becoming, popular).

The estimated specific form for the cohort of composers who had set up a record company in the past is presented in Table V as equation 2. The results indicate that the desire to control the use of one's own music is an important stimulus to record company formation. The results also find a significant negative relationship between composers who set up a record company in the past in the hope of reaping financial rewards over and above music royalties, and those composers who had future plans to start-up a record company. This result seems to indicate a certain naivety on behalf of some composers: musicians whose profit expectations from starting up a record company in the past proved to be overly optimistic, were unlikely to aspire to start up a record company in the future. This interpretation is also supported by the results of questions 3 and 4, where first mover advantages appeared to be the main deterrent from starting up a record company.

TABLE V

Logit Dependent Variable: Composers who plan to set-up a record company in the future and who had previously set-up a record company

Variables	1	2
Control of music	1.521 (1.94)***	1.171 (1.74)***
Higher profits	–1.403 (–2.16)**	–1.174 (–2.01)**
Unemployed	–0.935 (–1.511)	
Constant	–0.019 (–0.03)	–0.009 (–0.02)
Pseudo R^2	0.11	0.07
CHI^2	8.58**	5.99**
# OBS	58	64

* Significant at the 1% level.
** Significant at the 5% level.
*** Significant at the 10% level.

The 'unemployment/social welfare recipient' factor was the last variable to be deleted in the general to specific estimation, and was found to have a negative coefficient which might indicate that it is capturing a deficiency in financial and/or human capital.

Table VI presents the results of the general to specific analysis of composers who did not set up a record company in the past. In this sample a significant proportion of composers claimed to be earning an income from music composition and performance which was above their reservation

TABLE VI
Logit Dependent Variable: Composers who plan to set-up a record company in the future and who previously had not set-up a record company

Variables	1	2
Charts musician	–0.815 (–2.14)**	–1.377 (–1.93)***
Managerial expertise	–0.970 (–2.71)*	–1.395 (–2.17)**
Risk averse	–0.870 (–2.21)**	–1.536 (–1.96)***
Artistic resources	–1.076 (–1.78)***	–2.004 (1.62)
Record contract (MIF)	–0.930 (–1.92)***	
Unemployed		1.215 (1.83)***
Constant	0.731 (1.70)***	0.555 (0.75)
Pseudo R^2	0.17	0.16
CHI^2	18.5*	14.0**
# OBS	96	84

* Significant at the 1% level.
** Significant at the 5% level.
*** Significant at the 10% level.
MIF = A 'Most Important Factor' response variable.

level. Hence these musicians would not have had the opportunity to answer the third part of question 7 which asked composers how they acquired supplemental income to attain their reservation level. This implies that the inclusion of the 'unemployment/social welfare recipient' variable (which is extracted from replies to the third part of question 7) generates a significant proportion of missing observations, and hence reduces the sample size by approximately 13 per cent. Therefore, we conducted two general to specific estimations, the first excluded 'unemployment' and the second included 'unemployment'. The results are presented in Table VI and indicate that the inclusion of the 'unemployment' variable does not affect the significance of most of the specific variables.

Both equations find the probability of firm start-up to be negatively correlated with: the belief that managerial expertise is superior among established record companies, the desire to avoid financial risk, and whether the composer writes chart music. In equation 2 'unemployment/social welfare recipient' is found to positively increase the likelihood of a composer starting up a record company. The significance of the 'unemployment/social welfare recipient' variable occurs at the expense of causing the negative coefficient on the 'record contract' variable to become insignificant. This supports the notion that the significance of the 'unemployment' variable is accounting for the fact that musicians who receive social welfare payments have low commercial artistic ability – in the absence of an offer of a record contract they are forced to set-up their own company. The reduction in the sample size by 13 per cent also seems to push the significance of the 'artistic resources are superior in established record companies' view just marginally below the 10 per cent significance threshold.

Artistic or entrepreneurial ability obviously plays a role in the significance of the negative coefficient on the 'offer of a record contract' variable. Moreover, a similar interpretation is also likely for the negative coefficient on the charts variable. A possible explanation here is that, by definition, charts composers write music intended for the audio software market. Other composers' compositions are less suited to this market. Thus, record companies would be more likely to offer a contract to a charts composer than any other type of composer. This would have the effect of drawing charts composers into the corporate sector and pushing non-charts composers into the self employment sector; hence the negative coefficient.

The significance of the 'managerial expertise' variable is consistent with the negative coefficient found on the 'own company profit expectations' variable in Table V. It supports the hypothesis that incumbent record companies have a first mover advantage over entrants.

These results seem to indicate that most composers would prefer to secure a record contract rather than set up their own record company, as incumbent record companies are perceived as having first mover advantages. Those composers who set up a record company appear to do so because they are not offered a recording contract or because they want to retain managerial control over their music. Composers who start record companies in expectation of greater profits than those available in the corporate sector seem to revise this view to the extent that they opt for a record contract in the future.

The results indicate that access to capital, education, role models, music industry experience, music innovator or imitator are not primary determinants of new record company formation when one controls for other influences. The fact that

most composers appear to want record contracts and that 'push' factors seem to be more important in the case of musicians who set-up their own company, tend to imply that record companies created by composers are, in the phraseology of Foreman-Peck (1985), likely to be the 'chaff' of existing incumbents rather than the 'seedcorn' of future industry.

5. Summary and conclusion

The paper examined new record company formation by composers. In particular, it addressed the decision by composers to release a record i.e. either to form a licensing agreement with existing record companies or to start-up their own company. In so doing, the research entailed the exposition of a simple model describing the relative income available to composers, and the collection and analysis of new data on the behaviour of musicians in the intermediate market for music. Through an examination of economic and sociological factors, the research found that musicians regard incumbent record companies to have a first mover advantage and generally aspire to secure a record contract than to set-up their own company. Composers who start-up their own company usually do so because of 'push' rather than 'pull' factors so that such new firm formation is mainly accounted for by artistic enterprise rejected by incumbent firms. In this manner, new firm formation by composers does not appear to represent the seeds of future industrial growth. In addition, the paper also generated theoretical support and some tentative empirical evidence to suggest that in an audio software market which exhibits 'business stealing effects', record companies may not always maximise the *individual* profit function of each composer. Thus, further research would seem warranted in this area as an affirmation of this proposition would in certain instances provide an economic justification for the termination of contractual agreements between composers and record companies.

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Notes

[1] This may occur at the early stages of the diffusion of a particular genre of music.

[2] Membership of the PRS is made up of music composers and publishers who have had a relatively minimal level of commercial success with their music (e.g. three works broadcast by radio).

[3] A total of 84% of the sample indicated that they performed their own music (the comparable figure for 'charts' musicians was 92%) so that the sample is to some extent representative of the behaviour of performers.

[4] "Please note: Question 3 and 4 are very similar in content: question 3 deals with past experience and question 4 is concerned with future plans. Please answer both questions."

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