Losing the Label:

Exploring A New Model for Emerging Musical Artists

by

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Abstract

After an examination of a traditional recording contract model, an updated framework is developed such that the recording artist may take advantage of current technology enabling them to perform certain actions formerly reserved to the label. The updated framework provides that emerging technology will create the ability for some new musical groups to become popular and create equal levels of revenue without a recording label. A formula to weigh the decision whether or not to use a label is developed.

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Introduction

The economic frameworks used to analyze the music industry have become more complicated as the industry has changed; due to technological changes, the scope of today's market is in drastic need of an update. Because of huge shifts in technology and capacity, the model must be re-analyzed in order to best understand the optimal decisions for bands. The general market structure is five major labels and a large number of independent, or 'indie', labels; these form two interdependent markets that interact with one another. The business venture of the label is to take on levels of risk that results in an optimal reward if the band is successful. The number of risks taken is a product of the compensation packages offered to the artists, as well as the percentage of profit gathered for each artist's contract. Naturally, the large firms, the 'majors', enjoy a lower level of risk: this is due to the high levels of profit, and due to the self-selecting nature of the popular musicians they sign. Independent labels have much higher risk level, and due to this offer much less lucrative offers for new bands.

These risk profiles show the two primary markets: the 'major' market, consisting of all bands above a certain success threshold and the 'indie' market, the lower tier of bands with less success (fan base and profitability) and more risk. The indie market, naturally, includes 'entrant' bands- bands just forming and creating music. These bands will be the focus of the research.

Traditionally, there was a large gap between the indie market and the major market, with few bands ever 'crossing over'. However, this disconnect has been mitigated some by a *Long Tail* of music growth. Considering the old restricting capacity dictated by scale economies, widespread access to niche goods was small. Now, the internet as link between the seller and the buyer, allows smaller popularity categories and niche bands to be successful; in years before music was digital, these bands had a much more difficult time creating a fan base. Approximately one fourth of music sales are now digital[1]. This change can then be applied to 'indie' music- the transfer capacity of the internet, and even the effect of illegal downloading, have spillover effects into music sharing and popularity creation for what would formerly be unsuccessful bands.

In today's market, where indie labels fail to take risks, the internet can be used to remedy the disconnect. A number of music distribution technologies have been developed, some of the most popular of which being: MySpace Music, Purevolume, Pandora, and Last.fm. These are all free services that allow the user to access, upload, and recommend songs. These have become extremely popular and are now perfecting a music recommendation tool that allows users to find new music they like based on previous preferences. Services

[1] IFPI. "New report shows how much record companies are 'investing in music.'" IFPI.org. 9 Mar, 2010.

like these have afforded the ability for artists to become popular without the traditional marketing costs necessary.

The Digital Creation Process

Formerly, bands needed to pay for studio time if they didn't have a label to pay for them. This was a significant cost, and often times they would be deterred as studio prices are quite high. The average studio cost is about $75/hr for time, and additional $100/hr for a producer. Given that a song usually takes between 10 and 30 hours to record, for a full length LP would have an estimated cost of about $31,000 for a full-length studio album of twelve songs[2].

Bands, thus, would create four track demos, as opposed to full length LPs because of the high cost of production. They then send these demos to record labels, hoping that one would sign them such that they could gain more studio time and eventually create revenue. The estimated cost of a professional quality demo is $10,000. The key distinction today is that this traditionally fixed cost is now becoming much lower.

Computer applications like Logic Pro ($500 USD) or Ableton Live ($800 USD) and a professional mixer ($200) allow for unlimited studio time[3]. These programs are highly capable, and when the right capacity is put forth, can be used exactly like an analog recording system, with flawless bandwidth. For an incredibly low fixed cost of around $1000 one can gain *unlimited* studio time, dictated only by the band's free time. Bands

[2] "Recording and Releasing Your Own Album." Guitarnoise.com. *Based on estimates.*

[3] Musician's Friend. Musiciansfriend.com. *Actual Retail Prices.*

needn't worry about these high costs again- and if they do want the luxury of a recording studio, they can wait until they make enough money that the fixed costs are nominal.

The implications of the lower costs of production is a shift away from low-cost studios such that a studio will be reserved only for artists with enough revenue to use the higher-end studios. This also means that the job of audio producer will be a much more difficult industry to breach.

Changing Costs of Distribution and Promotion

The second part of the music production process comes after the album is produced: distribution and marketing. Traditionally, labels handled everything- tours, production, radio play, etc. Today, the radio is a dying medium; internet radio and streaming are rapidly growing. Touring is becoming much more manageable for small bands due to growth in booking agencies, and marketing is moving online. Means to become popular are becoming increasingly digital, and the costs of marketing are falling proportionately. More than one fourth of record companies profit was due to digital sales in 2009, and it will continue to grow in this fashion[4]. As promotional costs fall, the value-added by the label falls as well.

Developing a Modern Model

The purpose of updating the model is to prove that it may be less costly and more beneficial for a startup band to self-produce, self-promote, and self-distribute than to sign with a label. Clemons (2002) stated that the music industry was a "newly-vulnerable"

[4] IFPI Annual Report 2009. www.ifpi.org.

market due to the lowering barriers to entry; the changed opportunities for bands to occupy roles formerly reserved to labels means that the market is no longer classifiable as "newly-vulnerable" but instead should be classified as "in flux."[5]

The model will compare the economics of the recording contract with an independent label to a model that changes when the band takes on different responsibilities. This shift is based on three variables: the cost of self-production, the cost of self-promotion, and the efficiency loss in creation time, booking, and self-management.

The new model will be compared with the traditional model, which is also theoretically developed based on empirics. The traditional recording contract model is based on: cost to label, royalty to band, cost of promotion and production, and economies of scale by risk mitigation and cross-subsidization.

Modeling and Estimated Values

The label saves costs in several areas: risk mitigation, networking, and know-how. They are able to mitigate start-up risk due to economies of scale, leverage relationships in order to ensure radio play and concert bookings, and use their experience to help weigh important decisions for the band that they would have faced in the past with other groups. These values will be the critical determinants of the value of a label, and will be the focus of the empirical compilation. The levels of promotional and distributional capacity are based on the premise that a label has a more effective model than any do-it-yourself band.

Hypothesis

[5] Clemons, Eric, et al. "Newly Vulnerable Markets in an Age of Pure Information Products." Wharton School of Business, University of Pennsylvania. 2002.

Our hypothesis is that it is actually more effective for a start-up band to self-produce. It also may be more profitable self-promote as opposed to signing with a recording label due to the nature of recording contracts, the role of the label, and the opportunities of the band. However, one should also factor in the importance of a third-party 'manager' such that the band may subcontract one individual to partake in certain activities so that they can maximize their time for creativity and minimize cost. At the current moment, due to constantly changing costs and the nature of the industry, we believe that the best way to estimate profitability is a case-by-case basis.

Research and Development of the Model

Digital Rise and Analog Decline

Zentner (2003) provides that the effect of music downloads lowers sales by 30%[6]. Using an empirical method that estimated the amount of broadband users, this rate is sure to have risen since the publication of this paper.

It is clear that the increasing rate of access to music using the internet means a necessary change in distribution models. In 2008, over 1 billion songs were sold online[7]. However, the decline in music sales is not one-for-one with the huge shift to digital sales-- CD sales have declined every year since 2000.

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[6] Zentner, Alejandro. "Measuring the Effect of Music Downloads on Music Purchase." University of Chicago, 2003.

[7] Apple iTunes Store.

Coupling the decline in album sales, we also have seen a huge shift in adoption tendencies. The one billion songs sold online are a much larger variety than the narrower volumes per artist in previous decades. This means that though the sales rates have dropped, a wider overall level of access has occurred. This means that the value of "super stardom" is now relative. Pop music is still the largest breadwinner by far- but indie genres are gaining leverage.

Moreover, promotion has moved to a social experience. NPD Group reported that nearly 19% of music-purchasers reported finding music via social networking sites and the adoption rates of recommendation services like Pandora grew more than double.[8]

Definitions, Assumptions and Extensions

The traditional model was depicted by Bockstedt et al (2006) as follows[9]:

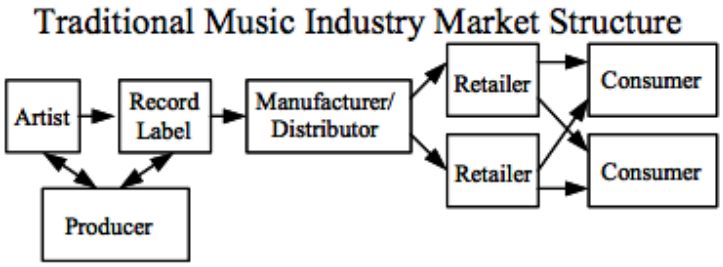

Figure 1

[8] *NPD Digital Music Study.* NPD Group Inc. 2009.

[9] Bockstedt, Jesse, et al. "The Move to Online Music Distribution." Carlson School of Management, University of Minnesota. 2004.

In the above schema, it shows that the artist, label, and producer work to create an album before passing it to a manufacturer, and onto a retailer. The digital shift has changed this schema in multiple ways.

Research on traditional models provides that artists typically receive 8-25% of royalties on a given song on a given album[10]. We can take the baseline rate, 10%, *(t1)* as the payable rate to an unknown, entry-level band. We will assume that at level *(t2)*, median popularity, a renegotiated rate of 15% applies, and at level *(t3)*, stardom, a rate of 25% applies.

Furthermore, we can infer the baseline revenue from a song given the most popular online distribution model, iTunes, is approximately $1.00.

On the most basic level, this proves that the approximate revenue per song for an entry-level indie band when signed with a record label is $.10/song. This would be compared to virtually a full $1/song when 100% royalties are kept. Even the band at *(t3)* makes only about $.25 per song. Services like *TuneCore* allow you to upload songs to the iTunes music store and keep all royalties at an unbelievably low rate of $1/song[11]. This means the distribution cost is a startling $12/album (approximately), compared with the traditional forfeit of $.90 cents of each dollar of revenue for this distributional capacity.

Bockstedt et al. (2006) also accounted for the fact that the digital shift would mean a potential change in the supply chain:

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[10] Clemons et al.

[11] TuneCore. www.tunecore.com. *Services Schedule.*

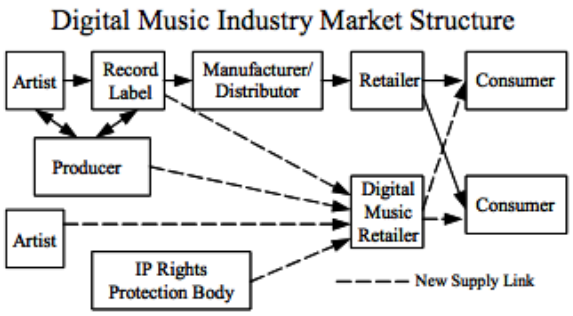

Figure 2

Bockstedt noted that an *established* artist could go straight to the digital music retailer, a do-it-yourself example. This paper will analyze the optimum situation for a new player; it may in fact resemble that of an established artist, or it may be an interweaving of several of the available players in the market.

We can assume, based on this model, that the promotional value provided by a label is one of the premier reasons they are utilized: though an artist can now achieve a virtual 100% revenue intake from song sales (seen in the chart above as the direct arrow), the population that will seek their product will be much smaller without the same promotional cost bared by a label.

Promotional value can be defined as access to retail outlets, publicity forums, gatekeepers, and advertising. Traditionally these capacities were only accessible using a label (see the traditional diagram). The internet has created a platform for less costly promotion; however, the successfulness of the less costly option will be analyzed based on a value as explained above. The estimated promotional level should be analyzed analogous to a given royalty rate such that a band can estimate the amount of promotion necessary for a given level of royalty to apply.

The Classical Recording Contract Model

As previously noted, production costs and promotion costs are two entirely separate organisms; for this reason, it would be imprudent to simply compare a new production model with the currently accepted model of a recording contract. Bowmaker (2005) noted that in a recording contract, available revenue is based on *risk-reward* due to the levels of symmetrical ignorance given that music is an experience good[12]. Therefore, it is imperative to determine the equilibrium outcome for several stages along the continuum while still bargaining with a label.

The costs for each stage of production are completely *sunk* in this model. Due to the levels of asymmetry in information, the label has the buying power necessary to invest these sunk costs based on the potential return from the initial investment.[13]

Walk-through and Definitions

Due to the division of risk, the artist, especially the first-time band, loses almost all buying power. This is because the risk levels with a new artist are much higher than with a repeat artist. When buying power is forfeited by the artist, the following agreement process takes place:

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[12] Bowmaker, Simon, et al. "The Economics of Rock and Roll." *Economics Uncut*. Edward Elgar Publishing, Northampton, MA: 2005.

[13] In this situation, an *option contract* may exist, in which a recording company would option an album by paying the costs for production, but make no promises of actual use.

On the agreement of a contract, a label will option a series of albums with a recording artist such that they agree to subsidize the costs of production and promotion as well as provide some of the expected earnings from the album, easier referred to as an ***advance****. Across the series of albums agreed upon, the band will receive a stipulated level of royalties from album sales). If at any point, an advance exceeds the amount of revenue from one album, the label may* ***cross-subsidize*** *by transferring the debt of the advance to future income. In fact, the label will often stipulate that the label must recoup an advance before any royalty is earned by a band.*

A label also holds the option to release the album. If the label decides not to release, the advance is a sunk cost, and is forfeited to the cost of production; however, the label still will hold the rights to the master tape produced in the period. If the label decides to release, the contract agreement must be considered in which a fixed ***royalty rate*** *as well as a* ***future-production agreement*** *must be stipulated. In this regard, bands will lose all bargaining power upon premier release due to the intense level of lock-in that is required to release their first album. Contracts may stipulate certain thresholds at which the band may renegotiate certain terms; however, often, an album contract is a firm hold on the contracted band for a series of albums with no renegotiation possibility.*

Vogel (2001) noted that only one in every ten albums make profit[14]. Furthermore, Ordonez (2002) provided that of 6455 new major label albums in 2001, only 113 of

[14] Vogel, H.L. *Entertainment Industry Economics: A Guide for Financial Analysis*, 5[t] edn. New York: Cambridge University Press. 2001.

which were profitable[15]. These statistics are the basis for the underlying principle behind the basic recording contract model: a stiff paradigm based on a low level of overall profitability. Moreover, this provides the insight for a long-term lock-in: as so few artists are successful, it is critical that a label hold on to its winners.

A Note on Moral Hazard and Loss in Bargaining Power

The artist loses even more bargaining power in two primary capacities:

> *Royalties*: As the label holds the sales data for albums, exact understanding of proper payment is difficult to achieve. Though most modern contracts stipulate that audits are acceptable, they are quite costly. Moreover, the band must create the revenue to afford the advance before they begin recouping royalties- and this exact point is also imprecise.
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> *Promotion*: A label has a large incentive to promote the first album, as subsequent album sales are largely based on prior sales. However, for the final album in a contract, the label has very little incentive to promote the album as the band will regain their negotiating power as a popular album may diminish the label's capacity renegotiate.

The moral hazard of a recording contract thus creates a difficult decision for a recording artist; a multi-album contract will create several situations in which renegotiation capability would ultimately be the most profitable. Formerly, due to the relative

[15] Ordonez, Jennifer. "Sales of recorded music decline." *Wall Street Journal*, August 27, 2002.

inaccessibility into the market, bands vied for the few new places a recording label offered. They maximized their utility based on a utility function that weighted their preferences for revenue with their preferences for contract terms. This can very well change now that bands have new capacities.

Promotion

For the purposes of the model, we can assume that all artists are releasing their first album; therefore there are incentives for the record label to promote the band to the profit maximizing capacity based on a historical model. One can assume that the maximized level of promotion is equivalent across all indie labels at a level $P_{1,}$ and equivalent again across all major labels at a level P_2. The actual spending rates are irrelevant given the underlying assumption that the label has a given level of possible promotion expenditure that differs between the two markets.

The Classical Model and Unsigned Artists

The unsigned artist faces the most moral hazard given this traditional recording contract. In this circumstance, we will assume that the band is releasing their first album with an independent label, as very few artists are signed directly to a major label. We can, thus, relax a few assumptions to build a capable model for the upstart band and a smaller independent label.

In this situation, expected revenue is a function of royalty rate and the expected level of promotion that will create sales.

Contract Risk

Lock-In Cost and Moral Hazard Cost can be considered "Contract Risk." In the classical model, we can assume that contract risk is equal across all indie labels at the same level, and is again equal across all major labels.

The Classical Model

After a concert, Band X is approached by Label Y's talent scout and is asked for a copy of their four-track demo to give to a record label. The label listens to the demo, likes what they hear, and agrees they can gain some level of profit from Band X.

Determining the Advance

When deciding the amount of the advance, the label must take into account historical probability, the expected revenue, the current interest rate, and the expected cost. Because the band does not have a historical function, their expected revenue is a basic profit maximization, to an untrained band, the profit maximizing equation is:

$$\Pi = \text{Advance} - \text{Studio Costs} - \text{Contract Costs} + \text{Royalty \%}\ (\text{Future Revenue}).$$

Traditionally, the label will enact a multi-album contract as the band has the above profit maximizing level that the label can provide as less than the expected sunk cost.[16] The contract costs and studio costs are assumed to be virtually equal across all independent labels, so given the information the function the band will maximize is:

[16] Because the expected sunk cost is a function of revenue and cost based on historical success rates, the expected sunk cost is actually less than the amount of the advance.

$$E(U) = \text{Advance} + \text{Future Expected Revenue From Sales}$$

Murphy (2003) provided that when a royalty contract is entered, it is likely to stipulate that all royalty income payable to the band is post-recoup of the advance[17]. Therefore, *the expected utility function depends on the information gap between the label and the band*. If the band *is* aware that the entire sum of the advance must be recouped before any royalty earnings are made, then the function more likely resembles:

$$E(U) = E(R) - \text{Advance}$$

Once the contract is entered, the band will be forced to produce a set amount of albums unless the label decides that it is not worth the further cost to continue or decides that the future revenue is worth the current sunk costs. Because the label has the option of releasing or not releasing the tape, the promotional cost and the distributional cost are *ignored* in the advance agreement. These costs are borne as part of the contract risk by the band, as these costs are entirely private. Therefore, the advance risk is based on current interest rates and historical success rates such that:

$$P(\text{Advance}) = \text{interest rate } (\text{Expected Recoup Time})$$

When the advance is stipulated, the label will now offer to sign the band to a multi-album contract. The cost of the multi-album contract are the multiple advances that create a sunk-cost of lending and the risk in promotional cost; however, the advances are given

[17] Murphy, Todd M. "Crossroads: Modern Contract Dissatisfaction As Applied to Songwriters and Recording Contract Agreements." *The John Marshall Law Review*. 2002.

over a period in which the band has either created enough profit to cover the advance, or the label has decided to cross-subsidize the band's future advances if they have not created such a level of revenue. The revenue lost is either the gap between the cost and the revenue created, or the cost of lending money over the period necessary to recoup the advance.

Thus, the contract that is entered by Band X and Label Y is based on *imperfect information* (revenue data and promotion value). We can safely assume that Label Y has a threshold of experience for dealing with bands in a similar style as Band X and can therefore apply a profitability ratio based on historical data. We can assume that the label has incentive to promote the first album to the best of their ability in order to recoup their advance.

Because the label holds the full title to all works created based on the contract, they will consider a two-period model in which the first period is the negotiation of an advance, and the second period is the negotiation of an album and royalty agreement. It is fair to assume that all players in this game will maximize profit.

Profit Maximization

The profit maximizing equation for the band is:

$$\Pi = Advance\ Value + Royalty\ (Expected\ Revenue\ of\ Album\ Sales) - Contract\ Risk$$[18]

[18] We can assume that profit in this situation is higher than that of the no label option

Advance Value is the value of the "loan," not the value of the actual advance.

The profit maximizing equation for the label is:

$$\Pi = Royalty\ Rate\ (Revenue\ of\ Album\ Sales) - Expected\ Sunk\ Cost$$

We can break down sunk cost into a variable schematic for labels with historical data such that:

$$Expected\ Sunk\ Costs = p\ (Revenue > Costs)\ (Cost\ (interest\ x\ recoup\ time)) + 1 - p\ (R<C)\ (Advance)$$[19]

When the label decides to release the full-cut studio album, the costs then become:

$$C = Promotional\ Cost + Distributional\ Cost + r\ (Recoup\ Period)$$

Because the label receives total royalties until the cost of the advance is recouped, the cost of the advance is equivalent to the cost of lending, or, the real interest rate for the period at which it takes to recoup an advance.

Outcome

When both the band and the label maximize their utility based on an expected revenue function.

[19] For example: if p (R > C) historically = .10, Exp Sunk Cost = .1 (Exp Revenue – Cost) + .9 (Cost). We can assume all players are rational actors who will maximize expected utility.

$$U(X) = E(R_B) - \text{Contract Cost}$$

$$= E\,(R)(\text{Royalties}) + \text{Advance Value} - \text{Contract Cost}$$

The label will bargain for a royalty % level such that the historical revenue function (depending on genre, history, and label popularity) will be maximized.

At this point, a band may bargain for royalty percentage (or contract terms, which we can assume to be equivalent as they have low bargaining power) based on other offers or their relative level of information. It is likely that the label will dictate values and the band will be forced to accept them, as they have no bargaining power. Moreover, the label likely maximizes their utility based on an oligopoly model, and therefore will exploit the band to the best of their ability.

The outcome of this model is that the percentage of agreed royalty will be based on the amount of potential success the band can attain, estimating using the historical revenue function and past revenue probability functions. The overall result is based on a negotiation game of escalating royalty rates until the band and the label settle on a given rate and contract cost value. The oligopoly game, as shown below, shows that the label holds all the power. The equilibrium rests somewhere near the market rate at 10%.

	Sign with Label	Don't Sign With Label
Make Album	(80, 20) *(90, 10)*	(0, 5) *(0, 7.5)*
Don't	(-15, 5) *(-30, 7.5)*	(0,0) *(0,0)*

Figure 3

In the above game, the large numbers represent the game at levels of imperfect information and the small, italic numbers represent the game at a level of perfect information[20]. Because the band is still ultimately better off signing with the label, the levels of imperfect information are not going to change the outcome of the game- ultimately the band will sign with the label thinking they will receive 20 (utility), despite that they will only receive 10. Though the data is purely for example, the message is clear: imperfect information makes for a band to make a decision that follows a norm, but isn't necessarily the best-case decision.

The Self-Production Adjustment

Clemons et al. (2002) provided that it is easier for bands to undertake the capacities of labels when they have a given level of stardom. However, because of the lowering costs of production, it is now feasible to adjust the model such that even entry-level bands can adapt.

If we adjust the classical model such that the sunk cost of an album is now borne by a band as the cost of self-production is relatively low, the band will gain more bargaining power, creating a better overall outcome for both parties.[21]

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[20] The utilities for each level of the game are purely estimates based on typical royalty rates: every contract negotiation would be based on different bands weighing of given options and thereby no mathematical estimate would be accurate.

[21] There exists a negligible cost of post-production that a label will typically afford. One can assume that this cost is a sunk cost that is not considered in a revenue-maximizing situation.

Instead of being at the will of the price of the advance (which would largely go to production, and eventually be recouped by royalty), the band now has a finished product and are free to sell to a record label that will distribute and promote it for them. The model thus changes: the band's revenue function is no longer a function of receiving a loan and creating a product, but instead is based on the fact that they have already paid an "*entry*" cost of album production and now have the ability to use the product as buying power. These costs are considered sunk by the band, and they will maximize their revenue by not considering the costs of production that they incurred.

When the band's revenue maximizing constraint changes, they are free to maximize based on the best offer.

Wherein previous models' contracts were maximized based on revenue levels because it was assumed that all labels would offer similar contract risk terms, a band may now maximize utility based on the level of contract risk as well. The change in production schema means that bands are free to consider entire packages as opposed to losing bargaining power faced by high studio costs; instead of the decision being made based on an advance, it is now entirely based on promotion and distribution. In fact, we can ostensibly ignore the advance, as it is simply a derivative of the expected revenue.

Because the primary sunk costs are spent by the band, contract risk has now become variable insofar as moral hazard and lock-in risk are negotiable categories. The utility function for profit maximization for a band is:

$$U(X) = \%\text{Royalty}(E(R)) - \text{Contract Cost}$$

The utility for the label also changes:

U (Y) = %Royalty (E(R)) – Promo Cost – Distributional Cost

Because the label no longer has to worry about the expected losses of a studio cost, the expected rate of failure is now dictated purely by promotional and distributional loss.

Furthermore, the band now has the ability to "shop around" their album at multiple labels as opposed to already being locked-into one. This shift will cause labels to need to bargain for a band. This change in power structure will mean a broad shift over time for bands revenues.

Outcome

Because the band has produced their own album, they have now gained bargaining power on multiple levels. The ability to sign to any number of labels means that the band will able to bargain the best possible deal, as opposed to being locked-in to a deal that valued risk premiums more than the actual product itself. Naturally, the larger number of possible labels, the lower the "price" of signing will be, which will mean value-added for the band.

A similar negotiation will take place; however, because of the changed level of negotiations, the game is now a multi-step process involving three basic terms: *Royalty Level, Future Album Lock-In,* and *Promotional Levels*.

This situation may seem to be a loss for record companies, but is actually value-added for all parties on the whole: because record labels no longer need to afford the risk that a

band's album will be a failure and they will not want to release, the market should become more efficient.[22]

The Self-Production and Distribution Model

As shown above, when the band produces their own album they gain bargaining power in discussing contract cost and promotional cost. When a band chooses to self-distribute as well, they face a model that no longer involves a record label.

In previous years, this was impossible. Due to the large technological advance and the distributional capacity of the internet at virtually no cost, a model involving self-production and distribution is now feasible[23]. It is important to note that the distributional capacity of a record label should be weighed with the costs of using a label; though costs are much lower and easier to recoup, the probability of successful distribution is lower.

The band now faces a utility function that resembles the label's utility function:

$$U(X) = E(R) - \text{Production Cost} - \text{Distribution Cost}$$

Estimating Production and Distribution Cost

[22] The optimality exists insofar as there will never be a risk for bad album cost considering that labels, as maximizers, will *always* choose albums that they believe can be profitable.

[23] The distribution costs will fall even further then current levels as shifts become totally digital. At the current moment, the iTunes Store takes a level of about 30% royalties. Bockstedt et al. (2006)

The production costs were mentioned before- below they are estimated out based on creating a 12-song studio album with good production value and a given level of technical understanding.

Estimated Production Cost = Sequencing Program ($700) + Mastering Mixer ($500) = $1200

Distribution Cost = Promotion + Coverage + Booking Costs

Determining the Cost of Promotion

Promotion

The cost of promotion can be described as the price of creating awareness. One can empirically value awareness by estimating costs of several popular methods:

Blogosphere: Services like *Spread the Noise* charge a slated flat fee for sending messages to a list of thousands of bloggers as well as promotion on a blog that they run themselves.[24] For three timed messages, the cost is $250. Though this is a very low level of recognition, it's the first step in creating awareness at a low cost. Moreover, if a band uses smart SEO tactics and creates a dedicated group of followers, adoption is likely to increase.

Social Networking: Targeted *Facebook* and *Myspace* ads can be targeted to users- and can go from being relatively affordable to astronomical depending on the reach. However, they can target users that list specific genres. Moreover, these services can help

[24] *Spread the Noise*. www.spreadthenoise.com. *Rate Schedule.*

develop dedicated networks of followers. The important capacity is the word of mouth- by creating a fan page, all they need is a driver. Depending on how hot they get in the blog world, this will translate on facebook or myspace. As long as the band can continue to generate chatter, they will see repeat visitors. Facebook allows you to name your price- that will dictate your adoption ratio. A two-week long ad campaign with .65 cents per click could run you anywhere from $50 to $5,000 depending on the clicks.

Radio Coverage: Once a band has created a relatively popular persona using the internet, other mediums must be considered. There is a certain threshold that almost all bands will not be able to surpass if they cannot create influence outside of the blogosphere and social networks. To gain radio influence, someone has to have heard their song and liked it enough to want to play it. A corollary of radio coverage is music social networking. As stated before, more and more users seek music from social networks- and this could play a big role for radio in the future.

Touring: To get a tour, a band has two options: self-arrange, or hire a manager/booking agent. If a band is popular enough, they will likely be approached by a booking agent who will not charge a fee, but instead will recoup a percentage of their tour revenue. This is the *best-case* scenario. In a second-best model, they will arrange concert dates on their own by contacting venues in the cities in which they want to play. There is no distinct cost to this except for the time cost it will take. As self-represented bands have lower credibility due to the status quo in the environment, it may take much more effort to secure venues.

Adoption: A band that can create a following will ultimately be successful no matter the approach that they took. In different examples, this has been at the expense of contract cost with a label, and it has been done completely unilaterally. The costs associated with a unilateral approach can be broken down as *Awareness Cost*.

$$Awareness\ Cost = \text{Time Cost} + \text{Advertising Cost} + \text{Credibility Cost}$$

Because the band should be focusing on creating as much new music as possible, the time costs associated are quite high. As stated before, the advertising cost could be quite low, but this diminishes chances of success. Finally, the credibility cost is present, specifically when reaching out to fans and venues- as the status quo dictates that a good band needn't do so.

Because of all these costs, the band can spare this expense by looking to a booking agent/manager, who does not charge a discrete cost, but rather, a percentage of the band's touring income. .

The Self-Production and Booking Manager Model

When a band hires a manager/booking agent, which we can assume to be the same, they forfeit approximately 15% of income for the services provided by a manager[25]. Because there is no explicit salary, it is clear that the moral hazard in a manager's decision to begin with a band is the same as a label's- a risk level at which invested levels will not be recouped.

[25] Jordan, John. "Technology Evolution and the Music Industry's Business Model Crisis." *Cap Gemini Ernst and Young.* 2003.

The utility function for the band changes with the 15% loss effect that is mitigated by the adoption costs that they will not face. However, they must reach a certain plateau before approaching a manager is appropriate. In fact, often a band will be approached by a manager instead- this is because most managers do not want unsolicited approaches, as most bands are unsuccessful.

The utility function for the band becomes:

$$U(X) = E(R) - \text{Production Cost} - \text{Distribution Cost}$$ where

$$\text{Distribution Cost} = \text{Cost of Distribution} + \text{Cost of Promotion}$$

If a manager now handles promotion, the cost of promotion becomes the salary of the manager: .15 (R). This is still a royalty rate of 75% less than a label.[26]

Mathematically Estimating Promotion Levels

Assuming that a label can achieve a given level of promotion at P1, when examining the decision making process for a modern band, we must estimate the value at which the band can self-promote or contract a third party manager.

Already understanding that they will ultimately be more profitable by self-producing an album, the band undertakes this action for a sunk cost (of approximately $2-5 thousand).

[26] It is clear that for a given level of revenue, a band must decide an estimated added value of expected revenue.

After the months spent creating an album, the band is now ready to face the label decision. We can assume that the band is a rational-acting body that seeks to maximize its utility, which is ultimately a revenue function. Revenue, based on album sales and concert sales, is determined by a given level of awareness and a level of adoption. These are achieved by promotional and distributional costs.

So when we consider Band X who has a produced album can either enter a bargaining game with several labels searching for the best-expected revenue, or self-release.

```
Expected Revenue = (Awareness Level + Adoption Rate) x
                   Royalty Rate
```

We can assume that if a band without an album gets an equilibrium rate at 8%, the band can bargain for a rate that is at least *(interest rate x estimated recoup time)* higher. We'll estimate, conservatively, that they receive about 10%.

So, the band must understand how awareness level and adoption rate are created in order to best understand the best possible decision they can make.

Awareness Level is a product of promotional capacity and concert access. If the label can access P1 as a floor level of promotional expenditure, the most a band can access is some level less than that.

Adoption Rate is a harder metric to estimate because every band has a different experience with adopters. Some bands are incredibly popular in a short time, and enjoy considerable revenue without much difference in awareness levels; it is simply a product of word-of-mouth, genre, and the music market. Because the adoption rate is more difficult to infer, a band may be coaxed to move to a label that can offer historical success rather than simply believing that they will have an acceptable adoption rate.

IFPI reported that approximately 30% of revenues are spent on artist development and promotion[27]. Using this as a baseline metric, we can make the following extension:

```
Value to Band = Promotional Spending Level – Promotional
Self-Capacity Level
```

In theory, the above level should be proportional to the royalty rate; however because most data is unknown, it is impossible to estimate the correct royalty rate.

If we continue to assume that a manager, like a label, will spend 30% of royalties on promotion then we can look at the following formulae that use a baseline rate of royalty for a label, manager, and self-represented band:

```
Label Cost = .9 (Revenue)

Manager Cost = .15 (Revenue)
```

[27] IFPI. "New report shows how much record companies are 'investing in music.'" IFPI.org. 9 Mar, 2010.

With these levels of cost, the band can choose one of two options: sign with a label and receive up-front promotional expenditure, or sign with a manager and leverage any already received revenues and future-revenues for promotional expenditure. The myopic tendencies of bands may be the cause for the high royalty rates.

When we look at the utility maximizing function from a purchase perspective, we see:

Expected Band Revenue = Awareness Level x Adoption Rate x 1 - Royalty Rate

Label Promotional Level = X

For Indie Pop Artists, IFPI estimates X is about $200,000. We can use this estimate for a mathematical example, but a band should plug in this level in order to optimize.

Manager's Promotional Level = Current Disposable Revenue + .3 (.15 x Future Revenue)[28]

Label's Promotional Level = $200,000

Adoption Rate = Constant

Because adoption rate *should* remain the same no matter the level of promotion, as it is a result of the music itself, the profit-maximizing constraint becomes:

Max (Awareness Level x (1 - Royalty Rate))

[28] We are assuming here that a manager is doubling as a booking agent and therefore spends part of their revenue on band promotion. A pure manager would not actually spend any of their revenue on the band; in this scenario, one could simply use a booking agent's royalty rate instead of a manager's.

Label: Max (Awareness Level x .1)

Manager: Max (Awareness Level x .85)

When you set these equal to each other it shows that the Awareness Level must be at least 8.5X greater for the label to be more effective. Therefore, if you estimate the promotional level, like IFPI, at $200,000, then a manager should be spending at least $23,500 to be a better option than a label. However, as the promotional expenditure should be current disposable revenue created by the band, if the $23,500 has not been created, the band must judge their level of myopia in order to judge which option is more efficient.

Therefore if the manager (serving as booking agent) is spending 30% of royalty income on promotional expenditure, they should be making $23,500/.3 = $79,000. This, at 15% of the band's total revenue, means that the band is earning about $79,000/.15 = $522,000.

Let's assume that the band spends the .045% royalty revenue paid to the manager and allows the manager to keep his total royalty. The band's total income with a manager/booking agent is thus:

Band Revenue – Revenue (Royalty) – Revenue (Promotional Expenditure) = Total Net Income

$522,000 – $522000 (.15) – $522000 (.045) = **$420,210**

At an estimated cost of $10/album, the band should have sold 52,200 albums.

In the same scenario such that a label breaks even with a band paying their own promotional expenditure:

$$\$10/\text{Album} \times \#\ \text{of Albums} = \text{Total Revenue}\ (.1)$$

$$100\ (\#\ \text{Albums}) = \text{Total Revenue}$$

$$100\ (52200\ \text{Albums}) = \$5{,}220{,}000$$

This means the band must sell $5.2 million dollars worth of albums in order to break-even with the mere $520,000 they sold paying their own promotional costs. The difference between 52,000 albums and 520,000 albums means an entirely different popularity level. Moreover, with falling album sales, the likelihood of selling these types of numbers is less and less likely. The Shins, one of the world's most popular indie artists, only sold 120,000 copies of their third and most popular album, in its first week.[29]

It is important to note that the adoption rate is always critical. If, indeed, a label can alter an adoption rate, then the model changes. For the scope of this paper, I have assumed that adoption rate is constant despite promotional capacity because the music ultimately stays the same. This, admittedly, does ignore popularity transfer based on label equity. Certain labels, especially the majors, can create added popularity based on the equity they have already created, and this should be weighed in the utility decision.

[29] Billboard, Top 200. www.billboard.com

It is clear above that a band is using a manager or a booking agent- this is due to the efficiency loss. This can be weighed most efficiently as *Actual Revenue x Booking Agent Royalty*. As stated above, the estimated cost of a manager is fifteen percent of revenue.[30] This efficiency loss is the loss of time that a band could be creating additional revenue- like creating new music or playing concerts; therefore, as long as the band is using the hours that would spent on promotion and distribution on creation, they will likely be able to create more revenue in the long run. It is assumed that a band will invest in a manager, or else there will be a one-for-one loss in output based on loss in time; a manager can handle promotion and distribution, but can never be substituted in creation or concerts.

The optimization results are ambiguous as the levels of revenue are simply inferred based on the statistic that a pop artist is marketed for about $200,000 by a label. These results and other metrics help to infer an estimated level of revenue- but it are ultimately based on the idea that a band can either provide a level of disposable income to a manager, or hire a booking agent. In either situation, the band should decide whether signing with a label is worthwhile thusly:

```
Estimated Label Expenditure x (1 - Label Royalty Rate) >
    Estimated Self/Booking Agent Expenditure x (1 -
        Manager/Booking Agent Royalty Rate)
```

[30] Jordan, John.

It is clear that in any circumstance for a band, approaching a label with a finished album will *always* be a value-added for the band. This is because the ability to "shop around" will mean a natural increase bargaining power. Thus, the label decision should not consider an advance value if the band is a pure profit-maximizer.

If the cost of an advance is equal to *(interest rate x the estimated time of recouping the advance),* and the advance will ultimately be recouped in any situation, then the band is ultimately sacrificing not only the amount of the advance in royalties, but is also sacrificing bargaining power. The myopia of the band is the only reason that having a completed album will ever be less beneficial- even in the case in which a label decides not to release an album, the band does not own the master copy, so can never benefit from it.

Insights and Key Takeaways

When examining the classical model, the outcome, as expected, is that in which a recording contract is the overall best outcome for both the label and the band. When examining the contract negotiation game, given *imperfect information*, it shows that even at a level at which the label is taking a higher percentage of profits than they would be able to in a perfect information situation, the band is still better off with the label:

	Sign with Label	Don't Sign With Label
	(80, 20)	(0, 5)

Make Album	*(90, 10)*	*(0, 7.5)*
Don't	(-15, 5) *(-30, 7.5)*	(0,0) *(0,0)*

The label's only profit maximizing option is for the band to sign and make the album; the risk therein is that a band will receive an advance and either makes an album the label wishes not to release, or breaches the contract. It is certainly in the label's best interest to take as little risk as possible, so they will do everything in their power to minimize the risk of a "bad album."

In the perfect information scenario, the band must decide between self-releasing and self-promoting, or self-releasing and hiring a label, or booking agency to promote their album and their touring. This scenario is then weighable based on the above equation below:

```
Estimated Label Expenditure x (1 - Label Royalty Rate) >
    Estimated Self/Booking Agent Expenditure x (1 -
        Manager/Booking Agent Royalty Rate)
```

In all likelihood, the band will not have the raw values of expenditure, but instead will only have estimates. The band should demand the values of expected expenditure and awareness levels if possible in order to best make their decision.

The key insight in this framework is the change in utility when a band self-produces; when the label no longer has the risk that an album will be too risky to release or a wasted investment, the bargaining power of the band increases. This stands to reason; the label no longer has to make two decisions on whether to sign and whether to release because they are now the same decision. Furthermore, the band will then be able to ostensibly "shop" their album to different labels and get the best possible deal.

In the self-promotion case the result is ambiguous due to high fluctuations in online popularity and how it is gained. The basic insight remains that while a band may be able to become profitable doing it "on their own," it does still make economic sense to attach some sort of booking agent or label in order to create the highest levels of profit. Because self-promotion does not have the natural credibility a representative maintains, the loss in status could mean a loss in bargaining power no matter how good the band is; it is worth it for the band to trade a royalty of their touring revenue for the promotion because it will ultimately create a larger network that they can leverage for future earnings. It also may still be more profitable if a label promotes, depending on the awareness that the label can create based on their expenditure level.

Conclusion

The developed framework above examines the current state of the music industry. It becomes clear when one analyzes the developing ability in music production and promotion technology that a band has many more options than they did in the past; this change in industry capacities means an away from the high costs of contracts for recording artists.

Musicians that opt to self-produce an album will ultimately hold more bargaining power; because of the ability to shop from label to label, 'cost' of signing will fall.

In summation, the purpose of the updated framework was to show that musicians now have the capacity to change the current model- and it will often, in fact, be more beneficial for them to undertake actions formerly reserved to a label. This, however, does not mean the end of the record label; there will be situations and adaptations made by the music industry such that the label is a beneficial source of promotion and distribution capacity.

In the future, we can look for labels to become almost exclusively promotional engines. In the meantime, several shifts will be made to booking agencies, smaller, boutique labels, and self-representation.

Appendix of Figures and Tables

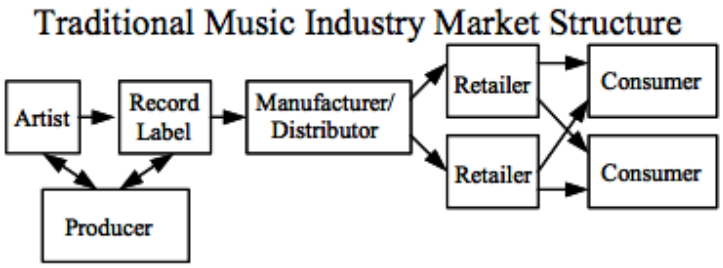

Figure 1

Bockstedt, Jesse, et al. "The Move to Online Music Distribution." Carlson School of Management, University of Minnesota. 2004.

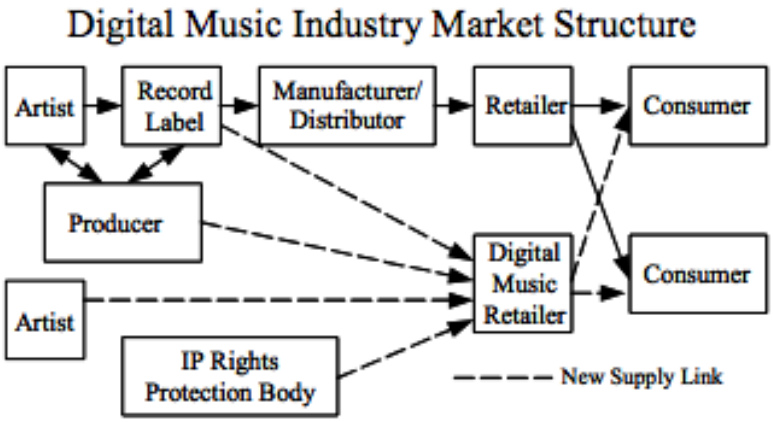

Figure 2

Bockstedt, Jesse, et al. "The Move to Online Music Distribution." Carlson School of Management, University of Minnesota. 2004.

	Sign with Label	Don't Sign With Label
Make Album	(80, 20) *(90, 10)*	(0, 5) *(0, 7.5)*
Don't	(-15, 5) *(-30, 7.5)*	(0,0) *(0,0)*

Figure 3

Based on Estimated Imperfect Information Levels and Royalty Values.

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