Centre for Creative Business Grow

Harbottle & Lewis

About The Centre for Creative Business

The Centre for Creative Business is here to inspire, educate and equip creative industry management teams. Our unique business courses, mentoring schemes, conferences, events, business networking clubs and media are all designed to do one thing; help 'the best of the best' in our creative industries – TV, music, advertising and marketing, all fields of design, film, creative software and architecture – to build more scalable, profitable and sustainable businesses.

The Centre for Creative Business is a not-for-profit joint venture between Europe's best business school, London Business School, and Europe's largest creative University, University of Arts London.

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About Harbottle & Lewis

Harbottle & Lewis LLP is a London based commercial law firm of over 80 lawyers providing specialist advice to the media, entertainment and communications industries.

The firm offers cutting edge advice across all areas of media and entertainment, including film, television, broadcasting, interactive entertainment, sport, music, theatre, publishing, fashion, design, marketing and communications and we remain unique in having extensive expertise right across these sectors.

We are committed to helping our clients deal with the challenges of, and capitalise on, the opportunities afforded by these dynamic sectors. By working at both a commercial and corporate level with a range of business across the media, entertainment and communications industries, we are able to bring wide-ranging experience to help our clients protect and maximise the value of their intellectual property rights and adopt appropriate financing models for the development and expansion of their business.

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Centre for Creative Business Grow

Creative Business – Crafting the Value Narrative

Professor Chris Higson, Oliver Rivers, Martin Deboo

A research paper by the Centre for Creative Business, June 2007

University of the Arts London

London Business School

The Centre for Creative Business is a joint venture between
London Business School and University of the Arts London

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FOREWORD

As the first sentence of this important document makes clear, the creative industries form a large and growing part of the modern UK economy. Between 1997 and 2004, the creative industries averaged 6% growth; around twice that of the economy as a whole. They employ over 1.8 million people and account for 8% of GVA (Gross Value Added) – more than the financial services sector.

As front runners in innovation, they have huge potential to exploit new technologies and are well placed to influence the innovation and, therefore, the competitiveness of other industries. As globalisation and technological advances revolutionise international and domestic business communities, UK creative industries are key 'value added' sectors and in many ways hold the key to our economic future.

Going forward, Government must foster an environment which allows these industries to innovate, to exploit opportunities and negotiate risks in order to maintain and enhance the UK's position as a global creative leader. This is precisely what the Creative Economy Programme sets out to do.

I applaud the work of the Centre for Creative Business, a highly successful joint venture between London Business School and University of the Arts London, in improving management skills in the UK's creative industries through management training courses and raising the level of debate through research such as this.

As Greg Orme notes in his foreword, during the course of the Programme we have examined the issue of access to finance and business support. This is a crucial area, with the potential to allow UK creative industries to thrive and grow. Professor Higson and his team at the Centre for Creative Business have made a valuable contribution to that thinking.

Shaun Woodward MP
Minister for Creative Industries and Tourism

INTRODUCTION

This research, which seeks to provide the tools for thinking about creative businesses and articulating their value in investment terms, came about after a fascinating evening spent at London Business School in late 2005. We were in the company of the UK's most successful creative business people in discussion with some of our most influential investors and advisors.

This symposium was staged by the Centre for Creative Business, a not-for-profit joint venture between London Business School and University of the Arts London, as part of our mission to increase management capacity in the creative industries. We are very grateful to media and entertainment law firm, Harbottle & Lewis, whose ideas, organisation and sponsorship of the evening made it all possible.

The ensuing discussion threw out fascinating facts, interesting points of view and some trenchant opinion. But there emerged a consistent notion across the different players that there is a lack of understanding on both sides of the 'financing gap'. There is ignorance of the role expansion capital can play from the SME business side, and lack of knowledge of how these creative industry companies work from the majority of UK investors. This research paper seeks to play a part in closing this gap in understanding.

I believe its findings, and common-sense guidance on how to understand the value of creative companies, are particularly pertinent as the Department for Culture, Media and Sport prepares to publish a Green Paper this summer, which will be an analysis of where our creative industries are now, and where they might go in the next ten years. As the Working Group on which I served (Access to Finance and Business Support) concluded: "The key obstacle for many firms is not the availability of finance *per se*; rather, it is the capacity to make effective use of funds".

I hope you find this research paper useful. I'm conscious that all involved in the commercial health of the creative industries – government, universities, investors, entrepreneurs, professional advisors and others – are all participating in an evolving debate. In that spirit please feel free to contact me if our report provokes any thoughts or ideas on your part. You will find my contact details at the back of this document.

Working with Professor Chris Higson, of London Business School, to produce this research has been an enlightening experience. I would like to take this opportunity to thank our sponsors Harbottle & Lewis for their contribution to and support in producing this report. I would also offer a big thank you to Chris and his team for their excellent work.

Best wishes,

Greg Orme
Chief Executive
Centre for Creative Business

EXECUTIVE SUMMARY

A Financing Gap or Analysis Gap?

This report argues that:

- Investors and creative businesses alike need to address an 'analysis gap' in the creative industries if they are to continue to evolve into the backbone of the new intangible asset economy.

- Common prejudices about risk, volatility and resistance to methodical analysis have prevented investors from talking seriously to creative industries about money for growth, leading to a perceived 'financing gap'.

- In fact, creative businesses are no different to other businesses in that the tools of financial analysis apply equally well to creative firms.
  - Firms can and should craft a convincing value narrative that explains the risks and returns – why money will be made and how value will be created and measured for investors.
  - Both business owners and investors need to use just the same framework for their analysis of creative businesses, effectively creating a common language. This is also the framework for the dialogue that managers need to have internally if they are to build financially successful businesses.
  - No new tools are needed for evaluating creative businesses in investment terms although existing tools are too often ignored in the creative industries.

How to craft the value narrative

Understanding the market environment and knowing where the power lies in the value chain will help predict which industry participants capture most value and why. So the first step in crafting the value narrative is to describe the industry structure and, locating the firm's position within it, assess its 'attractiveness' in terms of value creation. The report provides examples of how this might be done in the video games and TV industries. However, it points out that the main focus of analysis needs to be on the firm's own internal resources and argues:

- The possession of valuable intangibles including Intellectual Property (IP) is at the core of the creative business' value narrative.
  - A key challenge for investors and creative businesses is to identify the firm's ability to create value in the long run through the effective exploitation and protection of intangible assets or IP such as a catalogue of content e.g. films or music.

- Content is not the only fruit. Two other, often ignored, sources of value are 'Process' IP and Brand.
  - 'Process' IP: Some are better than others at managing the creative thought and production process, including managing creative people and this gives them a distinct advantage, enabling them to build successful, more valuable businesses. Successful companies in the video games

industry have held competition at bay for years by being good at organising and motivating talent. Process businesses like advertising, design, architecture and branding add to other businesses through their unique and superior creative thought and production process in valuing a firm. Investors and businesses themselves need to understand this advantage.

– Brand: Well-known product or company brands act as a risk reduction mechanism for their consumers, their owners, their investors and their channel intermediaries by constituting a mark of authority in their particular genre/segment; acting as a draw for talent; and by reducing the demand and supply risk, i.e. the earnings volatility.

- The risks commonly associated with creative industries can often be mitigated through careful contracting and the lawyer has a central role in mitigating the high risks that valuable intangibles often bring.

  – The final part of the value narrative is the analysis of risk. In the intangible asset economy, unlike with physical assets, risk must be mitigated, and the value of IP secured, through contracting and through legal protection. Investors need to understand how much value can be exploited and protected by legal contracts and the effect this can have on the risk profile of a business.

CONTEXT AND SCOPE

The creative industries form a large and growing part of the modern economy, but from the perspective of an investor, creativity can look like a risky endeavour. Two pervasive prejudices about the creative industries are that they need large commitments of resource to create intellectual product that has no certainty of finding a market, and that they are run by people who put art before profit. Richard Caves[1] called these the 'no-one knows' and the 'art-for-art's-sake' attributes of creative business.

A symposium at London Business School in Autumn 2005[2] brought together leading figures from the creative industries, advisers and investors[3]. There was a widespread view that there is a financing gap impeding the growth of creative businesses and a number of speakers referred to a 'cultural chasm' between parts of the creative sector and finance. We will argue that, in essence, creative businesses are no different to other businesses, and the tools of financial analysis apply equally well to creative firms. If there is a cultural chasm it is because there is an 'analysis gap' which it is the aim of this paper to plug.

Our interest is in pure creative product businesses. By *pure creative product* we mean one that can potentially be consumed as a stand-alone good, and the pure creative category includes fine art, theatre and performance, literature, music in all its forms, television and film, and recent derivatives such as games. Creative product businesses operate with a high degree of uncertainty, a fact which affects the way in which investors view them. Sources of uncertainty include demand (in advance of release, no-one knows for certain whether a film, recording or play will be a success or a flop), and technological and regulatory change. New technology has disrupted the way that some creative product is produced, distributed and consumed – a prime example is games. Elsewhere, for instance in broadcast media, deregulation and new legislation have been the source of disruption. We use the film, games and broadcast media industries as case studies in this paper.

This paper provides the tools for thinking about creative businesses in investment terms. None of the tools we suggest are in any way new in management thinking or in financial analysis. However, they are pretty much ignored in the creative industries, perhaps in the belief that creative industries represent unique challenges for investors. We do not believe that to be the case. We believe the tools represent a vital discipline for creative firms.

When they talk to investors, managers of creative businesses need to be able to craft a convincing value narrative that explains the risks and returns – *why* money will be made and *how* value will be created for investors. Viewed from the other side, investors need to use just the same framework for their analysis of creative businesses. So we pose the question of value creation in terms of the dialogue between a creative business and its investors. Of course, this is also the framework for the dialogue that managers need to have with themselves if they are to build financially successful businesses.

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1 "The Creative Industries: Contracts between Art and Commerce", Richard E Caves, Harvard University Press, 2000.

2 "Creative Industries Seminar – September 2005" jointly sponsored by Harbottle and Lewis and the Centre for Creative Business at London Business School.

3 We are grateful to Gavin Adair who contributed to the initial stage of the project.

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1 Creative industries: a value template

From a financial perspective, a firm creates value for investors when it earns a return on capital in excess of its cost of capital, and it creates more value the more it grows. So value creation is a function of the firm's ability to earn and sustain a superior return on invested capital. But in a perfectly competitive world, firms just earn a fair return and no more; the firm that achieves a superior return gives a signal for others to enter the market and drive down the rate of return again. So the sceptical investor starts with the presumption that a firm cannot create value. The creative firm's value narrative needs to explain convincingly why it can.

We propose a discipline or framework for thinking about value creation in the creative industries. It's a framework that investors can use to map the topology of value creation in an industry, and therefore the framework that firms themselves should use to tell their story. This framework has three parts.

1 Industry analysis

The first step in crafting the value narrative is to describe the industry structure. Knowing where power lies in the value chain will help to predict which industry participants will capture most value, and why. Industry structure itself can be a source of competitive advantage for some firms and, as we shall see, there are good reasons why firms occupying the distribution stage of the creative value chain tend to earn good returns. Industry analysis will help the investor to identify where value is created and where it is captured.

There are three steps in industry analysis:

- Describe the industry value chain and locate the firm within it.
- Assess the attractiveness of the firm's position within the value chain using tools such as Michael Porter's Five Forces framework which evaluates attractiveness as a function of rivalry between the firm and other incumbents, the power that suppliers and buyers wield relative to the firm, the ease with which new entrants could emerge to compete with the firm, and understand the extent "and the power of substitute products".
- Identify whether and to what extent changes in technology or the regulatory environment are affecting, or will affect, the industry within which the target firm is situated.

2 Hunt the intangibles

Even if the target occupies an unfavourable position within the value chain, it may still possess or be able to develop intangible assets that will enable it to generate shareholder value. So the second step is to identify the resources or capabilities that confer competitive advantage on the firm.

For individual creative firms, the possession of valuable intangibles is a key determinant of its ability to create long run value. Intangible assets may be hard or impossible for competitors to replicate, thus limiting competitors' ability to compete away superior returns. Some intangibles, for example intellectual property, or 'IP', also have very low

marginal cost of production. An analysis of its valuable intangibles is at the core of a creative firm's value narrative. In the context of creative firms, we judge intellectual property (IP) (in both its 'content' and 'process' incarnations), brand, and human capital to be the key intangibles.

Content IP is of course the fruit of creative endeavour, and it gets pretty much all the attention in discussions of the creative industries. But content IP is not the only fruit. We are also looking for the organisational capabilities that enable businesses to do things better than their competitors. These competences, that we call *process IP*, are neglected in the discussion of how creative firms create value. They are of course one source of *reputation* and *brand value*. A primitive intangible that underlies all of these others is *human capital*. So we are looking for corporate structures and cultures that can nurture and retain scarce human capital. Creative talent, or 'talent' as it is usually known, is obviously important but from an investor perspective so is managerial talent. Managers with the flexibility and entrepreneurial skill needed to deal with the risky and fast changing creative environment, or the savvy to deal with suppliers and buyers in commercially astute ways, are a key resource for value creation.

3 What are the risks?

The final part of the value narrative is an analysis of risk. The corollary of the high returns that valuable intangibles bring may be high risk. All intangible assets are risky in some way. Tastes may change, eroding the value of established content. Technological change may render a firm's organisational capabilities and process IP obsolete. Brand may be impaired through scandal or mismanagement. Human capital may walk out of the door. Risk assessment will enable the investor to understand whether, or how, the target's competitive advantage may be eroded.

Physical assets are relatively easy to secure. But the risk of intangible assets can only be mitigated and their value secured through contracting and through legal protection. For all intangibles, contracting is a vitally important part of protecting and sustaining value. Hence the central role of the lawyer in the intangible asset economy, and in the creative industries in particular.

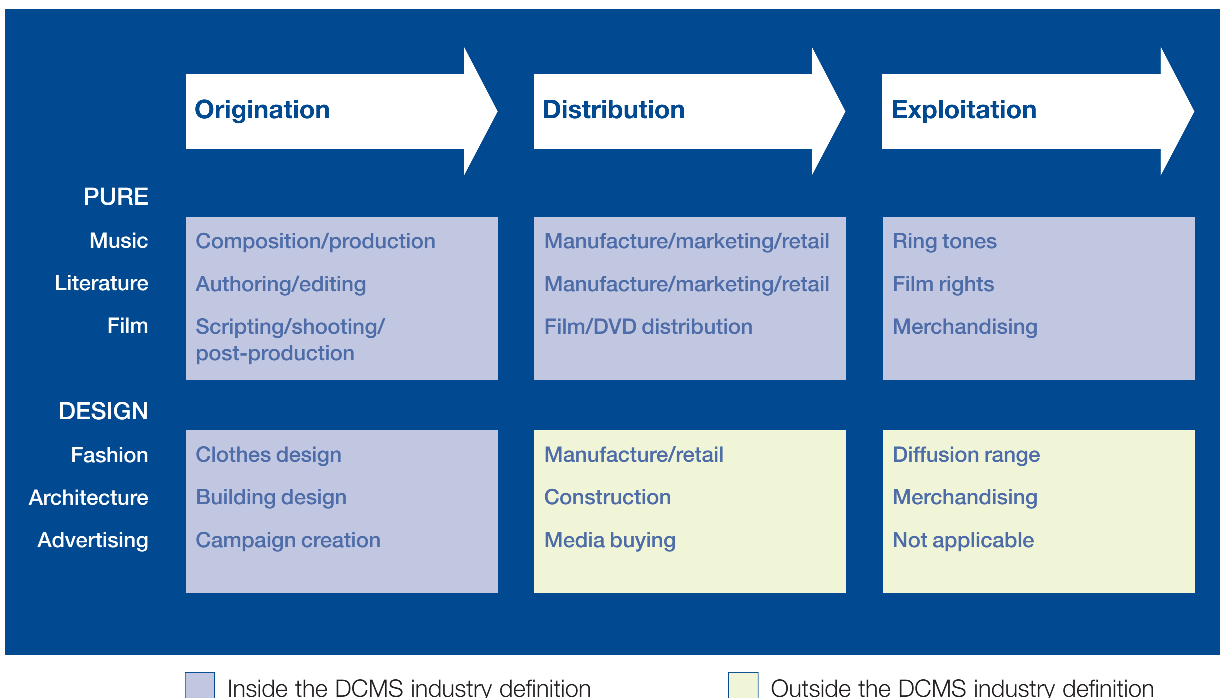
> "We argue that the possession of valuable intangibles is at the core of the creative business's value narrative."

2 Industry structure

Our first step is to propose a generic structure of the creative industries. While there are many taxonomies one could use to describe the creative sector, the following simple scheme helps to locate the parts of the creative terrain that this paper is interested in.

We distinguish two types of creative product – pure and design. A *pure creative product* can potentially be consumed as a stand-alone good. The pure creative category includes fine art, theatre and performance, literature, music in all its forms, television and film, and computer games. A *design product* must be embodied in another product in which it inheres. The other product may be a tangible or physical good, as is the case with architecture, furniture design, fashion design or product design. Or it may be intangible or digital, for instance advertising or web design. Within design, for example all architecture, fashion, product and web design, and advertising.[4]

For simplicity, we view the value chain for creative product as having three parts: origination, distribution, and exploitation. *Origination* describes the creation and a production of creative goods. The origination process may be complex and may involve many independent parties. In the *distribution* stage, the creative product is delivered to the final consumer, perhaps through a series of intermediaries and through aggregation. In the *exploitation* stage, further value is added by making creative products into joint products with other products. So, our taxonomy is as below; populated with some examples of creative activities categorised in this way.



Inside the DCMS industry definition   Outside the DCMS industry definition

4 In previous analyses the Centre for Creative Business has distinguished between creative *product* and creative *process* businesses. These categories are similar to our classification of businesses into *pure* and *design*.

The boundaries of these categories are, of course, flexible and there are, no doubt, many other feasible taxonomies. But this relatively simple scheme is helpful in understanding how value is created and captured in the creative industries. It also allows us to explain the way the terms 'creative industries' and 'creative sector' are commonly used, notably by the Department for Culture Media and Sport (DCMS). In our taxonomy the term 'creative industries' means all the parts of the pure creative product value chain, and the origination part in the design industries (shown in pale blue on the diagram of the previous page). In the remainder of this paper we focus our discussion primarily on the pure creative product value chain. Equipped with this basic taxonomy, we now use computer games as a case to illustrate the process of industry analysis.

Case: The games industry

We use the term "computer games" to apply generally to games played on home computers, and video games played on games consoles and hand-held devices. The industry is made up of:

- **Console and computer manufacturers,** who make the devices on which games are played. Games consoles are proprietary formats; a title which has been versioned for an Xbox cannot be played on a PlayStation.
- **Third-party games developers,** engaged by publishers to develop games either based on the publisher's ideas or conceived by the developer itself. Although some developers with greater bargaining power are able to retain the rights in the game, we have assumed a work-for-hire basis of development with rights passing to the publisher.
- **Games publishers**, who typically commission and retain ownership of the intellectual property in games titles produced by "work for hire developers". Games publishers are also responsible for coordinating the manufacture, marketing and distribution of games titles (though some or all of these activities may be outsourced).
- **Retailers**, who sell computer games to the public.

There is a certain amount of vertical integration within the industry; console manufacturers publish and develop their own titles, some third-party publishers retain in-house development teams, and third-party developers sometimes seek to publish their own titles. The value chain is as below:

Where's the power?

In the late 1980s and early 1990s the console manufacturers – at that time Nintendo and Sega – were the industry's dominant players. That picture has changed over the past decade, as the arrival of new entrants – Microsoft with the Xbox and Sony with the PlayStation – has lead to increased competition between console manufacturers. Consumers have benefited, as the price of games consoles has fallen. Another consequence in future may be shorter life-spans for games consoles, as manufacturers compete to introduce new, technologically improved consoles more quickly than their rivals[5].

Declining product life-cycles for games consoles means a smaller window for console manufacturers to recoup research and development costs, thus making it ever more pressing for manufacturers to persuade publishers to produce hit titles for their formats. It is likely that the effect in the long run will be to weaken the power of individual console manufacturers relative to games publishers.

Games publishers also enjoy considerable power relative to third-party games developers. One reason is competitive intensity between developers. For example, in the UK there are approximately 270 games development studios, versus eight UK games publishers[6]. Another is the fact that publishers act as gatekeepers between developers and retailers.

It should be no surprise that in the film, television, music and games industries substantial value is captured by the distributors (by which term, in the games industry we mean the publishers as opposed to the more 'nuts and bolts' distributors of boxed products), those enterprises who own the channels that convey creative goods from originators to consumers. One reason is that distributors in each of these industries are affected by scale economies. The cost of setting up a national or international distribution or broadcasting network is high, but the marginal cost of pushing additional product through a distribution network is low once the distribution network is in place. Another factor is co-ordination problems. Managing the release of a major title – game, film or recording requires a combination of global scope and detailed local knowledge. And the substantial capital investment required to set up a distribution network is itself a barrier deterring the entrance of new, would-be distributors.

Scale economies and high barriers to entry mean that distribution tends to be an oligopolistic activity. Hence the second reason for distributors' ability to extract value: there are lots of bands, film producers, programme makers or games developers clamouring to have their product released, and few distribution channels open to them. As a consequence, distributors can frequently impose onerous terms on content creators.

In the games industry developers are typically compensated by publishers through an advance against royalties which is usually sufficient for the developer to cover its costs and to make a small profit margin. Once the advance is recouped the developers start to receive a proportion of retail sales. In the 1980s most developers expected to earn royalties on most titles, but that situation has changed in recent years. Average development costs for a games title in the UK for the last generation of consoles (the PS2 and Xbox) were in the region of £3 million, and certain to continue rising (costs for next generation PS3 and Xbox 360, are substantially higher than this, reaching £10 million and above).

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5 DTI/Spectrum Strategy Consultants, *From exuberant youth to sustainable maturity.*
6 Ibid.

Assuming a typical developer's unit royalty is £2, a title will have to sell over 1.5 million units before the advance is recouped and the developer starts to receive royalties. That is a level of blockbuster performance that very few games titles achieve, and many developers are thus wholly dependent on the advance against royalties to survive.

We would expect to find these competitive advantages reflected in the economic performance of games publishers, and so it proves; in a recent research note the investment bank S G Cowen found that four of the largest games publishers – Activision, Electronic Arts, THQ, and Take-Two earned returns on capital in excess, and in some cases, well in excess of their cost of capital[7] (see table below). To return to our taxonomy then, it is important to draw a distinction between value creation and value capture. In pure content businesses while value is created in the origination stage of the value chain, it is most often captured in the distribution stage.

	WACC[8]	ROCE[9]	ROCE – WACC
Electronic Arts	11.6%	29.4%	17.8%
THQ	11.6%	24.6%	13.0%
Activision	11.5%	24.4%	12.9%
Take Two	11.7%	15.6%	3.9%

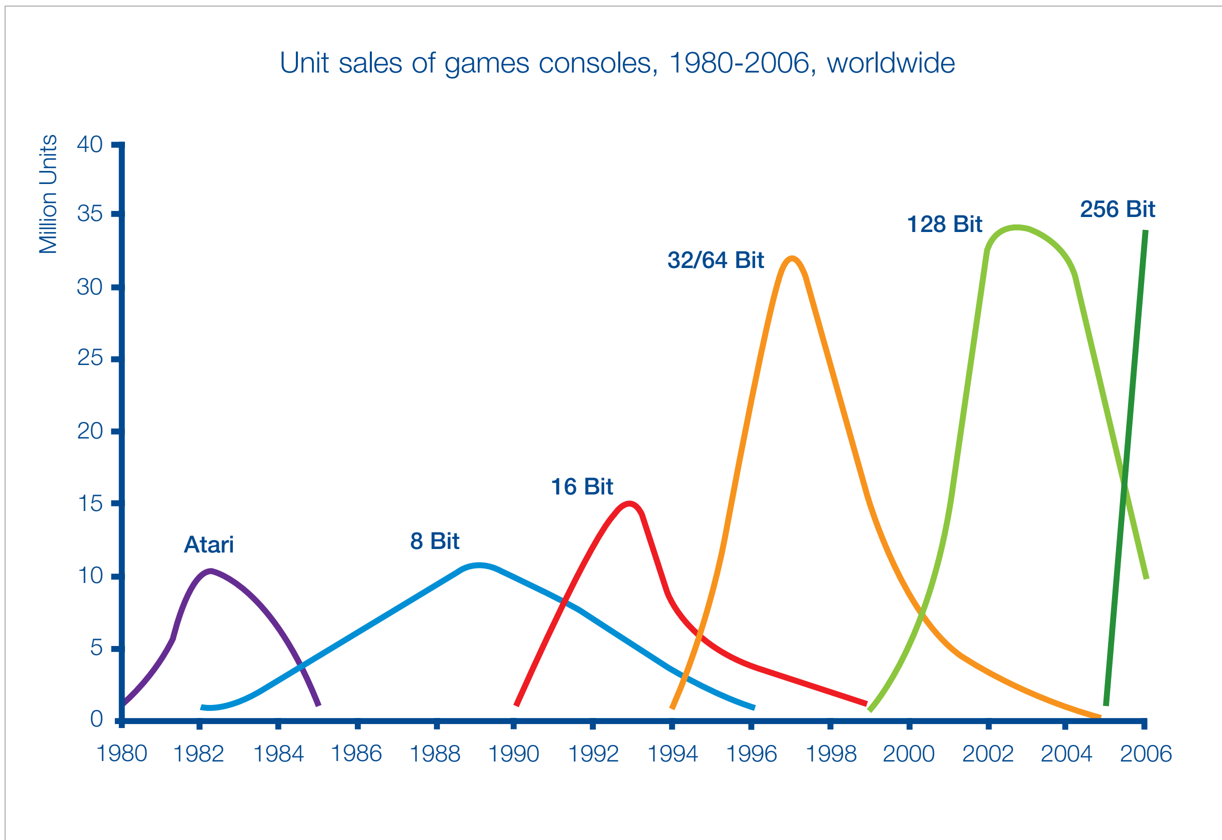
7 S G Cowen, *Video Games*, November 15th 2005.

8 WACC – Weighted average of cost of capital – the blended cost of the firm's funds, reflecting the mix of debt and equity in its capital structure.

9 ROCE – Return on capital employed – a measure of the profitability of the firm's assets.

The impact of technological change

Technological change has had a strong and continuing impact on the dynamics of the computer games industry. Improvements in technology – increased memory, processor speed, and graphics capabilities – mean that every three to four years since the 1980s console manufacturers have released new games consoles; the result is considerable cyclicality in the sale of games consoles:



Games sales tend to follow the peaks and troughs of the console cycle, generally with a lag of up to 18 months. This presents publishers with a dilemma. In a downturn, publishers lay off developers to avoid having to maintain high fixed costs as their revenues contract. But when the industry enters an upswing, developers become a scarce resource, as publishers seek to bring large numbers of new games to market. In these circumstances a publisher will be willing to acquire a third-party developer at a premium to its value as a stand-alone entity. So development advances and royalties may not be the only ways in which developers can capture value. In times of industry expansion, when developers are a scarce resource, they may be able to extract more of their strategic value to games publishers. Current trends mean that the relative power of games publishers may increase over the next few years. There are two main reasons for this. The games industry is now increasingly global, and the consequence is likely to be industry consolidation, as publishers merge or acquire one another in order to achieve sufficient size to compete globally. Consolidation means fewer, bigger publishers that are more powerful relative to other participants in the value chain. The other reason is rising development costs. In the future only publishers with access to sufficiently large amounts of capital will be able to continue producing games. Capital requirement is a deterrent to new entrants, which means that the powerful position of major publishers is unlikely to face major challenges.

Games publishers don't have it all their own way though; the retail sector enjoys considerable power in the games industry. It is fairly concentrated, with a Herfindahl-Hirschman score of 1,432[10], and between them the three largest games retailers in the UK; Electronics Boutique, Dixons, and Woolworths – have a 51% share of the market. Retailers can impose onerous terms on games publishers, including low wholesale prices, sale or return policies, and co-op marketing deals, where the publisher pays for in-store promotional campaigns, or shares the retailer's advertising costs.

10 The Herfindahl-Hirschman is a standard measure of industry competitiveness. It is calculated by summing the square of the percentage market shares of each competitor in an industry. The US Department of Justice regards markets in which the HHI is between 1000 and 1800 points to be moderately concentrated.

3 Hunt the intangibles

3.1 The value of content

Content involves the creation, ownership and control of intellectual property. Intellectual property assets are valuable because they are highly differentiated; for the consumer who wishes to see *Gone with the Wind* or to listen to *Penny Lane* there are no close substitutes available. Furthermore, some hits can have the added attraction of being highly durable. Thus a hit may generate stable revenues over a period of time that is limited only by the duration of the applicable copyright term.

> "The bad news is that in advance of their creation the value of intellectual property assets is unknown; the creator faces extreme demand uncertainty".

In consequence, financing content creation is a challenge, and the providers of finance-banks with expertise in media investments, major film studios, or record labels, will seek to protect themselves from the likelihood that they will lose their investment. This means option-based structures, which grant providers of capital the right to stage their investment in various ways (for example, a recording contract which allows a label to terminate or continue a relationship with an artist), and agreements which protect the investors' downside, such as film production deals which enable distributors to recoup all their costs before producers receive any share of box office receipts.

3.2 'Process' IP – content is not the only fruit

We naturally think of creative businesses as organisations which create value by providing content – a piece of recorded music, a film, a television format, or a computer game – and by capturing the value of this content IP.

However to think of creative businesses as exclusively those dependent on IP that resides in content would be an over-simplification. Many highly innovative businesses, including many creative businesses, have a competitive advantage which resides in what we will call *process IP*. We define process IP as a sort of proprietary approach or model, set of routines, organisational structure or simply a way of seeing the world which is of value to the firm's customers and which is capable of generating sustainable advantage and hence value creation. Many professional services firms have this characteristic, but process IP can be an important source of competitive advantage for content businesses also. For example, part of the reason for Miramax's rapid growth in the 1990s lay in the firm's understanding of how to market art-house films to mainstream audiences, something that had previously been considered impossible in the American movie business.

Competitive advantage rooted in process IP has attractive characteristics for investors, that are usefully contrary to many of the volatilities and uncertainties which plague content IP-based firms:

- **Scalability**, in that the proprietary process can become independent of key individuals and can be replicated amongst individuals and entities who may lack the perspicacity of the 'founding fathers' (but who are usually cheaper to hire and more numerous).

- **Defensibility**, in that the process may be difficult to copy *per se* (or perhaps even legally protectable), or builds time-based advantage as the result of repeated application and/or a reservoir of experience and benchmarks which it is difficult for late-entering competitors to emulate.

To illustrate these points, let us consider two examples of process IP-based businesses:

Millward Brown

Millward Brown is a market research company which specialises in measuring the effectiveness of advertising. In the late 1970s, Millward Brown's founders Maurice Millward and Gordon Brown became frustrated with the blunt tool of the traditional pre/post 'dipstick' check on advertising awareness. Advertising awareness rapidly decays after the cessation of a campaign, meaning that the 'post' measure of awareness was acutely sensitive to the timing of the dipstick check. As a result inter-campaign comparisons were difficult to make and clients had limited insight into campaign effectiveness.

Millward Brown's breakthrough was to replace the dipstick concept with a 'continuous tracking' approach, wherein a robust sample of target consumers was interviewed every week on a week in/week out basis, whether the client's campaign was running or not. As a result Millward Brown obtained rich insights into how advertising awareness trended on a continuous basis in response to weekly television ratings. Importantly, Millward Brown were able to capture this relationship in a simple and intuitive single-point measure of advertising effectiveness – the 'Awareness Index' (AI). The AI measures the number of incremental points of advertising awareness added per 100 gross rating points of television exposure. The AI proved to be a highly variable indicator across campaigns and therefore provided advertisers with immediate and potent insights into campaign effectiveness.

Clients quickly flocked to the new service, which enabled Millward Brown to rapidly build a database of AIs across different product categories, with resultant enhancement of the quality of the insights. A virtuous circle of insight, client attractiveness and defensibility rapidly developed, leading to rapid growth. Ultimately the business was able to roll out globally and achieved leadership of its segment in the US – generally acknowledged to be the most sophisticated and competitive market in the world for advertising research.

Naked

Naked is doyenne of the new wave of 'communications planning' consultancies taking root in the London marketing services sector. Naked was founded in 2000 by three partners, all of whom had previously worked for large media-buying agencies. Naked prides itself on being hard to categorise, but its core communications planning focus is orientated towards devising strategies to find new and more effective ways to reach consumers through communications, based on 'innovation, strategy and insight.' What sets it apart from the traditional media-buying and planning agency such as MindShare or Starcom is that Naked adopts a consumer-centric, rather than media-centric approach to communications selection. This is based on building an understanding of the 'customer journey.' Naked start by thoroughly understanding the lifestyle of the target consumer and which communication 'touchpoints' are available through which perceptions of the brand can be influenced. This contrasts with the traditional media-centric model, where choice of medium, not the consumer, is the starting point. Naked's approach tends to lead to more use of non-traditional and non paid-for media. In the language of strategy, Naked represents more 'vertical unbundling' of the agency value chain in that it has created a new niche which sits between the creative idea formation delivered by traditional advertising agencies and the media buying function performed by the large media agencies. Despite its genesis in media planning and buying, Naked has chosen not to deliver this function for clients, instead working off a fee-based consulting model.

Naked has rapidly scaled its business model from its inception and picked up clients including Sony, Reebok and the UK Government. As the business has grown, it has experimented with new, targeted offerings in brand strategy (Naked Flame), 'activation marketing' (Lunch Communications) and a joint venture with UK creative agency Clemmow Hornby Inge (Naked Inside.) By 2006 it was building an international network of offices in London, New York, Paris, Amsterdam, Oslo, Sydney and Melbourne.

3.3 Brand

Traditional brands – be they corporate brands like Virgin or IBM, or product brands like Coke and Tide – are frequently the property of large vertically integrated firms. At first blush, branding in the traditional sense of the word might be thought to play a peripheral role at best in the creation of value in creative businesses, where value seems most obviously to reside in the creative properties and the talent that creates them and the ability on the organising firm (be it creator, distributor or exploiter) to capture the economic rents from that content and talent. However such an analysis ignores the important role that brands play in the creative industries. At their most basic, brands act as a risk reduction mechanism for their consumers, their owners, their investors and their channel intermediaries. Given the prevalence of the 'no-one knows' phenomenon in the creative industries, this ability to reduce risk should be highly prized. From an investor perspective, there are four principal ways in which a brand can enhance the attractiveness of a creative enterprise.

1 *By reducing risk for the consumer and channel intermediary*

Creative products are risky purchases and in general the origin of the product is a limited guarantee of its success. For example, one might really like Coldplay, but liking Coldplay is very unlikely to make one any more predisposed to buying music from other artists on the roster of EMI, Coldplay's record company. However there are circumstances in which the presence of a brand can reduce risk:

Where 'genre' values are important: If you are looking for an animated film to which to take the family this summer, then look no further than Pixar, which has made itself a byword for success in this genre. In music, label brands have played a crucial role in breaking new talent in the early, experimental phase of new music movements e.g. Def Jam in Hip Hop and Stiff Records in the early days of Punk and New Wave. The essence of the argument is that, if I am interested in a certain genre of creative product, then I am more likely to purchase from a brand whose values constitute a mark of authority in that genre. This argument applies equally to both end consumers of the product and to channel intermediaries such as distributors and retailers.

Where the economics of bundling are attractive: Much of the profit in the film and music industry in particular arises from the 'Long Tail,[11] in other words the back catalogue where, despite slower sales, margins are traditionally high. However

[11] The Long Tail, Chris Anderson, Random House, 2006.

back catalogue operations tend to be logistically complex and as a result depend on economies of scale. Exploitation of a back catalogue brand can therefore again act as a mark of quality to consumers and intermediaries. Examples include Penguin Classics and labels such as Columbia Legacy and Rhino in music.

2 ***By acting as a draw for talent***
Success in creative businesses often depends on having access either to the best talent at whatever the price, or adequate talent at lower cost than competitors. The omnipresent risk is that major talent bargains away the extra value it creates. Therefore creative brands that can foster even marginal improvements in the clearing price for talent are enormously valuable.

From the point of view of talent itself, the trade-off between earnings and reputation is a difficult one and one which is almost unique to the creative industries, because the talent is consumed in public. Put more simply, the short-term value maximising strategy for a major Hollywood star is to appear in multiplex-orientated, 'franchise' movies like Mission Impossible and Pirates of the Caribbean. However, repeated appearances in these films cost heavily in terms of the artistic credibility that the talent craves. Many actors and actresses are therefore willing to invest a proportion of their time in lower budget arthouse fare where tales of major league talent working 'for scale' (standard union rates) abound. Woody Allen's continuing ability to employ leading Hollywood talent in his movies at bargain rates is an example.

This is the extreme case of a hypothesis which argues that, all other things being equal, talent will be prepared to work for less (or be more long-term loyal) to a creative brand that provides them with a degree of artistic credibility. The archetype of such a brand is the BBC, which has traditionally been able to pay its managerial and creative talent less than the commercial sector. However further examples abound, including agencies such as Mother and St. Luke's in advertising, Miramax in film and, small but prestigious theatres like the Almeida and Donmar Warehouse, where major actors and actresses are willing to perform for Equity minimum pay.

3 ***By increasing marginal preference***
A defining characteristic of the creative industries is that the marginal cost of supplying an additional unit of 'experience' (e.g. a cinema admission or a downloaded track) is usually close to zero. Therefore rates of marginal profit are high and, accordingly, the economic break-even from small differences in volume preference is low. Therefore one does not have to believe much about the influence of a producer brand to believe in its economic effectiveness.

4 ***By reducing earnings volatility***
In the light of all the above, it can now be seen that a composite benefit of a creative brand is that it can lower the earnings volatility which plagues creative businesses by reducing both demand risk (giving the benefit of the doubt and increasing marginal preference) and supply risk. This should therefore reduce the risk-adjusted cost of capital of a creative business that owns a strong brand.

3.4 People

It is the ability to manage human capital – the talent in individuals and groups that enables the serial creation of valuable content and enables organisations to respond flexibly and innovatively to new opportunities or changes in the competitive environment. The challenges of managing human capital in the creative industries can be formidable however. Perennial squabbles between recording labels and artists illustrate the challenges of achieving contractual arrangements in the creative industries that are satisfactory to all parties.

Labels make substantial upfront investments in artists, in the form of production and marketing expense, and at the outset of a musician's career nobody knows whether these costs will be recouped. Hence the option-like nature of many recording contracts. Ideally, from the label's point of view, the contract will grant it the right to terminate its relationship with an artist whose albums have flopped, while at the same time enabling it to demand new releases from a band that storms the charts.

This right to demand new output is crucial for the label, since it is the present value of future sales streams from its stars which enables the label to finance the cost today of launching unknown bands. Imagine that a record company launches 20 bands a year, at an average cost of £250,000, giving an annual investment in new artists of £5 million. Assuming the label's cost of capital is 10%, and that only one out of the 20 bands succeeds, then that one band will have to generate cash flows of greater than £500,000 a year in perpetuity for the label to earn a positive return on its investment in new artists. Any less than this and the label is destroying shareholder value. Thus a key skill the label must possess is the ability to manage its relationship with successful artists, keeping them happy, and ensuring a stream of high-selling albums.

EMIs recent experience demonstrates the point. On 7th February 2005 the company announced that albums by two of its major bands – Coldplay and Gorillaz – would be delayed. Late release means cash flows deferred, and hence lower present value today; EMIs share price fell sharply on the news.

Case: Hunt the intangibles in the games industry

For publishers and games console manufacturers the most important intangibles are not hard to identify; they are content IP – games titles and patent-protected proprietary technology that underpins consoles.

Games developers, as we have seen, have a harder time capturing the value of content IP. Instead, they may create value by developing strong process IP, the ability to make high quality games more efficiently than the competition. When publishers are on the hunt for development capability such process IP is valuable. At the 2005 Leipzig Games Conference Unit Capital presented data on major acquisitions by games publishers over the past five years:

Date	Acquirer	Target	Transaction value ($m)	No. of developers	TV per developer ($)
Mar 05	Sega	Creative Assembly	26.6	70	380,000
Nov 02	Take Two	Angel Studios	34.7	125	277,600
Oct 02	Activision	Luxoflux	9	30	300,000
Aug 02	Take Two	Barking Dog	8	50	160,000
Apr 02	Activision	Shaba Games	7.7	35	220,000
Jan 02	Activision	Gray Matter	5.3	15	353,333
Nov 01	THQ	Rainbow Studios	55.5	80	693,750
Oct 01	Activision	Treyarch Invention	14.1	140	100,714
				Average	**310,675**

It makes sense to express the value of a games developer in terms of value per developer because this measure represents the incremental value to the publishers that each additional developer creates for the acquirer. These are figures for US-based developers, and it would be misleading to draw wide conclusions from them for UK-based firms. However, there are approximately 10 UK studios employing 100 or more developers[12]. Assuming a value per developer of £125,000, this implies that in an upswing these studios should be worth at least £12.5 million each to a strategic acquirer.

It is uncertain whether games developers will continue to be as valuable to publishers. Part of developers' value has lain in the fact that games coding is a specialised, hard-to-document and hard-to-transfer skill. That situation is changing, as coding techniques become better codified. As a result, the costs of coding are falling, and publishers in the future are likely to be more willing to rely on offshore developers for mundane coding tasks which in the past they would have only entrusted to onshore specialists. In other words, technological change is eroding the value of games developers' process IP.

The new challenge for third-party developers in having to compete against lower-cost offshore rivals is also an opportunity. Publishers will still require specialist project-management skills, and will still need games producers who can conceive of hit titles and oversee their successful development.

> "The opportunity for third-party developers is the chance to move to a more flexible, asset-light business model, in which they concentrate on higher value-added services – dreaming up hit games and supervising their development – without the need to maintain expensive teams of in-house developers."

[12] DTI/Spectrum Strategy consultants, op. cit.

4 Risk

Each of the classes of intangible asset that we described in the previous section is vulnerable to particular risks. We highlight the key risks faced by each class of intangible in the table below, and indicate the potential for protection through lawyerly intervention. Even lawyers can do little to mitigate demand failure in a hit-based business, and nothing to avert technological obsolescence. But lawyers have enormous potential to reduce the risks associated with IP, brand and human capital.

Such risks are not unique to the creative sectors. In other industries they have created a competitive wasteland where consumers prosper, but where many firms struggle to earn a fair return. The firms that may still create value are those that most effectively manage their intangible assets, and those that have chosen efficient business models. So to understand where value will be created we need to ask, where are the intangibles, and what is happening to business models? We also must consider industry structure; knowing where power lies in the value chain will enable us to predict which industry participants will capture most value, and why.

Risk for creative businesses is a function of uncertain demand, business model choices, and time. All creative businesses face the risk of product failure: the client may reject the advertising agency's pitch for new work; the architect loses the competition to design a new building; the studio's hoped-for blockbuster turns out to be a flop. The production process also introduces a series of risks into the equation; multi-stage production processes are vulnerable to hold-up problems. Finally, the risk profile of content businesses may change markedly over time as they build libraries that generate stable, long-lived cash flows.

Type of Intangible	Key Risks	Protection through lawyerly intervention?
Content	Demand failure.	Low. Protection of downside through option-based contracting, structuring of financing packages.
	Copyright infringement.	High. Defining of rights, assertion of ownership, litigation to punish infringement.
Process IP	Technological / economic change renders process obsolete.	Limited.
Brand	Passing off / piracy.	High. Litigation to pursue pirates.
Human capital	Walking out the door.	Medium / high. Employment contracts to tie in key talent.

4.1 Demand failure risk

The impact of product failure is felt acutely by content businesses, since it is not feasible to market-test an incomplete product until a substantial amount of expenditure has already been incurred. For example, Hollywood test screenings take place after most of the production budget has been spent. The financial and legal strategies employed by film studios to mitigate against product failure include portfolio diversification, staging of investment decisions, and deal structure.

Staging of investment decisions means the option to continue with a project or to kill it. If the script is good, the studio can increase the production budget. If the test screenings are poor, the studio can decided whether to re-edit, or to scale back marketing expenditure. Thus not all the investment required to launch a film need be committed upfront; investment decisions can be revised as new information about the chances of success or failure arrives. These options to defer investment, or to modify the amount of capital at risk, are a source of flexibility and hence value.

Finally, studios can mitigate against demand failure by protecting their downside through effective deal structuring. Studios, exploiting their power within the value chain, frequently strong-arm cash-hungry film producers into net profit participation deals, in which producers take a share of a film's revenues only once the studio has recouped all its costs. These costs usually include not only prints and advertising (so-called P&A, the cost of manufacturing copies of the film and marketing it) but also general overhead, and often a financing charge. In practice, it can be extremely hard for producers to determine what these costs are, and it is unusual for producers to see much return from net participation deals.

Demand failure is of course a risk not only experienced by content businesses. In the fashion industry, the fashion retailer Zara has responded to the pressures of uncertain consumer demand by developing significant process IP in the areas of operations and logistics:

Zara

A fashion retailer must invest in stock without knowing whether or not its choice of design or fabric will meet with its customers' approval. In the past, long production lead times have made it impractical for retailers to mitigate against the risk of product failure by placing small pre-orders and then increasing production in response to demand. But in recent years the Spanish retailer Zara has managed to do just that by improving the management of its supply chain. Investment in logistics has made the company able to respond more quickly to changes in customer demand. The result is that Zara holds lower inventory than its competitors, and the capital tied up in stock is at lower risk.

For creative service businesses the impact of product failure is substantially lower. The cost of presenting an unsuccessful pitch to a potential client is the opportunity cost of advertising executives' time. And once a pitch has been won the likely effectiveness of a proposed campaign can be tested at relatively low cost with a sample target audience.

4.2 Production process risk

The production of creative goods is usually a multi-stage process, dependent on the inputs of many different workers, each essential to the successful completion of the task. If output quality at each stage falls below some minimum level then the creative good will turn out a failure. Thus each production

stage becomes critical to the ultimate success of the creative good. This can give rise to contracting problems, as participants at each stage of the creative process may seek to exploit their bargaining power.

Theoretically the risks associated with hold-up problems can be mitigated through contracting arrangements[13]. However, complete contracts are hard – if not impossible – to draw up given the uncertainties associated with the production of a creative good. Incentive-based contracts may also result in sub-optimal effort and output where the proceeds of creative endeavour are shared between multiple participants. Am I incentivised to work flat out if I only receive a fraction of the value that my extra labour creates?

Business model risks and the associated contracting challenges may be addressed in one of two ways. Where contracts with third parties are hard to draw up, costly to enforce, and likely to result in the misalignment of incentives an alternative is to bring all stages of the creative process within the confines of a single firm. But such a solution entails high fixed costs, and will only be feasible if a firm trades in a market of sufficient size and stability to support large, vertically integrated firms. Alternatively, the need to preserve reputation can deter creative workers from causing hold-up problems. If creative workers get a name for driving unfair bargains, or failure to honour contracts, deal-flow will dry up. So workers' need for future work creates an incentive for them to deal fairly with one another today.

4.3 Risk and time

Thanks to the back catalogue the risk profile of certain kinds of creative business can change quite markedly over time. Consider a film distribution company. Each year it pays an advance to acquire the rights to distribute a slate of films in a given territory for a specified period – typically 25 years or more. At the moment he or she takes on a film, the distributor is uncertain whether it will be a blockbuster or a turkey. But after release the film's financial performance is known, information that is a reliable guide to the film's likely future earnings. As the size of the film distributor's back catalogue grows the degree of uncertainty faced by the business decreases, both because sales from new titles form a smaller proportion of total sales, and because back catalogue sales are more stable.

The same dynamic applies to games publishers and to record labels. Over time in such businesses the value of new titles remains unknown, but the back catalogue becomes a source of stable, predictable cash, and an asset which may appropriately be funded through debt. This transformation in risk profile has implications for the optimal capital structure of creative content businesses. Michael Jensen[14] has argued that managers in companies with stable, abundant cash flows tend to be profligate, make poor investment decisions, or otherwise waste valuable cash flows. For him, debt is the answer, as the need to meet interest payment reduces the amount of cash managers have to play with.

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13 Caves, op cit.

14 Michael Jensen, Agency Cost of Free Cash Flow, Corporate Finance, and Takeovers, American Economic Review, Vol. 76, No. 2, May 1986.

Case: Risks in the games industry

For console manufacturers, the main risks are technological obsolescence and demand failure. Sega exited the console market at the end of the 1990s after its technologically inferior Saturn console was trounced by superior offerings from Sony and Microsoft. Strategies to mitigate these risks include investment in research and development, and ensuring that there is a sufficiently large pool of publishers developing games for the manufacturer's console. Hit games which are only available in one console format will boost that format's sales.

For developers, as we have seen, a major source of risk is that benefits conferred by their process IP, which in many cases is their only source of sustainable competitive advantage, will be eroded by technological change and globalisation; as the games industry matures, games development becomes less of a black art, and can safely be offshored. Developers can attempt to mitigate these risks in two ways. Embracing the opportunities created by change, and moving into higher value added services (games conception and project management) is one response. The second is to attempt to move up the value chain and retain greater control over IP. The emergence of new methods of debt financing now makes this a viable choice (see 'Debt financing in the games development industry').

For publishers, the main risk is demand failure. Games publishing is a hit-based business, which means that potentially publishers face volatile sales and earnings. Mitigation is achieved by reducing fixed costs through outsourcing, by portfolio diversification (releasing large numbers of titles), and through franchise development. Franchise development means one of two things: either licensing rights from film studios to create games based on hit films, a strategy which reduces the risk of demand failure because it is reasonable to assume that a successful film's fans will also be willing to play a game based the film's content; or developing games franchises, games which are extensions of earlier, successful games. *Doom*, *Tomb Raider*, and *Civilization* are all examples.

Debt financing in the games development industry

In the computer games industry, independent games developers have almost always been financed by games publishers, who fund third-party development through advances against future royalties. Recently some developers have begun attempting to capture a larger slice of the pie by seeking alternative sources of finance.

One UK fund provides finance and project management for games publishers and developers. Developers seeking funding only get financing if they already have distribution agreements in place – the fund has no interest in supporting speculative games development. In a typical deal the fund will establish a Limited Liability Partnership (LLP) with a developer to which the project IP is transferred, and the fund will finance the development of the game. With finance in place, the developer is able to negotiate better terms with the publisher who will distribute the game; royalties of more than £6 per unit are possible, compared to what has been the £2 per unit industry norm.

Royalties are payable directly to the LLP, which will then split them between the fund and the developer. Until the fund has recovered its investment plus interest and administrative costs, the bulk (90% or more) of the royalties are payable to the fund, with the balance payable to the developer (this is an example of the downside protection deal structure typical of the film industry). Interest rates charged by the fund are likely to be high, since the only assets against which it has a claim are the IP owned by the LLP. Once the fund has recovered its money the royalty is split on terms likely to be more favourable to the developer – say 75%:25%, or better. One could classify such financing structures as convertible debt since the financier feeds first until it has recovered its investment, and allows it to participate in the upside.

Although a relatively recent development in the games industry, such structures have been common in the film industry for a long time. That they are now available in games development is an indication of the growing maturity of the industry.

5 Regulatory change

The UK television production sector has seen considerable financial activity in recent years; Shed Productions and RDF Media floated on AIM in early 2005, with market capitalisations of £44 million and £49 million respectively; All3Media, backed by Bridgepoint Capital, acquired Mersey TV in 2005, and Lion TV and Company Pictures in 2004, turning it into a company with forecast revenues in 2006 in excess of £200 million; and in 2003 Hat Trick Productions sold a 45% stake to Kleinwort Capital for £23 million[15], valuing the equity at £51 million. A trigger for this flurry of deals and listings is a series of changes in the regulatory environment over the past 25 years, culminating in the 2003 Communications Act, which has made life easier for independent TV production companies as they negotiate with broadcasters.

Independent TV production in the UK was born with the launch of Channel Four in 1982. With no production facilities of its own, the new channel by default adopted a "publisher broadcaster" model, commissioning a large part of its programmes from UK independent producers. Where there had been only a handful of independent UK TV production companies at the start of the 1980s, by the end of the decade there were hundreds. However, theirs was a hand-to-mouth existence; many of these companies were lifestyle businesses making only one or two programmes a year, and with only three broadcasters (BBC, ITV and Channel Four) as customers, independents enjoyed little bargaining power.

The 1990 Broadcast Act, which obliged the ITV companies and the BBC to commission at least 25% of their programmes from independents, provided a considerable spur to growth, but it left industry structure unaltered. Power still lay with the broadcasters, who would almost invariably demand the secondary, or ancillary, rights in programmes which they commissioned, entitling them to profit from sales of the programme in other territories, re-sale on video and DVD, or from merchandising. Independent producers were instead compensated as they had always been on a cost-plus basis, a production fee (profit margin) of 10-15% on top of budgeted production expenditure.

Not all producers in the 1990s gave up ancillaries however, and the consequences of success or failure in negotiating good production deals can be seen by comparing the relative fortunes of Celador, the producer of *Who Wants To Be a Millionaire*, and Ragdoll, the company that created the *Teletubbies*. Each of these properties has been highly successful. According to the British Film Institute (BFI), worldwide sales of *Teletubbies* programmes and merchandising are reported to have exceed £1 billion[16], while *Millionaire* has been licensed in over 70 territories. In terms of value capture the two companies have fared rather differently.

Ragdoll's published annual accounts reveal that in the period 1998-2005 the company's total revenues were just over £100 million, suggesting much of the lion's share of ancillary sales may have been taken by the BBC.

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[15] Source: BFI, *Television Handbook 2005.*

[16] http://www.screenonline.org.uk/tv/id/562201/index.html

Millionaire first screened on ITV in 1998. Celador succeeded in retaining overseas rights, and although separate figures are not available for the show, total revenues for Complete Communications, Celador's immediate parent, were £285 million between 1998 and 2005. It is reasonable to assume that the bulk of those revenues came from *Millionaire*, and that less of those revenues were shared with the show's original commissioner, ITV. Thus although the worldwide ancillary revenues for the quiz show are at best approximately 25% of the ancillaries from *Teletubbies*, Celador, because of its better terms with ITV, appears to have earned twice as much as Ragdoll.

It has been suggested that the 2003 Communications Act will substantially improve the lot of the independent producer. Since producers can no longer be compelled to give away their secondary and ancillary rights, they now have the chance to build an asset base of intellectual property. This comes at a time when changes in technology mean there are more platforms – mobile communications, the internet, on which such rights can be exploited. The true picture is not so straightforward however. Now that broadcasters are unable to recoup production expense from the sale of secondary rights they are starting to offer producers less favourable upfront terms. Producers may now receive much lower production fees or have to fund part of the production cost (deficits) themselves through the exploitation of secondary and ancillary rights. Such profit will only be found if the original show is itself a hit, or at least fairly successful. Thus the risk / reward profile of independent production has changed.

> "Independent producers have exchanged the low risk / low reward world of fixed commissions and no ancillary rights for a higher risk / higher reward one where commissions are hard to come by, but the upside from secondary and ancillaries may be much greater".

Process IP has a significant role to play in such a world. Revenues in hit-based content business are unpredictable, and financial markets, which prefer stable cash flows, are likely to respond badly to the ups and downs that are the normal lot of an independent TV production company's life. One way to avoid this is scale; if a company has a large stable of shows, then success or failure of any one matters less to overall performance. But, as such a diversification strategy will fail in the absence of quality control. So, successful independent production companies in the future will require not just size, but the ability to manage large teams of talented creatives. Thus would-be investors, when deciding to back production companies, should assess not only the revenue-generating potential of the back catalogue, but also such companies' ability to manage the business and nurture creativity.

6 Valuing a creative business

Finally we examine the issues that arise in valuing a creative business. As a running case to illustrate the ideas in this section we use Aardman Animation. Aardman is a much-admired production house and most readers will be familiar with its work[17]. There are two main sets of difficulty that confront the investor attempting to value a creative business. The sales, earnings and free cash flow of such businesses are highly uncertain; this makes the task of forecasting future earnings, and hence economic profit, a challenging one. Secondly, business decisions which may have a substantial effect on future earnings may be opaque to the outsider. For example, in a film production company, what proportion of future revenues will be captured by distribution partners? Who owns the rights to ancillary exploitation of IP? How effective is the company at retaining and exploiting ancillary rights (merchandising, DVD)? We will encounter both sets of difficulties as we structure a valuation of Aardman.

We begin with an analysis of Aardman's historical performance from 2000 to 2004. Aardman's sales and gross profit in this period have fluctuated widely:

[17] The Aardman valuation is purely illustrative of an approach to valuation and the issues that arise in implementing valuation for a creative firm. It simply uses Aardman's published financial data. It does not express any view on the true worth or investment value of this particular firm, and implies no view on management behaviour, critical, complimentary or otherwise.

Mean nominal sales growth over the period was 2% (i.e. roughly 0% in real terms), with a standard deviation of 21%, while mean gross profit was 44% with standard deviation of 9%. Standard deviation is a measure of volatility. We should not be surprised to see sales and profits in a hit-based content business fluctuate widely.

The structure of Aardman's balance sheet is determined by the dynamics of the film industry. The company carries large amounts of stock and work in progress, which may be Plasticine models required for as-yet-unreleased films. This asset is financed by a deferred income liability, together with short-term borrowing (see the table below).

We assume that deferred income here represents advances from distributors and broadcasters. The lion's share probably comes from Dreamworks, the American studio with whom Aardman signed a five film production deal in the late 1990s and of which the first fruits have been *Chicken Run* and *Curse of the Were Rabbit*.

If the bulk of Aardman's financing comes from Dreamworks, the industry norm would be for Dreamworks to take the lion's share of revenues. *Chicken Run* has grossed $227 million dollars worldwide since its release in 2000, of which – on the basis of industry norms approximately 80% will remain to share between producer and distributor after exhibitors have taken their cut. Bearing in mind that it will have had sales revenues from sources other than *Chicken Run* in this period, Aardman may have received quite a small proportion of this $227 million.

To value any business we need to project its future cash flows. For mature businesses in stable industries this is a relatively straightforward task; we assume the future will be much like the past. For hit-based content businesses the past is only a limited guide to the future. Does the success of *Curse of the Were Rabbit* or *Chicken Run* mean that Aardman's future films will also do well? One approach when valuing under uncertainty is to construct a series of scenarios about future possible outcomes. Each scenario implies a value, to which we then assign a probability (with the total of the assigned probabilities summing to one). Multiplying the value found in each scenario by its designated probability gives the expected value, and summing all the expected values gives us the expected value for the business. The probabilities are subjective, so valuation under uncertainty is as much an art as a science. The usefulness of the exercise lies less in the final output – a single number – as in the fact that we have

	2000	2001	2002	2003	2004
Stock and Work in Progress	**35,438**	**40,172**	**36,448**	**42,193**	**50,966**
Deferred income	41,664	49,151	41,248	46,698	45,258
Short-term debt	71	37	635	3,940	12,925
Total deferred income and short-term debt	**41,735**	**49,188**	**41,883**	**50,638**	**58,183**

been helped to think about the drivers of value. Also, scenario valuation helps shape a range of feasible values, and suggests what the likely worst case or best case may be.

To value Aardman, we imagined three different scenarios. “Average” is based on Aardman’s mean performance over the past five years. In the “Challenging” scenario Aardman shrinks, and it fails to wrest value from the clutches of Dreamworks. Finally, in the “Favourable” scenario, we consider what Aardman might be worth to an industry acquirer, such as Dreamworks, bearing in mind that such an acquirer would be able to capture a much greater share of the value that Aardman creates, probably be able to generate more revenue from ancillaries, and be able to achieve cost reductions through reduced overhead. The main inputs of our scenarios are outlined in the table below.

“Ancillaries” is a portmanteau term covering both sales from previously-released titles and revenues from merchandising. We assume that ancillaries sales flow entirely to the bottom line; there is no incremental operating expense or investment in fixed assets required to generate back catalogue sales. Hence over time Aardman will see improvement in its profit margin and return on invested capital if it grows its ancillaries sales. As outsiders, we do not know what proportion, if any, of Aardman’s sales come from ancillaries. As investors we would certainly be concerned to understand the extent to which Aardman preserves the rights to exploit its back catalogue, and the effectiveness with it seizes merchandising opportunities. The effect on Aardman’s value is fairly substantial; a one percentage point increase in growth in ancillaries sales adds approximately £1 million to Aardman’s value.

Each scenario yields a stream of future cash flows. To find the value of Aardman’s equity in each scenario we must discount these cash flows back to the present at Aardman’s cost of capital, sum them, and deduct net debt. The cost of capital reflects the degree of risk faced by a business – the higher risk, the higher the cost of capital – and the business’s capital structure. We have calculated Aardman’s cost of capital in the usual way, by calculating the riskiness of stocks of comparable companies, as indicated by their equity betas, calculating the asset beta (the riskiness of the average comparable company, were it to be financed wholly with equity), adjusting the asset beta to reflect Aardman’s debt:equity ratio, and finally using the asset beta to calculate Aardman’s cost of equity and weighted average cost of capital.

Scenarios	1	2	3
Growth rate over next 10 years	5%	15%	3%
Gross margin	45%	50%	40%
2004 ancillaries: total sales	10%	10%	10%
Growth in ancillaries sales over next 10 years	10%	25%	3%
Long-run growth rate	3%	5%	0%
Administrative expenses: last year’s revenues	(30%)	(15%)	(40%)

Unfortunately there are no animation production companies currently listed on UK exchanges. However, Aardman also creates animations for TV, and we have therefore chosen as comparables two listed TV production companies, Shed and RDF[18]. Their equity betas are 1.48 and 2.18 respectively – high, as one would expect from businesses operating in a volatile sector. Since Shed has no, and RDF very low, long-term debt, we take their equity betas to be their asset betas. Hence the average asset beta of Aardman's comparables is 1.83.

Aardman has net debt of £5.1 million (long-term debt net of surplus cash). We make the simplifying assumption that Aardman's target debt:equity ratio is 15:85 (i.e. debt is 15% of enterprise value). This implies that Aardman's equity beta is 2[19]. Assuming a risk-free rate of 4.5% and a market premium of 5%, Aardman's cost of equity is 14.5%[20]. Assuming Aardman's weighted average cost of debt is 7%, Aardman's cost of capital is 13%[21].

The value of each scenario is as follows:

Scenario	**Average**	**Favourable**	**Challenging**
Present value of future cash flows	19,791	89,131	3,365
Debt	(12,925)	(12,925)	(12,925)
Excess cash	7,801	7,801	7,801
Minorities	(233)	(233)	(233)
Equity value	**14,434**	**83,774**	**0**
Weight	33.3%	33.3%	33.3%
Expected value	**4,811**	**27,925**	**0**

[18] This is a somewhat unsatisfactory choice, since Shed and RDF have both been listed for barely a year. Ideally, we would want five years' worth of monthly returns to calculate betas.

[19] Equity beta is found with the formula $\beta_{Equity} = \beta_{Asset} * [1 + (1-T) * (\frac{D}{E})]$
where T is a tax rate of 30%. This gives 1.83 * [1+ (1-30%) * (15/85)] = 2.05

[20] The formula for the cost of equity is $r_{Equity} = r_{Risk\text{-}free} + \beta_{Equity} * (r_{Market} - r_{Risk\text{-}free})$
This gives 4.5% + 2 * 5% = 14.5%

[21] Weighted Average Cost of Capital = $\frac{E * r_{Equity}}{V} + \frac{D * r_{Debt}}{V} * (1-T)$

This gives 0.85 * 14.5% + 0.15 * 7% * (1-30%) = 13.06%

Aardman carries large amounts of cash on its balance sheet, and we assume that a portion of this is surplus to operating requirements, hence we deduct it from outstanding debt to arrive at the equity value. Also note that in the Challenging scenario the value of Aardman's net debt exceeds the value of future cash flows, but since equity can never be worth less than zero the equity value in this case is zero.

The value of Aardman's equity ranges in the three scenarios from 0 to £84 million. Assigning a subjective weight of 33.3% to each scenario gives an expected equity value of £33 million. This is a highly respectable number, although when compared to the total value created by *Chicken Run* it may be surprising that it is not higher still. The reason lies, in large part, in industry structure. A substantial proportion of value is captured by other players in the value change: Dreamworks in this case.

Of course the Aardman exercise is simply illustrative, and the scenarios we chose were somewhat arbitrary. If we were valuing Aardman for real we would need to collect a lot more information, along the lines suggested above. Nonetheless, the very wide range of values under different scenarios is interesting, and is typical for this sort of firm. We weighted the scenarios equally, but in practice, different scenarios are of particular relevance to different investors. An industry player making a strategic acquisition might be able to unlock the synergies implied by the Favourable scenario; the valuation under that scenario implies what the firm might be worth to them. But a 'financial' acquirer who was unable to achieve any of the improvements in sales performance and cost reduction which drive this value, would be likely to focus on the Average and Challenging Valuations. Our overall estimate of expected value is sensitive to the weight we assign to each scenario and of the probability of Aardman being acquired in the future by these different types of acquirer.