Briefing

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booz&co.

The Impact of U.S. Internet Copyright Regulations on Early-Stage Investment
A Quantitative Study

PREFACE

The world has benefited enormously from an impressive level of growth and innovation over the past several decades. Since the beginning of the Internet age, a mere two decades ago, society has grown to expect accelerating growth in technology and innovation. Thanks in part to this rapid rate of change, lawmakers have relied heavily on self-regulation rather than government enforcement and compliance as a means of controlling the growth of the Internet. As we move into a new era of Internet growth fueled by new and emerging technologies—including widespread broadband access, cloud computing, social media, and mobile connectivity—it will be increasingly important to understand the potential effects of regulatory changes.

One area of Internet regulation currently being debated is digital copyright. To keep up with new methods of distributing content, regulators are now evaluating several potential changes to current copyright law that could have a large impact not only on content providers and distributors but also on how users themselves interact with content. Our research goal: to understand how future regulatory changes might affect the level of early-stage investment in young companies acting as intermediaries for digital content.

New startup companies have long been an important driver of innovation and economic growth in the U.S., and few of them would have grown to maturity without the early-stage financing that allowed them to bring their ideas to the marketplace. It was our research hypothesis that this financing, which comes primarily from angel investors and venture capitalists, might be greatly affected by the regulatory environment; our study looks to test empirically how particular copyright regulations might affect this. Though there are many players who may be affected by potential copyright regulations, including the holders of copyrights themselves, we focused on digital content intermediaries, given their importance in the value chain and their potential as engines of innovation in the Internet content space.

To understand how early-stage investors might react to new regulations, we took a direct approach, one that to our knowledge has never been tried in a systematic way—we asked them. We surveyed almost 200 angel investors and interviewed more than 20 prominent venture capitalists to determine their sentiments regarding a variety of potential regulatory changes. It is our hope that this study will leave readers with a clear sense of how changes to the current copyright regulatory regime might affect early-stage investing.

This report is one of two on U.S. investment attitudes toward Internet companies. The other report focuses on privacy regulations and is titled *The Impact of Internet Privacy Regulations on Early-Stage Investment:A Quantitative Study for the U.S.* Additionally, Booz & Company has published two reports examining the impact on early-stage investment in the European Union of Internet copyright and privacy regulations.

This report was financed by Google Inc., and independently researched and written by Booz & Company.

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This report was financed by Google Inc., and independently researched and written by Booz & Company, drawing on expertise from its consumer, media, and technology practice, and also on academic and public research, publicly available information, and primary research.

EXECUTIVE SUMMARY

Over the past 20 years, the world has been transformed by the emergence and meteoric growth of the Internet. It is estimated that the Internet has represented 3.4 percent of global gross domestic product (GDP) and 21 percent of GDP growth in mature countries over the past five years. As the Internet continues to grow, however, further investment will be needed to support the creation of new technologies in social media, mobility, cloud computing, and the streaming of video and audio content.

The companies at the heart of these innovations depend heavily on early-stage investment from angel investors and venture capitalists (VCs) alike. These two critical groups invest an estimated US$20 billion and $23 billion, respectively, into early-stage companies in the U.S. annually, while also providing mentoring advice to entrepreneurs.

The ease with which digital content of all kinds—news, music, videos, even entire books—can be copied and redistributed has raised important issues. An important voice has been the government, which has played a critical role in setting copyright legislation and jurisprudence in tandem with the technological advances of the Internet.

Leading lawyers in interviews have told us that the government's involvement in copyright issues may move in one (or more) of four potential directions:

1. Decreasing the cost and complexity of obtaining licenses. *An integral function of copyright law is the granting of licenses. Changing this process could have important consequences for rights holders and content distributors alike.*

2. Reducing legal ambiguity concerning the likelihood of lawsuits and the size of damages in the event of liability. *Some aspects of copyright law are as young as the Internet itself, and thus, many argue, still very ambiguous.*

3. More actively prosecuting pirates. *A common method of deterring piracy has been direct prosecution of pirates themselves. Despite many steps in this direction in the past, the potential for expanding these efforts remains.*

4. Holding websites and content intermediaries responsible for copyright infringement. *Proposed legislation would hold the intermediaries that redistribute content liable for the activity of their users. These companies would be required to screen and filter content and could be held responsible for any ensuing copyright infringement.*

Any of these regulations has the potential to affect a wide range of Internet-based companies—most notably, the digital content intermediaries (DCIs) that provide search, hosting, and distribution services for digital content. They generate value for content producers by reducing the costs of distribution and allowing many artists to monetize the content they create more easily. And they provide consumers with access to a greater variety and volume of content, as well as an improved consumption experience.

We undertook this empirical, quantitative study to understand better how potential changes to copyright regulations might affect angel and venture capital investment

in DCIs. In the course of preparing the study, we surveyed 189 U.S. accredited angel investors and interviewed 24 prominent venture capitalists. In sum, our principal findings support the following points:

- *Increasing liability for content providers would have a greater negative impact on early-stage investment than would a weak economy and an increased competitive environment combined.*
- *Holding DCIs liable for the content uploaded by users would have a significantly negative effect on investment in this space, reducing the pool of interested angel investors by 81 percent.*
- *Regulations making users more easily prosecuted for copyright violations would have a negative effect on investment in this space, reducing the pool of interested angel investors by 48 percent.*
- *A large majority of angels and venture capitalists support increased clarity in copyright law, especially if it would decrease the level of ambiguity surrounding the probability of facing a lawsuit in cases of copyright infringement, as well as the size of damages in the event of liability. Fully 80 percent report being uncomfortable investing in business models in which the regulatory framework is ambiguous.*

In light of these results, lawmakers might wish to consider the angel and venture capital community when contemplating new copyright regulations.

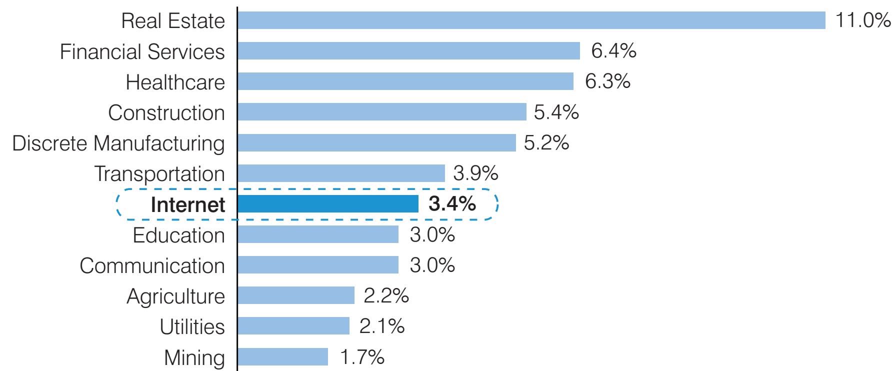
Chapter 1
BACKGROUND ON INTERNET GROWTH

The creation of the global Internet infrastructure and of the vast array of companies offering products and services that leverage its connectivity has transformed our world over the past two decades. In this short period of time, the Internet has grown from a resource for a handful of scientists and researchers to an essential medium for more than 2 billion users worldwide. Its rapid growth has also generated enormous economic value for the global economy; indeed, it is estimated that the Internet contributes as much to worldwide GDP as many other, far more mature sectors of the economy, including agriculture, utilities, and mining (*see Exhibit 1*).

Moreover, the Internet has dramatically changed the way information is collected, distributed, and used. Most Americans now believe that not having high-speed Internet access at home would put them at a disadvantage in terms of their careers, their health, and the overall richness of their lives (*see Exhibit 2*).

Exhibit 1
Global Internet Value as a Sector, Compared with Other Sectors

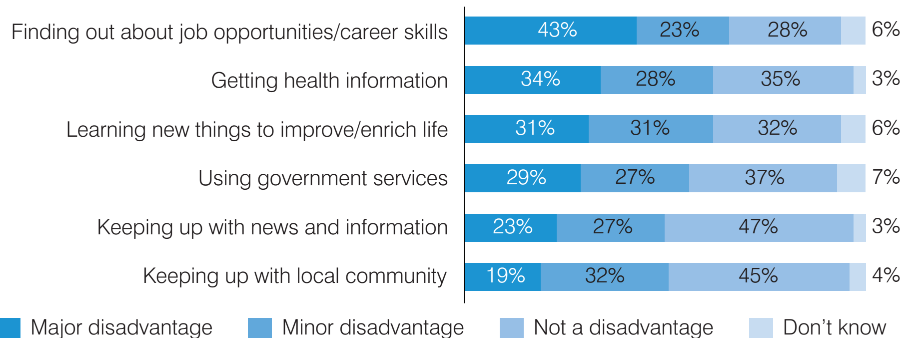
CONTRIBUTION OF SELECTED SECTORS TO GDP
(% OF TOTAL GDP, 2009)



Note: Figures represent the following 13 countries that account for 70 percent of global GDP: Brazil, Canada, China, France, Germany, India, Italy, Japan, Russia, South Korea, Sweden, the United Kingdom, and the United States.
Source: Organisation for Economic Co-operation and Development; McKinsey Global Institute

Exhibit 2
The Effect of a Lack of Broadband Access at Home on Various Activities

IMPACT OF NOT HAVING BROADBAND ACCESS ON SELECTED ACTIVITIES IN THE U.S., 2010



Source: Organisation for Economic Co-operation and Development

As the Internet continues to evolve, and its influence increases, further investment will be needed to support that growth. Fast-emerging technologies and platforms such as social media, the cloud, mobile access, and "big data"—most of which barely existed as recently as a decade ago—are now expected to drive the Internet's future growth. Estimates place the annual value of big data to the U.S. healthcare sector alone at $300 billion,[1] and the proliferation of 4G networks is expected to account for as much as $150 billion in annual GDP, partly by further enabling the continued growth of social media, the cloud, and mobility (*see Exhibit 3*).

Twenty years ago, when the Internet first emerged in the public sphere, it garnered less scrutiny from policymakers and regulatory bodies—in part because its technological complexity and rapid evolution made it difficult to devise and enforce regulations. Thus, many of the regulatory frameworks that were created at the time relied more on self-regulation than on government-mandated oversight or compliance. For example, the notice and takedown standards in the Digital Millennium Copyright Act (DMCA) regulations placed the burden on companies to find practical, efficient means of protecting their customers' rights while at the same time providing the goods and services their customers demanded.

As the Internet grows and its impact on society increases, however, the pressure to regulate it will likely increase. The manner in which governments handle this issue will have a lasting impact on how the Internet evolves.

One key area in which policies and regulations are likely to have a significant effect is at the intersection of the Internet and early-stage capital investment. The next phase of the Internet's development will require the contributions of many parties as new technologies are developed and launched and as new products and services are introduced. As in the past, a major factor will be the new and emerging companies that fuel innovation—and which typically require startup and early-stage capital to survive. The majority of this capital will come from the private markets and, particularly, early-stage investors—the angel investors and venture capital firms with the skills to support the growth of new businesses and the willingness to risk the money needed to help them grow.

Exhibit 3
Incremental Impacts of Investment in 4G Networks, 2012–16

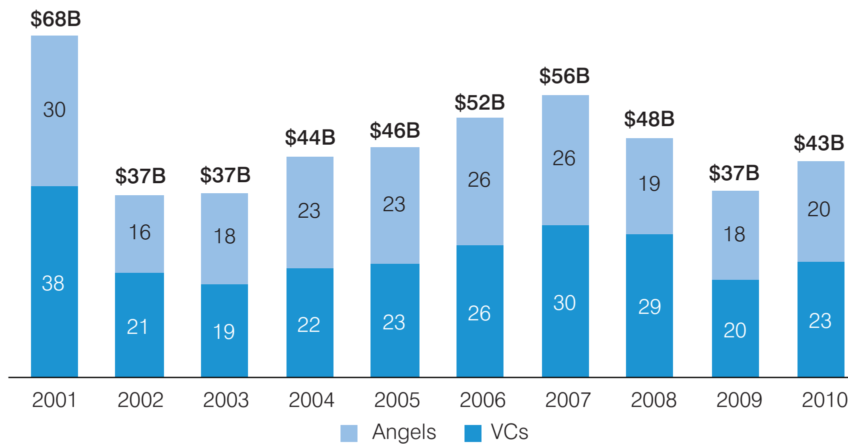
	BASELINE $25 BILLION INVESTMENT	$53 BILLION INVESTMENT
GDP	$73 billion	$151 billion
Jobs	371,000	771,000

Source: Deloitte

Chapter 2
ANGELS AND VENTURE CAPITALISTS

To determine the impact of the regulatory environment we have focused our study on understanding how the early-stage investment community—particularly angel investors and VCs—might react to potential regulatory changes. Angel investors and VCs play a critical role in the capital markets, providing early financing to new companies that otherwise would find it difficult to secure funding.[2] Taken together, angel investors and VCs are the primary source of this entrepreneurial funding, investing nearly $43 billion in the U.S. in 2010 alone (*see Exhibit 4*).[3] In fact, angels and VCs were early investors in many companies that are household names, including Apple, Cisco, Dell, eBay, Facebook, Google, Intel, and Microsoft.[4]

Exhibit 4
Early-Stage Investments by Angels and VCs



Note: Numbers may not add up due to rounding
Source: National Venture Capital Association; Center for Venture Research

Though VCs may be the more familiar of the two, it is actually the angels that provide the majority of the earliest funding for new ventures, with the VCs typically investing in later rounds (*see Exhibit 5*).

Indeed, angels are the most active investors in seed and early-stage startup businesses, contributing as much as 80 percent of seed and startup capital for high-tech entrepreneurial ventures.[5] In 2010, 265,400 individual angels invested in 61,900 new ventures, for a total of more than $20 billion in invested capital, almost equal to the total amount invested by VCs.[6]

In addition to injecting capital, angel investors often play a hands-on role in the deals they invest in by providing entrepreneurs with mentoring, business advice, and contacts. It has been suggested that these "softer" benefits of angel investing can have as great an impact on the success of a startup as the funding itself.[7] Their many contributions, both financial and managerial, make angel investors a critical part of the entrepreneurial finance landscape.

VCs also play a critical role in providing capital for entrepreneurs. They typically invest during the later stages of a startup's growth, and often make much larger individual investments. And they usually play a similarly important hands-on role in the companies in

Exhibit 5
Equity Capital for Entrepreneurs, by Funding Stage

EQUITY CAPITAL FOR ENTREPRENEURS

Stage	Pre-Seed	Seed/Startup	Early	Later
Source	(1) Founders	(2) Angels/Angel Alliances		(3) VCs
Demand (per deal)	$25K–$100K	$100K–$2M	$2M–$5M	$5M+

Observations

1. Initial funding is typically provided by entrepreneurs and "friends and family." The maximum amount of this capital is on the order of $100,000.
2. Angel investors or angel groups typically provide the bulk of the "seed" or "early stage" capital in the next round.
3. VCs generally invest in later rounds after one or more rounds of angel investment.

Source: Jeffrey E. Sohl, "The US Angel and Venture Capital Market: Recent Trends and Developments"

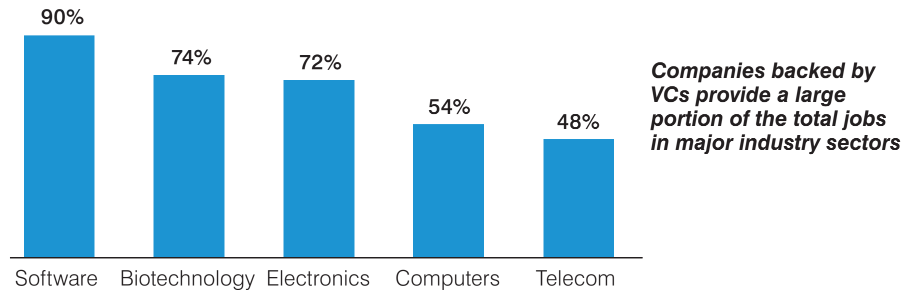
which they invest.[8] VCs have historically invested heavily in startups in various technology sectors, including software, electronics, and computers. A large percentage of the jobs created in these sectors can be attributed to these startups (*see Exhibit 6*).

Indeed, the impact that VC-funded companies have had on the economy across all sectors in the U.S. has been substantial: Revenue from VC-backed companies accounts for 21 percent of total GDP, and employment at these companies accounts for 11 percent of all U.S. jobs.[9]

Given the key role that angels and VCs play, not only in funding new companies but also in working with them to promote their success, their continued willingness to invest is critical to the future creation and growth of new companies. In producing this Booz & Company study, we surveyed nearly 200 angels to understand better how potential regulatory changes might affect their investment behavior, and interviewed more than 20 prominent venture capitalists to gain a more qualitative perspective on their views.

In this study, we have chosen to concentrate on digital copyright laws and regulations. Digital copyright is a timely issue, given recent court rulings and contemplated legislation, and it is particularly relevant to technology companies—an important area of focus for early-stage investors.

Exhibit 6
VC-Created Jobs in Major Industry Sectors



Source: National Venture Capital Association

Chapter 3
THE CURRENT AND FUTURE COPYRIGHT LANDSCAPE

Today, the Digital Millennium Copyright Act ("DMCA") governs compliance and enforcement of U.S. digital copyright law. Passed in 1998, the DMCA provides protection against charges of copyright infringement under its "safe harbor" clause. In brief, ISPs, companies that host content, and information location tools (like search engines and directories) are not expected to actively monitor their systems for copyright infringement. Instead, the company must respond "expeditiously, to remove, or disable access to the material that is claimed to be infringing or to be the subject of infringing activity," if they are to receive the "safe harbor" protections. The user who originally posted the content can then send a counter-notice claiming the content was actually legitimate and non-infringing.

To understand angel and VC sentiment, we needed to focus on specific aspects of the regulatory environment. We spoke with experts and copyright attorneys at leading law firms to identify the important characteristics of the existing legal framework and categorize the major directions of copyright law. The following scenarios are by no means exhaustive; nor are they mutually exclusive; indeed, it is possible that they could occur in any combination. They include: (i) the ease of obtaining licensing agreements, (ii) the complexity in existing laws, (iii) greater prosecution of end users in violation of copyright law, and (iv) holding websites liable for copyright infringement.

Licensing Agreements

At present, a digital content intermediary seeking to distribute content must negotiate a license with one of two parties: the individual who holds the copyright, or several separate parties that collectively control the copyright, which might include the original artists or composers, publishers such as record labels and studios, broadcasters and retailers, and collecting societies.

Ordinarily, seeking a license from an individual copyright holder is not a problem. However, in the case of so-called "orphan works"—copyrighted content whose copyright holder cannot be found—licensing the content can be difficult or impossible.

The second source for obtaining a license—a network of parties, each of which must approve the license—involves having to determine the appropriate parties with whom to negotiate, and often having to deal with several parties independently of one another. Moreover, a single piece of content may have different types of copyrights, each held by different parties. This is often the case with musicians who hold the mechanical rights to their songs but sell the publishing rights to record labels or others.

The complexity in the current copyright situation may create three issues. First, it can be costly—obtaining rights often requires expensive experts and legal counsel. Second, it can take a long time to acquire rights. Third, the uncertainty of success can deter license-seekers from beginning the process in the first place.

Legal Clarity

Once a DCI obtains a copyright license, it still faces a great deal of uncertainty, due to the possibility of being taken to court, and the potentially enormous penalty if the court rules against it.

Several recent court rulings have increased that uncertainty. The settlement arising from Universal Music and EMI's lawsuit against venture capital firm Hummer Winblad raised

questions about how far liability can be extended—in this case, of investors being liable for copyright infringement by their portfolio companies. Another case, Blue Nile, Inc. v. Ideal Diamond Solutions, raised the question of the power of the corporate veil. In that ruling, the court held that company management can be held personally financially liable even if they were unaware of the company's infringement. Copyright law allows plaintiffs to elect to receive statutory damages (instead of actual damages) that can range from $750 to $150,000 for each violation. In cases of online piracy, in which songs or movies might be copied thousands of times, the damages can quickly reach the millions or even billions of dollars.

These potentially large damages, combined with recent court rulings, contribute to uncertainty in the level environment.

Prosecuting Users

Film and TV studios and record labels, among others, have directed lawsuits against individual violators who download or distribute content without a license. In such cases, the burden of proof is high, and cases can last months or even years.

Another impediment to legal recourse against individual violators is jurisdictional. Infractions committed across borders are far more difficult to enforce. Overseas pirates have long been able to hide behind conflicting national laws and regulations as they benefit from the borderless world of the Internet to reach users everywhere.

Website Liability

The safe harbor clause of the DMCA currently protects DCIs from litigation if they are unaware of infringing content and make their best efforts to remove disputed content. Liability for infringement could be shifted to DCIs by mandating that they implement preventative measures—such as screening content as, or shortly after, it is uploaded to their sites—to avoid infringement. As such, DCIs would be considered party to the copyright infringement and thus have to pay damages when found to have infringed. Similarly, liability could be extended to ISPs, making them responsible for filtering the content they aggregate and thus financially accountable in the event of copyright violations.

This would require DCIs and ISPs to implement a monitoring system that scans and tracks all content that has been uploaded. While such systems are uncommon today, there are already some in existence. YouTube, for example, has instituted on its own what it calls the Content ID System. As video is uploaded to the site, the Content ID System compares it to a library of copyrighted video content voluntarily provided by copyright owners. If the uploaded content matches any content in the library, the system flags the video. Once a video is identified as potentially infringing, YouTube notifies both the poster of the content and its copyright owner, and expedites the process of determining the legitimacy of the content. Now used extensively by YouTube, this solution came at a reported $30 million price tag and took more than 50,000 hours to develop.[10]

Other websites, including Facebook, use systems similar to YouTube's Content ID. While application of these types of systems is not currently mandated by the government, the private sector has already begun implementing them on its own.

Chapter 4
THE DCI BUSINESS MODEL

To assess angel investor sentiment about the effects of potential regulations, we focused on investment in digital content intermediaries because they play an important role in the distribution of digital content and garner much attention in today's dialogue around the Internet.

DCIs are a broad set of companies that provide hosting, distribution, and search capabilities for all kinds of digital media. They may include websites (such as Google's YouTube), desktop or cloud software (such as Apple's iTunes), digital forums (such as Craigslist), peer-to-peer software programs (such as BitTorrent), and even some Internet-based physical distributors (such as GameFly and Netflix). DCIs typically distribute content that is either created by professionals, such as professional musicians and movie studios, or generated by users, such as personally uploaded blogs, photos, and videos.

In the ordinary course of business, DCIs provide value to consumers in two ways. First, they serve as a cheaper means of distribution than traditional outlets like music and video rental stores.[11] This means that it is much easier for artists to get their content distributed[12] and that a great deal more content is available to consumers.[13] Second, they can improve the consumption experience itself, through features like personalized recommendation systems and forums where consumers can share experiences and reactions.

Much of the cost advantage of distribution through DCIs can be attributed to the fact that they do not have to bear many of the traditional costs of manufacturing, packaging, and distribution (including shipping, storage, and inventory) and retail sales costs, such as the labor, insurance, real estate, and other overhead costs associated with bricks-and-mortar stores. Indeed, DCIs have been shown to reduce the costs of content distribution and marketing for the music, film, and software industries by cutting physical distribution steps and shifting marketing outreach to consumer-based viral efforts.[14]

Manufacturing, distribution, and retail sales costs make up an estimated 55 percent of the undiscounted price of a typical music CD, for example. Artists, it is estimated, typically receive 12 percent in royalties—out of which they must pay other costs, including promotions, packaging, and retailer returns. As a result, somewhere between 500,000 and 1 million CDs must be sold for an artist to break even. At least 90 percent of artists receive no royalties at all from their CD sales.[15]

Musicians have found ways to reduce costs on their own. Firms like Bandcamp, FanBridge, ReverbNation, and Topspin Media help musicians market directly to fans, sell music online, and sell band paraphernalia as well. All of these activities help to lower the costs of producing and marketing CDs.[16]

Not only do the lower distribution costs lead to lower prices for consumers, but for the first time, they permit access to a wealth of content that was otherwise too expensive to supply.[17]

DCIs also offer content producers a number of new ways to monetize their content. Google AdSense, for example, allows website authors to add advertising banners and immediately begin earning revenue from visitors. YouTube allows copyright holders to earn advertising revenue from videos streamed on its site. These means of monetization

do not require relationships with publishers, whether they are studios, record labels, or publishing houses, and they are available to anyone.

The further advantage for consumers—improving the consumption experience itself—depends in large part on the network effects many DCIs have created. Crowdsourcing—the generation of collective information from large groups of people—allows DCIs to analyze vast swathes of consumer data. From this data emerge insights on consumer needs and preferences not gleaned from bricks-and-mortar venues.

Netflix's recommendation engine, for example, suggests movies for users based on their stated preferences and the movies they, and thousands of other users, have watched in the past. Facebook places advertisements tailored to each user based on the stated interests and pastimes of that user and his or her collection of friends. iTunes identifies top-rated and downloaded songs, while Spotify allows users to share their music playlists with one another and make suggestions.

DCIs have evolved to provide distinct value to consumers and content producers. They reduce producer costs and allow for immediate monetization for artists. Consumers have benefited from an increase in the pool of artists and content available as well as from a richer consumption experience.

Chapter 5
EMPIRICAL FINDINGS

The key goal of this study is to understand how changes to copyright law and regulations might affect levels of early-stage investment in digital content intermediaries. To that end, we surveyed 189 angel investors and interviewed 24 venture capitalists regarding their attitudes toward the current and future status of copyright in the U.S. (*for a more detailed description of the methodology, see Appendix*).

Our study finds that investors prefer a clear regulatory regime to an ambiguous one. Especially when that ambiguity increases the costs of compliance or the uncertainty of the size of damages in the event of noncompliance. Moreover, changes in copyright regulations that would increase liability for either users or websites would have a negative impact on investment. In addition, a change in the licensing environment that provided DCIs with easier access to licensed content would increase investment in the space.

In this section we examine the results as they relate to four specific aspects of the copyright regulation landscape: regulatory ambiguity, access to licensed content, user liability, and DCI liability.

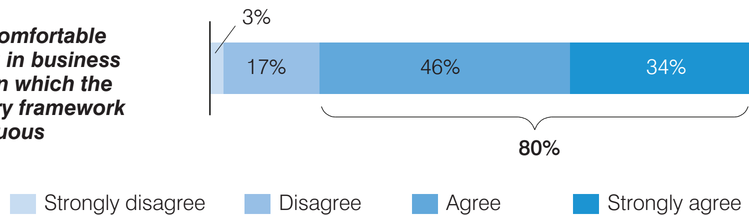
Regulatory Ambiguity

Fully 80 percent of the angels we surveyed said they are uncomfortable investing in an area with an ambiguous regulatory framework (*see Exhibit 7*). These results are consistent with the findings from our interviews with VCs, a substantial majority of whom reported that the current regulatory environment has had a negative effect on innovation.

Similarly, a clearer legal environment that would limit the risks of lawsuits and the size of potential damages would increase the willingness of investors to consider the space.

Exhibit 7
The Impact of Regulatory Ambiguity on Angel Investors

80% OF INVESTORS ARE UNCOMFORTABLE INVESTING IN BUSINESS MODELS BESET BY REGULATORY AMBIGUITY

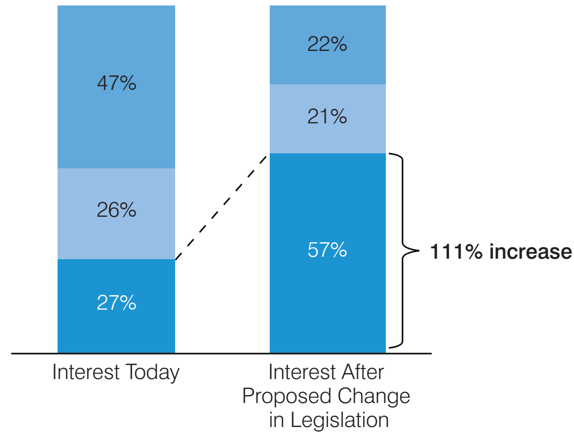


Source: Booz & Company analysis

The pool of investors interested in investing in a particular DCI would increase by nearly 111 percent if copyright regulations were clarified to allow websites to resolve legal disputes quickly, thereby lowering their cost to comply with regulations (*see Exhibit 8*). By the same token, limiting penalties for websites acting in good faith would also increase the pool of interested investors by 115 percent (*see Exhibit 9*).

Exhibit 8
Change in Interest if Disputes Could Be Resolved Quickly

Clarifying copyright regulations to allow websites to resolve legal disputes quickly would expand the pool of interested investors by 111%

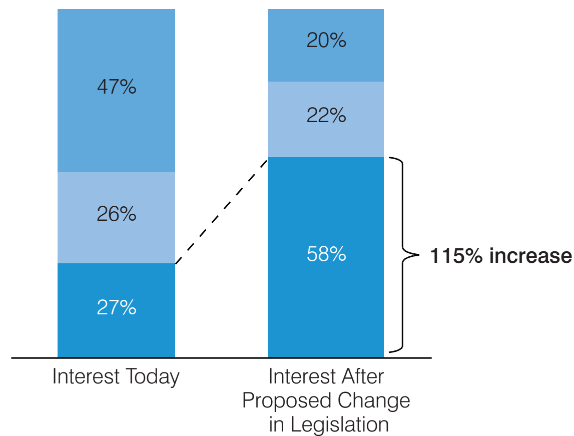


On a scale of 1–7: 1–3 = not interested 4 = neutral 5–7 = interested

Note: Numbers may not add up due to rounding
Source: Booz & Company analysis

Exhibit 9
Change in Interest if Penalties Are Limited

Limiting penalties for websites acting in good faith would expand the pool of interested investors by 115%



On a scale of 1–7: 1–3 = not interested 4 = neutral 5–7 = interested

Source: Booz & Company analysis

Potential damages have an effect on respondents' willingness to invest in DCIs; 89 percent said uncertain and potentially large damages made them uncomfortable with investing in DCIs (*see Exhibit 10*).

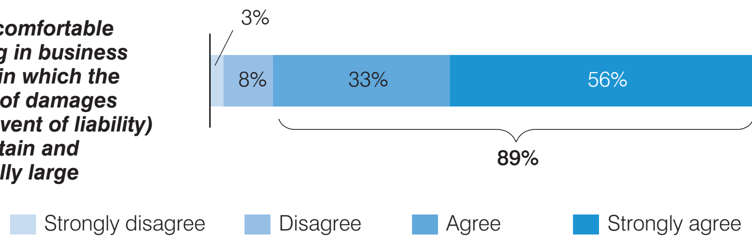
These results suggest that legal ambiguity in general deters investment. Furthermore, our study shows that greater clarity surrounding the current regulatory framework in copyright, specifically as it relates to limiting damages for website operators acting in good faith and allowing them to resolve litigation more easily, could have a positive impact on investment in DCIs.

Access to Licensed Content

Just as increased regulatory clarity has a positive effect on investment, better access to licensed content is likely to improve the investment environment. We asked survey respondents if they would be interested in investing in a particular DCI, and then asked if their attitude would change if regulations were altered to decrease the cost and complexity of obtaining licensing agreements. Our study shows that the pool of respondents who were interested increased by 85 percent (*see Exhibit 11*).

Exhibit 10
Uncertain Potential Damages Make Angels Less Comfortable with Investing

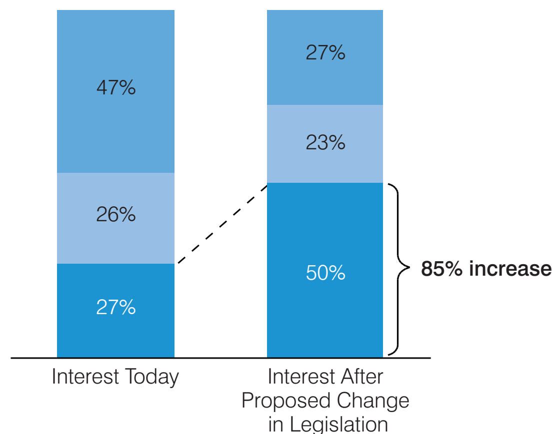
89% OF INVESTORS ARE UNCOMFORTABLE INVESTING WHEN THE AMOUNT OF DAMAGES IS UNCERTAIN AND POTENTIALLY LARGE



Source: Booz & Company analysis

Exhibit 11
Better Access to Content Increases Willingness to Invest

Decreasing the cost and complexity of obtaining licensing agreements would expand the pool of interested investors by 85%



On a scale of 1–7: 1–3 = not interested; 4 = neutral; 5–7 = interested

Source: Booz & Company analysis

This suggests that decreasing the cost and complexity of obtaining licensing agreements would increase the pool of investment funds available to DCIs.

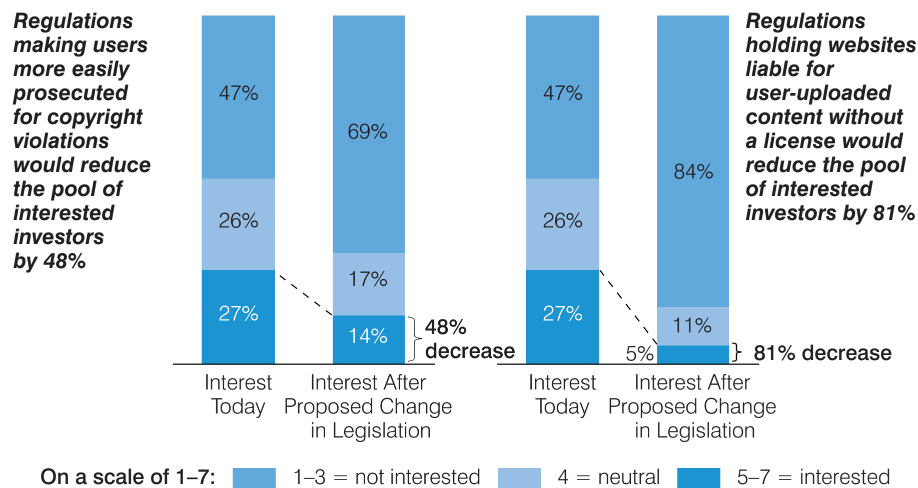
User Liability and DCI Liability

Though our results show that decreasing the cost and complexity of obtaining content licenses could increase investment in DCIs, our data suggests that increasing liabilities for users or content aggregators in cases of infringement would have a negative effect on investment. Making it easier to prosecute users for uploading content without licenses would reduce the pool of interested investors by nearly 50 percent. And holding websites themselves liable for unlicensed content uploaded by users creates an even greater change in sentiment: The pool of interested investors would decline by nearly 81 percent (*see Exhibit 12*).

These results are further supported by our interviews with VCs: Almost all interviewees said that changing regulations to remove the safe harbor protections currently afforded intermediaries would have a negative impact on investment.

The above results can be put into clearer context by considering them in terms of other factors that typically influence investment decisions, including expected returns, competition, and the economy. When angels were asked to choose an investment under a variety of conditions involving these factors, the results suggested that 47 percent of their investment decision is driven by the legal environments that were tested—roughly

Exhibit 12
Greater Likelihood of Prosecution of Users and Websites Decreases Willingness to Invest



Source: Booz & Company analysis

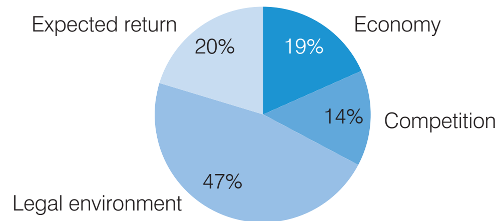
equivalent to the effect of the economy, competition, and expected returns combined (*see Exhibit 13*).

Indeed, even when offered a variety of scenarios in which trade-offs are made between a more competitive environment and a weaker economy, investors still preferred an environment in which there was no change to the current regulatory regime (*see Exhibit 14*).

Exhibit 13
Importance of Selected Variables in Making Investment Decisions

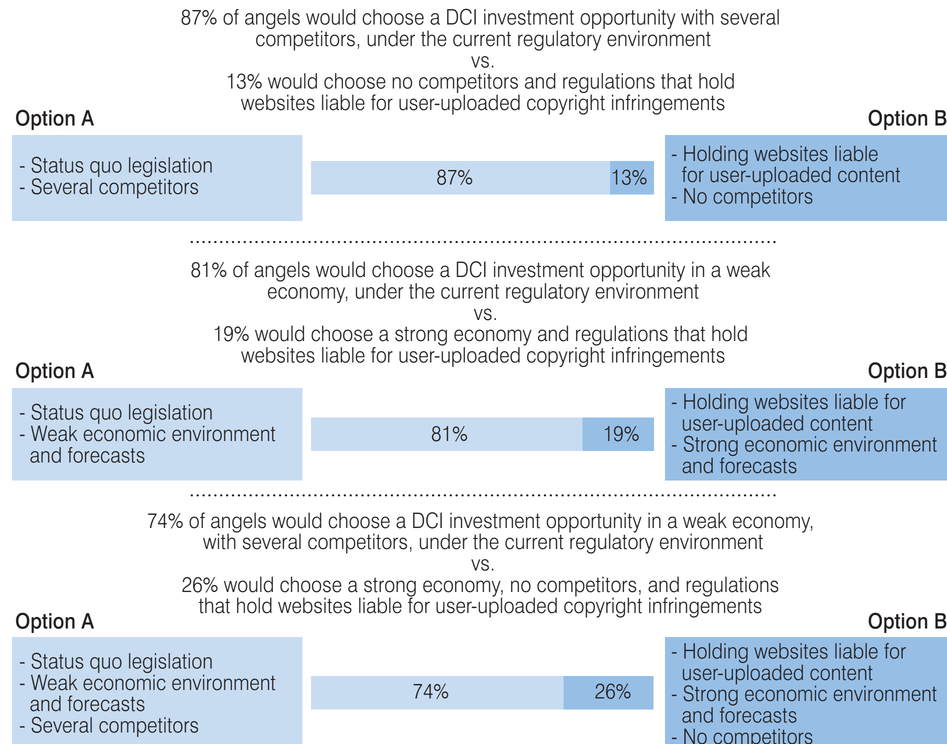
SHARES OF IMPORTANCE
AVERAGE IMPORTANCE OF EACH VARIABLE IN DETERMINING PREFERENCE FOR INVESTING ENVIRONMENT

Of the investment choices presented (legal, return, economy, and competition), legal accounts for 47% of the decision to invest in a given DCI



Source: Booz & Company analysis

Exhibit 14
Angel Head-to-Head Choices of Regulations in Different Investing Environments



Source: Booz & Company analysis

- 87 percent said they would prefer making an investment in a company with several competitors, under today's regulatory rules, compared with just 13 percent who said they would prefer no competitors but tighter regulations.

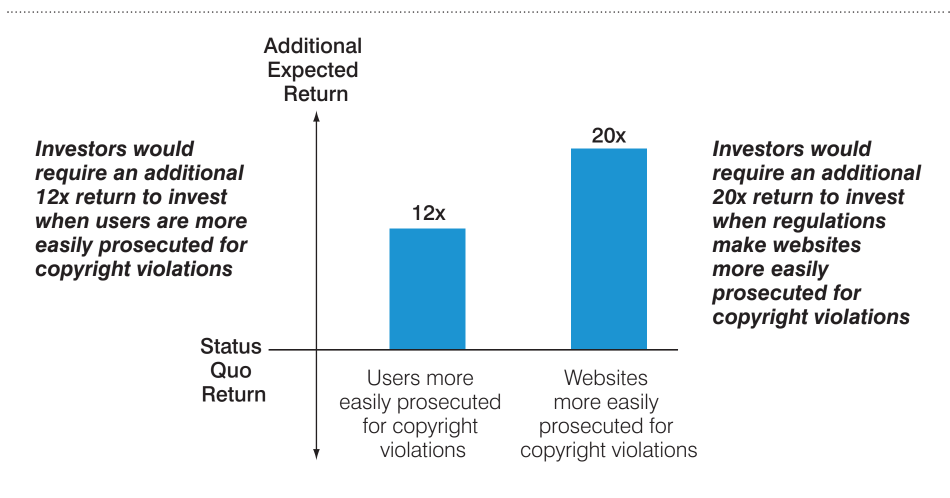
- 81 percent would prefer an investment under today's regulatory rules and a weak economy, compared with 19 percent who would prefer a strong economy but tighter regulations.

- 74 percent would prefer an investment with both several competitors and a weak economy, under today's regulatory rules, compared to 26 percent who would prefer no competitors and a strong economy but tighter regulations.

A closer look at the results can also provide a quantitative understanding of just how large an impact any particular regulatory regime might have compared with today's regulatory environment. As we have seen, holding either users or websites liable for uploaded unlicensed content would have a negative impact on investment. In order to overcome their reluctance under such circumstances, investors would demand an expected return of an additional 12x their original investment in order to feel indifferent about investing in either an environment where users are held liable for uploaded unlicensed content or the current state of copyright regulation (*see Exhibit 15*).

According to estimates by the Kauffman Foundation, the average return on angel investments is roughly 3x.[18] Thus, an investment would require a return of 15x in order to generate the same sentiment from investors in a regime in which users are held liable for uploading unlicensed content. The effect is even greater with respect to holding the DCIs themselves liable, as this would require an additional 20x the original investment (which would translate to an expected return of 23x) in order to make the potential investment comparable to investing in the same company under current copyright regulations. In short, investors strongly prefer the current regulatory regime and are likely to reduce their investments in DCIs under a regime in which either users or websites are held liable for uploading unlicensed content.

Exhibit 15
Incremental Expected Returns Required to Make Investors Indifferent to Proposed Regulatory Environments

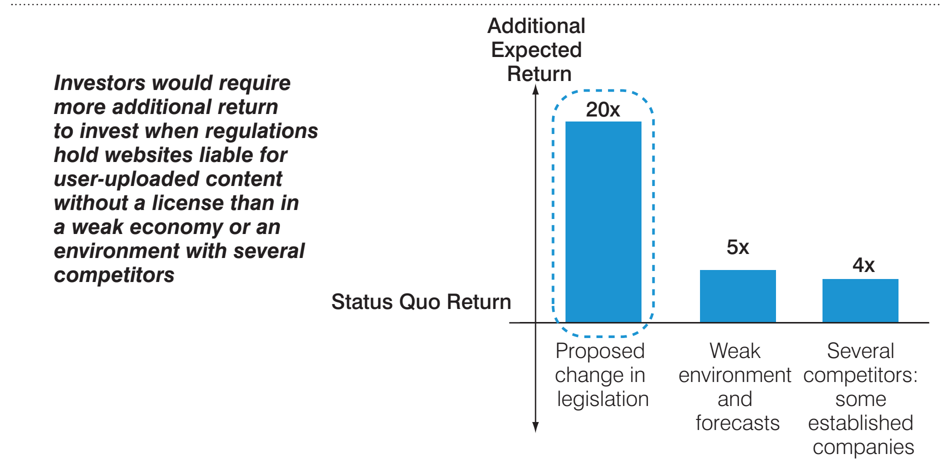


Source: Booz & Company analysis

Moreover, our study shows that investors would demand significantly higher returns to move from the current regulatory environment to a copyright regime in which users or DCIs could be held liable for uploaded licensed content than they would to move from an "average" economy to a "weak" economy or from an environment with few competitors to one with several (*see Exhibit 16*).

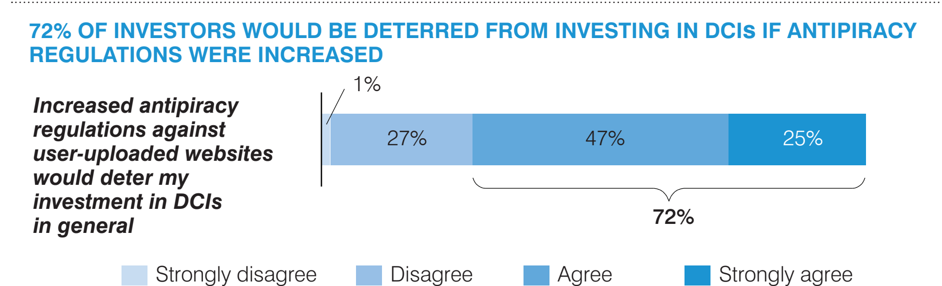
Finally, we looked at the impact of increased antipiracy regulation on the willingness to invest in DCIs, under the assumption that it might lead to an increase in liability for either users or websites. This analysis confirmed our prior results: 72 percent felt that increased antipiracy regulations would deter them from investing specifically in DCIs that offer user-uploaded music or videos (*see Exhibit 17*). This suggests that more stringent antipiracy laws would deter investment in DCIs.

Exhibit 16
Incremental Expected Returns Required in Different Regulatory Environment, Compared with Economic and Competitive Factors



Source: Booz & Company analysis

Exhibit 17
The Effect of Greater Antipiracy Regulation on Investor Willingness



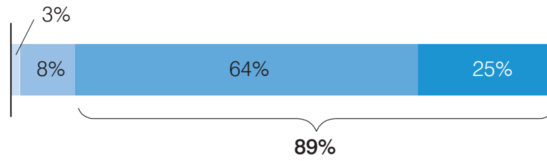
Source: Booz & Company analysis

The behavior of investors in the E.U., where copyright laws are generally more stringent, may be a preview of how the level of investment in DCIs might change under any or all of the scenarios outlined in Chapter 6. Our survey found that a substantial majority of angel investors believe the U.S. copyright regulatory framework to be a more attractive environment for investment than the E.U. regulatory framework; similarly, all of the VCs we interviewed said they would prefer investing under the regulatory environment in the U.S. (*see Exhibit 18*).

Exhibit 18
Angel Preference for Investing in DCIs Operating Under U.S. Copyright Law vs. European Copyright Law

89% OF INVESTORS WOULD PREFER INVESTING IN A DCI OPERATING UNDER U.S. COPYRIGHT LAW THAN UNDER EUROPEAN COPYRIGHT LAW

What is your initial reaction when considering whether you would prefer to operate under U.S. copyright law or European copyright law in today's environment?



Strongly prefer E.U. | Prefer E.U. | Prefer U.S. | Strongly prefer U.S.

Source: Booz & Company analysis

Chapter 6
IMPLICATIONS FOR REGULATORS

The results of our research indicate that efforts to increase the stringency of the current copyright regulation landscape would have an adverse effect on early-stage investments in the DCI space. Specifically, our findings suggest the following:

- The regulatory environment is just as important a driver of early-stage investment decisions as is the state of the economy, the degree of competition in the space, or even the expected return on investments.

- Increasing the liability of users or websites in cases of copyright infringement will likely have a greater negative effect on investment than would a weak economy or a more competitive landscape.

Given these findings, our study suggests that it is important that regulators consider the following when debating potential new regulations:

- Early-stage investment is a critical component in the formation of new businesses. The impact of new regulations on the willingness of angel investors and venture capitalists to invest should be fully understood and taken into account before new regulations holding users or content providers liable are considered.

- Reaching out to local early-stage investors will provide regulators with an opportunity to understand investors' specific assessments of potential regulations and their implications for the level of future investment. This should be an important consideration when regulators seek to determine the impact of regulatory change on their local economies and communities.

Furthermore, our study found that an unclear or ambiguous legal environment in a particular space makes early-stage investors uncomfortable about investing in that space. While the following steps were not explicitly tested in this study, it might be valuable to:

- Identify areas of copyright regulation that are particularly prone to litigation and look to clarify the regulations so that DCIs acting in good faith are less likely to be engaged in litigation.

- Assess the full set of economic implications when considering any new regulations, especially regulations that could lead to large compliance costs.

Appendix
METHODOLOGY

This study took the form of an online survey of angels and a set of interviews with prominent venture capitalists. The angel survey was designed to serve as a broad measure to quantify investing behavior, while the interviews offered a more qualitative perspective and helped add color to the otherwise purely numerical results. The interviews also helped generate hypotheses about angel attitudes, which were then incorporated into the quantitative survey. In combination, the two provide a thorough perspective on early-stage investing behavior.

We worked with Keiretsu Forum, a top angel organization, to provide us access to their membership, which consists of wealthy U.S. and international angel investors, as well as guidance on how to design and administer the survey. In addition, Keiretsu Forum connected us with more than half a dozen other angel groups, including Alliance of Angels, Angel List, Angel Resource Institute, Band of Angels, Boise Angel Fund, Dingman Angels, Harvard Angels, Oregon Entrepreneurs Network, PA Angel Network, Plug and Play Tech Center, Sacramento Angels, and Sand Hill Angels that were very helpful in allowing us to contact their members as well. This diversity of groups allowed for a more geographically diverse sample and helped increase the sample size.

A total of 189 angels, all of them self-identified as U.S. accredited investors, completed the Web survey and were verified as valid respondents. Incomplete and duplicate responses were removed, as well as those from respondents who spent less than five minutes on the survey, as this was deemed too short a time to have completed the survey thoughtfully; the mean response time was 17 minutes. (A copy of the entire survey is available on request.)

In addition to our standard analysis of the results, we also conducted what is called a conjoint analysis to arrive at some of our results. This is a statistical modeling technique used to gauge the value of discrete components of a complex value proposition or decision. Conjoint analysis is particularly valuable for understanding *trade-offs* among attributes, and thus can provide insights not otherwise captured through the answers to direct questions.

For the conjoint section of the survey, respondents were presented with an investment in a hypothetical DCI. We held constant the internal variables of the investment, such as the company's business description, management team, capital structure, financial situation, and exit strategy. We then varied several external variables relating to the investing environment, such as the state of the economy, degree of competition, legal environment, and expected return. By forcing respondents to choose among different scenarios, we were able to tease apart statistically the underlying preferences through the observed trade-offs. The results are shown in Chapter 5. (A more complete description of how we conducted the conjoint analysis is available on request.)

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