



Information | Innovation | Intangible Economy

Maximizing Intellectual Property and Intangible Assets

Case Studies in Intangible Asset Finance

Ian Ellis

Athena Alliance

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Athena Alliance

www.athenaalliance.org

Athena Alliance 911 East Capitol St., SE Washington, DC 20003
www.athenaalliance.org | info@athenaalliance.org

About Athena Alliance

[Athena Alliance](#) is in the vanguard of identifying, understanding, analyzing, and educating on the information, intangibles, and innovation (I³ or I-Cubed) economy. Information, knowledge, and other intangibles now power economic prosperity and wealth creation. Intangible assets—worker skills and know-how, informal relationships that feed creativity and new ideas, high-performance work organizations, formal intellectual property, and brand names—are the new keys to competitive advantage. Intangibles and information drive innovation through a combination of formal research and informal creativity. These elements come together to fuel the productivity gains and process improvements that enhance prosperity in the 21st century.

While the economic rules have changed, public policy has not caught up. Governments are struggling with ways to utilize information, foster development of intangibles, and promote innovation and competitiveness in this new economy. Policymakers are grappling with the urgent need to frame policy questions in light of the changing economic situation.

Issues of developing and utilizing information, managing intangibles, and fostering innovation underlie discussions on a variety of subjects, such as intellectual property rights, education and training policy, economic development, technology policy, and trade policy. Crafting new policies in these areas requires infusing a better understanding of intangibles and the information economy into the public debate.

As a nonprofit public policy research organization, Athena Alliance seeks to close the gap between the changed economy and current public policy through activities to reshape the debate and craft new solutions. To these ends, we've taken part in the following recent activities:

- Worked with the District of Columbia to create an innovation-led economic development strategy.
- Co-hosted congressional policy briefings, a New York City-based conference on financial reporting and intangibles with the Intangible Asset Finance Society and a Washington, D.C.-based conference on intangible assets with the National Academies.
- Published policy reports on intangible assets, including *Reporting Intangibles* (2005), *Measuring Intangibles* (2007), and *Intangible Asset Monetization* (2008).

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About the Author

Ian Ellis is a master of business administration candidate at the University of Chicago Booth School of Business. Previously, Mr. Ellis served in several positions at the U.S. Department of Commerce in the administration of President George W. Bush, where he specialized in intellectual property and international trade policy. He has a bachelor of arts degree in political science from Cedarville University.

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Introduction and Summary

Recent advances in scientific and business innovation have rapidly transformed the world economy, creating new industries, displacing and altering older ones, and recalibrating business and commercial activity in many ways. As industry has invested in developing new technology and advancing other creative activities, the resulting intellectual capital has become a valuable asset class. Intangible assets—such as intellectual property (whether patents, trademarks, copyrights, or trade secrets), brand value, corporate reputation, franchises, and human capital—are now foundational for many companies and demand greater attention from managers and financiers.

The capital markets and financial system have transformed in response to this new wave of industrial activity. Financial firms have invented new vehicles and updated existing models to provide capital to companies with significant value in intangible assets. Indeed, the changing nature of the assets and structures of companies today presents both challenges and opportunities in the field of finance. Specifically, how financial firms treat the intangible asset class is an enormous issue for capital investment in many of today's fastest growing and most vibrant sectors of the economy.

The development of financial products based on intangible assets is not the next exotic financial vehicle. The financial products discussed in this paper are some of the most basic financing mechanisms in business. The innovation is in recognizing the value of intangible assets for corporate finance.

This paper seeks to address the primary issues in intangible asset (IA) finance facing financial firms and companies alike by profiling successfully structured and completed IA debt-and-equity deals. Specifically, case studies are presented as models for intangible asset-based lending and intangible asset-focused equity investment.

The capital markets seek to efficiently allocate capital to promising enterprises. Many of today's promising enterprises' most valuable assets are intangible. The markets' challenge is to create innovative funding mechanisms that can ensure the flow of capital to continue business development and investment in enterprises that are truly driving growth in today's economy. Companies, in turn, will be able to access capital in new ways to finance innovation and expand their businesses.

Starting with the Company Perspective

Before discussing specific intangible asset–focused financing vehicles, first consider how companies view capital-raising generally. For our purpose of examining these financing vehicles, we differentiate between small, start-up companies and large, established companies because of the inherent differences in their stages of development and their capital structures.

Companies have a broad range of financing options—from debt to equity. All things being equal, they would prefer to exclude their intangible assets (IAs)—as they would any asset—from financing arrangements to protect these valuable resources from creditors and contractual obligations. For obvious reasons, companies tend to look first for sources of collateral that will yield the highest value with the least exposure of their assets.

Companies are also apt to aggressively promote the value of their intangibles to investors when addressing valuations. For example, intellectual property (IP) is not simply a legal matter for defensive purposes. As an intangible asset, IP has real value in the marketplace and should be priced as such when debt or equity investments are arranged.

For start-up and smaller companies looking to raise capital, the first viable sources of funding are angel and venture capital (VC) investors. As discussed in detail later, a number of equity investors focus solely on intangible asset investments. Although VC fundraising is now down and VC's primary liquidation events, such as initial public offerings (IPOs) and mergers and acquisitions (M&A), have slowed¹—VC funding remains an important source of start-up capital.

Companies that do secure venture funding find they often require additional backing. A number of financial options exist, including returning to the angel/VC community for another round of equity investment. However, this can be a problematic strategy for a number of reasons for some companies. First, companies may not want to dilute current equity investors' stakes in the company by bringing in new investors. Secondly, for companies that experience negative or slow growth after initial cash infusions, the prospect of a “down round”—where new investors value the company at a lower or similar valuation compared with the original position and then base their proposed equity position on this valuation—is even more unattractive to current equity holders.

Companies may choose to pursue debt after an equity round. Debt is rarely the first option for a start-up company, apart from a few basic exceptions, such as inventory and equipment loans. Ultimately, however, debt financing is not necessarily an unfavorable initial funding option. As we attempt to demonstrate, utilizing intangibles to secure debt financing can be a viable option for start-up companies.

For companies beyond the start-up phase, debt is often a more attractive option—both to finance ongoing operations and to expand. When choosing debt, companies may opt for more traditional instruments, such as leveraging accounts receivable or inventory.

However, when considering debt options, intangible assets are a viable asset class that should be considered in capital-raising efforts.

As discussed later, pure IA-based debt vehicles do exist and have been executed successfully. The venture debt market also plays an important role for companies in this stage. Venture debt is a hybrid equity-and-debt model that allows companies to access capital in loan form while issuing warrants for equity in the company in addition to the interest paid on the loan. This structure gives the debt issuer a strong upside as an incentive to lend to an otherwise risky enterprise.

This spectrum of financing—equity, debt, and hybrids—offer smaller companies alternatives for meeting their early and mid-growth capital requirements. Intangibles can always play an important part in securing competitive terms and ensuring a proper and robust capital structure.

Larger companies, especially publicly traded firms, have different motivations and prospects for securing additional capital. These firms often find the corporate bond market and other credit-based financing more attractive than asset-based lending. Asset-based debt can be a more expensive financing option and may not be the first choice of larger companies. This reality does not diminish the value of either credit-based financing or intangible asset-based lending because each option can work for companies, depending on their size and position in the marketplace.

Initial Concerns: Monetization and Valuation

Understanding the array of monetization options for intangible assets (IAs) helps illuminate their value in the marketplace. Generally speaking, companies can externally monetize their IAs through a sale, license, or some variation or combination thereof. An entire marketplace devoted to intellectual property (IP) has grown significantly in recent years. This has boosted sale-and-licensing transactions among large and small companies and among nonpracticing entities using various business models for monetizing IP assets.² Auctions—particularly for patents—are now more commonplace, providing valuable market mechanisms, market data through auction pricing, and opportunities for liquidity events.³ In addition, some firms have contributed to the IP marketplace a greater level of depth and sophistication by offering products like patent-infringement insurance.⁴

Marketplaces for other forms of IAs operate differently. When intangible assets, such as customer relations and brand loyalty, are part and parcel of the company's ongoing value they drive acquisition activities. Likewise, the skill and intellectual capital embedded in a company's workforce may be the ultimate acquisition goal in advanced technology-sector deals.

Another monetization option for IAs is the granting of a security interest in a financial asset—an IA royalty stream or licensing revenue, for example—in exchange for capital. The standard method is through traditional debt financing, where the asset is pledged as collateral and the revenue stream is used to pay off the loan.

The newer phenomenon of securitization—a variation on the long-standing practice of securitizing mortgages and other consumer debt—may be another viable way to extract value from IAs. One of the first and most famous examples of IA securitization was for the music of David Bowie—known as “Bowie Bonds”—when marketable securities were issued and backed by the royalty stream generated by Bowie's music.⁵

Uncertainty surrounding intangible asset valuation is the most significant obstacle to greater interest and activity in IA finance. Business valuation is seen as more art than science in many quarters. Valuing a patent portfolio or the trademarks for a brand, for instance, is all the more challenging because of the inherent uniqueness of IAs and concerns about transferability from the original company.⁶

The following three valuation methods are the most widely accepted:

- Market approach, which requires comparable market transactions
- Cost approach, which assumes the expense for replacing or reproducing the entity and depreciation
- Income approach, which attempts to determine the income of the assets, considering both expenses for utilizing the assets and the revenue generated.⁷

In sale-and-licensing transactions, ultimate valuation is determined by the end result of the buyer–seller negotiations, whereby valuation methods merely inform the process and, in turn, the process informs the valuation analysis. The monetization mechanisms mentioned above created a marketplace that is providing real pricing data that are vital for valuations. Comparable transactions, or “comps,” are important market-price data points for valuation experts. Notwithstanding the uniqueness of IAs, these pricing mechanisms offer hard, quantitative evidence about the durability of IP as an asset class.

Valuation plays a different role in debt financing, based on two considerations:

- 1) Present and future cash flow for the purpose of servicing the loan repayment plan
- 2) Value to cover the investment in the event of default.

Use of some types of IA as collateral is especially problematic because, ultimately, a financial firm is concerned with the revenue-generating potential of the asset on which the firm is basing its investment in the company. This revenue generation must be able to be realized independently—even if partially from the company—if it is to be valuable in the event of default, which is of the utmost importance to the prospective creditor.

Considering these two factors, IA can be divided into two categories for the purposes of valuations: *explicit* value and *implicit* value.

Explicit value could be assigned to an IA due to present and future cash flow, such as a royalty revenue stream from a licensing agreement. *Implicit* value, on the other hand, is derived from the IA’s centrality or importance to a company, technology, or market—the monetary value realized from a prospective sale or license. Clearly, the *explicit* value is rather objective compared to the *implicit* value’s subjective or predictive nature. As a general rule, assets with explicit value tend to be those that can be borrowed against, whereas assets with implicit value tend to be targets for equity investments or hybrid debt–equity deals.

Beyond these broad characterizations, there are countless other methodologies and models employed by consulting firms, litigation specialists, and companies.⁸ In addition, the International Valuation Standards Council (IVSC) is currently developing an “International Valuation Guidance for the Valuation of Intangible Assets for International Financial Reporting Standards (IFRS) Reporting Purposes.” While these standards will only apply under current accounting rules to assets acquired from outside the company, this study, now in a comment period, provides valuable information on the accounting practices needed to properly value IAs.⁹

For financial firms, valuation and other aspects of IA lending introduce higher levels of risk due to liquidity concerns, even with the existence of companies, such as IP Recovery, that specialize in IP bankruptcy sales.¹⁰ Keith Bergelt and Edward Meintzer—former co-founders of IP Innovations Financial Services—explain that IP takes approximately six months to liquidate in the event of default, similar to fixed assets and in contrast to the three-month standard turnover for inventory and accounts receivable.¹¹

The case of SRI Sports—the company that produced, licensed, and marketed AstroTurf technologies and trademarks—is a good illustration of the issues pertaining to intangible assets in bankruptcy and liquidation. AstroTurf, originally developed by Monsanto, is a widely known technology used in sports and athletics for both outdoor and indoor artificial surfacing. SRI Sports acquired the rights to AstroTurf from Monsanto in 1994 and maintained the business until the company went bankrupt in 2004.

According to CONSOR, an intangible assets consulting firm that studied the SRI case, the IP and IAs were not given sufficient attention by either SRI management or the company's creditors. The asset portfolio included the valuable AstroTurf trademarks and patents as well as domestic and international licensing agreements. CONSOR cited in particular SRI's lucrative agreement with FIFA, the governing body for international soccer, to install the artificial surfacing on its soccer fields. Many of these assets were producing revenue from royalty licensing agreements, such as a license with a Chinese company that was generating nearly \$200,000 per year.

When SRI auctioned its intangibles through the bankruptcy proceeding, they generated less than \$1 million. But CONSOR estimates the company could have realized \$2 million to \$15 million in value, especially considering that the existing licensing agreements alone nearly totaled the value for which all the IAs were sold.¹²

The SRI Sports case illustrates how the market currently limits risk by being conservative in capital-advance rates and loan-to-value ratios (LTVs). Bergelt and Meintzer suggested that 10 percent to 40 percent LTVs were standard for IP-based lending in 2005, with the 40 percent LTVs going to IP with a positive cash flow and the 10 percent LTVs going to IP with implicit value.

In a practical sense, valuation of IP assets is subject to the broader context for the appraisal, whether for a merger or acquisition, the refinancing of a company, or the evaluation of a distressed situation. Each of these situations provides a different backdrop for the valuation, complicating the process.¹³

In cases where IAs are not counted strictly as collateral, they can be used as a credit-rating factor. Because many banks do not secure pure IA-backed loans, the bank will use the traditional credit-rating process of analyzing cash flow and accounts receivable. It might then use IAs as another factor in the credit rating or, perhaps, specify and include the IAs in the broader collateral package for a loan, such as second-lien loans and mezzanine debt. Generally, however, the traditional credit rating process subsumes intangibles, such as the quality of management, indirectly into the analysis.

Intangible Asset Finance Models

The following sections outline the array of models for equity-and-debt financing targeting intangible assets (IAs). Considering the issues presented above, companies with considerable and valuable intangible assets can utilize these vehicles to raise significant funds in the capital markets.*

IA-Focused Equity Investment

Large investment banks and boutique private equity (PE) firms alike have begun raising and investing funds targeted at intellectual property (IP) and other intangible assets. Broadly defined, these firms are targeting the traditional venture capital space, looking for promising early stage innovation and inventions. However, rather than looking for entrepreneurs and start-up companies, these firms are looking to invest in IP and IA for development and commercialization purposes, even before start up. While funds and firms often differ in structure, these enterprises work with companies to either buy the IP/IA or invest in the company for commercialization of the IP/IA.

Due to the private nature of private equity deals, many details about this group of firms and funds have not been disclosed. The large investment bank Deutsche Bank (DB), however, announced publicly that it is currently managing three IP funds totaling more than 150 million euros invested in IP assets. Partnering with IP Bewertungs AG, DB has identified and purchased IP assets for further legal and commercial refinement to be sold and/or licensed.¹⁴

Another IA-focused firm, IgniteIP, is a “full-service IP placement enterprise” that works with inventors, IP owners, and investors to commercialize and/or license IP by connecting candidates with the large-scale industry network.¹⁵ For example, IgniteIP worked with a company that developed a new mining industry technology.¹⁶ After the inventors failed to develop new business around the technology, IgniteIP invested in the company and then led the effort to commercialize it. IgniteIP evaluated the mining industry market and developed an innovation licensing model that met the needs of the mining industry clients and satisfied the return-on-investment goals for the inventors and investors.

IgniteIP’s model differs from the traditional VC model in that it paid attention to IP development nearly independent of the business itself. VCs are known for working with entrepreneurs and start-up companies to manage the initial and growth stages, often directly managing the company. IgniteIP’s model shares the VC model’s emphasis on equity, but is unique in focusing on the underlying asset in the venture.

* The details of the cases below are occasionally limited by the private nature of the transactions. Many of the firms engaged in IA finance are solely private companies and therefore do not publish much transactional information.

Blended Equity–Debt Models

A number of financial firms employ the VC equity model for financing, yet its debt focus provides entrepreneurial, start-up companies another avenue for raising capital. Venture debt blends the early stage focus of the VCs with the lending competence of banks, while structuring deals that make this blended model worthwhile for the companies and investors alike. Firms such as Silicon Valley Bank, Square 1 Bank, and Sand Hill Capital are a few leading firms that offer, among other more traditional financing options, venture debt financing that includes proper treatment of intangible assets (IAs).

In most venture debt cases, the investing firm establishes an interest rate on the debt, taking into account the viability of the company and the current funding structure, as well as the reputation of the company's current funders. Interest rates can range from prime plus 1 percent to prime plus 5 percent, with loan terms varying from 24 months to 48 months. Additionally, the firm will likely require liens on all of a company's assets. The deal will also include warrants in the company to buy shares at a fixed price.¹⁷

There is another set of private equity (PE) firms that target investments in companies with a critical focus on IP and intangible assets. These firms are not necessarily targeting raw or undeveloped IP assets for the purpose of monetizing the IP itself through licensing. Rather, these firms look for early stage or start-up companies with integral IP assets for the companies' intended markets. In essence, these firms screen their deals by looking for critical IP assets and the overall cash flow the companies generate. These models also often utilize a hybrid approach to equity investing, similar to the venture debt market.

Altitude Capital, a boutique PE firm with this model, has invested in 16 companies since the firm was created in July 2005. It invests in “portfolio companies that have valuable patents, trademarks/brands, copyrights, royalty streams, trade secrets, and other intangible assets, which will create a competitive advantage in creating value.”¹⁸ Altitude has structured a variety of transactions, providing common equity, preferred stock, and subordinated or secured debt. One of Altitude's portfolio companies, Intrinsicity, Inc., developed a key high-performance microprocessor technology—its proprietary Fast14 technology—that can embed Internet protocol cores to create “FastCores.” In December 2007, Altitude invested \$11 million in Intrinsicity, using an equity–debt combination of Class E Preferred Stock and Senior Secured Notes with warrants.¹⁹

Altitude employed a similar hybrid deal for an investment in DeepNines Technologies (DeepNines), a network security solutions provider. DeepNines technology is secured by patented technology for a “unified threat management” appliance and a “network access control solution.” In January 2007, Altitude invested \$8 million in Senior Secured Notes with warrants. The secured notes are subject to repayment from the company's IP proceeds and are secured by all the company's assets. Altitude also received warrants for an undisclosed equity interest in DeepNines, according to the arrangement.²⁰

Newlight Capital, another firm focused on IP venture debt investments, partners with companies seeking debt alternatives to venture capital or for cost-effective financing not readily accessible in the traditional market. Newlight’s “proprietary structured debt instrument is designed for earlier stage companies that own intellectual property with a clear path to commercialization.”²¹

Newlight’s model focuses on intellectual property because, the firm suggests, it is a traditionally undervalued component in venture debt, compared with accounts receivable, durable goods, inventory, etc. After Newlight values the IP, it issues a broad security package for a term loan with interest and warrants in the company.

Newlight’s IP-focused mezzanine debt product allows companies unable to meet their capital goals through conventional debt or equity to secure an interest in the company’s IP portfolio that is subordinated to the rest of the debt structure. In exchange for the upfront financing, the firm receives interest and warrants equivalent to the risk it is assuming.

Intangible Asset–Focused Debt Investment

On the opposite end of the spectrum, debt financing focused on intangibles allows companies to structure deals without diluting equity investors. These deals are secured by the assets of the company—for our purposes, its intangible assets. The following cases articulate the pure intangible asset–backed loan (IABL), the securitized IABL, and syndicated loan structures with dedicated IP tranches.

Intangible Asset–Backed Lending

Financial markets for asset-backed loans are already well developed and take many forms. Consumer loans, such as home mortgages and auto loans for individuals, are the staple of the credit and banking system. Inventory and equipment loans for businesses are available from either traditional banking sources or from specialized asset-based lenders. Specialized asset-based lending includes assets such as accounts receivable and extends from straightforward loans to complex lease-back arrangements.

Similar to these transactions, intangible asset–backed loans leverage a portfolio of IP or other intangible assets to secure a loan.²² Use of intangibles as lending collateral is rare but not unknown. There is a long history of such financial transactions. The first trade secrets case in the United States involved the debt on a bond secured in part by a secret chocolate-making process in 1837. In 1884, Ara Shipman loaned Lewis Waterman \$5,000 to start a pen-manufacturing business, which was secured by Waterman’s patent.²³

For such loans, the interested financial firm values the IA (most often, the IA secured for an IABL has an *explicit* valuation) and then structures the loan secured by the company’s IA and/or a licensing agreement/royalty revenue stream tied to the IA (most commonly, an IP portfolio). Companies can use a single IA-backed loan. In such cases, only the IA and its revenue stream are used to secure the loan. In either case, companies can secure

their IA in addition to a blanket lien against common collateral such as real estate or receivables. In the latter case, they may be able to receive additional capital by specifically securing an additional lien against the IA.

The following is an example of an IABL, led by Paradox Capital, an investment firm specializing in IP-based debt and equity in the middle market. Paradox has closed a number of loans for technology, consumer products, and fashion companies based on those companies' intellectual property.

Paradox Capital in August 2008 provided an IABL to Snapware Corporation, which specializes in storage and organization solutions for the home and kitchen with brands that include Snap 'N Stack, Smart Store, mods, GlassLock, Airtight Canisters, and Snap 'N Serve. The financing relationship between Paradox and Snapware grew out of an initial IP-based loan provided more than a year before the August deal. After the relationship proved successful, Paradox Capital partnered with New Stream Capital to close the IABL for Snapware, supported by the storage company's strong and ongoing investments in brand and product design. Paradox has continued to fund Snapware with additional capital, helping the company grow.²⁴

The PE firm of New Stream Capital, based in Ridgefield, Conn., also works on its own to provide commercial banking services that include intellectual property term loans. Due to the private nature of the firm, details on each of these loans are limited; however, the firm publicly lists the following three deals:

- A \$9.8 million loan to a Berwick, Penn., snack-food producer secured by the company's brand names, trademarks, and patents
- A \$6.6 million term loan to a Los Angeles furniture and home goods company secured by that company's IP portfolio
- A \$5 million term loan to a Huntington Beach, Calif., apparel company secured by the trademarks along with accounts receivable and inventory.²⁵

Some firms specializing in IABLs will serve as a credit enhancement agent to a larger bank or firm that ultimately lends the funds. These firms might partner with investment and commercial banks, and even private equity firms, to secure a line of credit for the target company to provide the larger institution with additional protections to offset the complexity and uncertainty surrounding IA valuations.

The innovative flat-panel display technology maker Cambridge Display Technology (CDT),²⁶ for instance, secured IABL financing arranged by a large bank and a credit enhancement agent. CDT had developed promising polymer-organic light-emitting diode (PLED) technology and held a number of fundamental patents in this field. CDT had been generating revenue through a licensing program stemming from use of its technology by large companies, such as Siemens and Philips. In 2004, CDT needed additional capital to continue development and marketing. In July 2004, CDT received a \$15 million loan from Lloyds TSB, fully guaranteed by the credit enhancement firm IP Innovations (IPI) Financial Services, Inc. IPI secured the loan on the "strength of CDT's patent portfolio, extensive licensing history, unprecedented upfront licensing fees, size

and growth trajectory of the market for the products supported by the PLED patents, and the level of industry wide investment in the commercialization of the technology to date.”²⁷

IPI financed a similar deal in 2004 for ATD Corporation, a Georgia-based company that supplies acoustic and thermal insulation products to the automatic appliance and barbecue industries. The entire \$2 million loan by GMAC Commercial Finance was secured by the company’s patents, trademarks, and related licensing revenue. The IABL was additional and separate from the working capital loans secured by accounts receivable and inventory, with only the IABL piece covered by IPI’s credit enhancement guarantee.²⁸

Taking an example from the creative arts sector, Intangible Business, an IP financial services firm, structured a deal with Boosey & Hawkes to expand its business publishing the rights to the works of composers. Boosey needed capital to purchase additional rights, and Intangible Business agreed to provide the funding, which was secured by the rights Boosey already owned.²⁹

Another deal comes out of the food and beverage sector. Belgium-based KBC Business Capital financed an IABL loan for Burn Stewart Distillers Limited, which needed development capital to expand its international business marketing whiskey brands. In this case, the IP was used to enhance the original loan. KBC retained Intangible Business to value Burn’s intangible assets and inventory and was able to demonstrate the additional value of the brand assets when combined with the value of its real estate. Ultimately, KBC loaned Burn £31 million.³⁰

Securitizations in IABL

The securitized IABL is a slight variation on the form of IABL discussed above. Securitizations, as mentioned earlier, allow companies to grant a security interest in a particular revenue stream, whether current or prospective. In recent years, royalty financing arrangements, especially in the pharmaceutical and biotechnology sectors, are increasingly useful as sources of securitizations. These arrangements range from straightforward securities in royalty streams that are already cash-flow positive (“royalty interest”) to more complex and risky investments in prospective future revenues from products that are still in the premarket/precommercial stages (“revenue interest” or “synthetic royalty” transactions).³¹

The “royalty interest” securitization allows a company to sell the rights to an investor for cash up front or to sell a percentage of the rights for cash up front while still retaining a partial right to future royalty revenue. Either way, the investor is attempting to purchase the royalty revenue stream at a discount from what it will pay over its life.

The “revenue interest” securitization model follows the same structure but is simply executed earlier in the life of the patented or copyrighted entity—for the purposes of this definition, before the royalties have generated any revenue. Because the royalty has yet to

generate revenue, the investing institution generally negotiates more favorable terms for itself due to the greater level of risk. Ultimately, the investor pays the rights' holder for part or all of the prospective royalty revenue stream in exchange for the rights to future royalty pay days.

According to an article in *The Deal Magazine*, the number of royalty securitizations has grown dramatically in recent years. In 2000, there were two publicly announced deals—one royalty interest transaction and one revenue interest transaction—totaling \$145 million in investments. Contrast that with the 2007–2008 period, when there were 27 publicly announced transactions—19 royalty interest transactions, five revenue interest transactions, and three hybrid transactions using multiple financing techniques including royalty financing—totaling \$3.3 billion. Leading firms in this field include Capital Royalty LP, Cowen Healthcare Royalty Partners, DRI Capital Inc., Paul Capital Healthcare, and Royalty Pharma.

Both the royalty and revenue interest models allow a seller to use future cash flows from an asset or group of assets to receive upfront payments from investors in exchange for a security interest in the revenue. The seller wants to monetize the assets immediately and the investor accepts future payments based on partial or outright ownership of the royalty rights. The seller is able to hedge the risk of unpredictable future cash flow from the revenue by taking the money up front; however, the investor attempts to accurately model and predict the revenue and gain in that upside, with most investment firms modeling for a 20 percent internal rate of return.

A “royalty interest” securitization can also serve as a debt vehicle because it is already revenue generating. This financing vehicle takes the securitization of the royalty revenue stream and collateralizes it for a loan rather than selling the rights. The appeal of this approach is in retaining the long-term profitability of the royalty revenues of a commercially successful invention. There are risks associated with borrowing that are inescapable, however: the interest payments on this mortgage of a blockbuster-to-be might be very large and unsustainable over time.

Financial firms will be concerned with the maturity of the cash flow; the life of the patent and, subsequently, the terms of the revenue stream; the consistency of the revenue stream; liability for infringement; and other factors related to the risk and potential of the royalty revenue. At the same time, the firm will be concerned with the creditworthiness of the licensees because, ultimately, those companies are the ones whose commercial viability impacts the financial firm's client's ability to repay the debt.³²

XOMA Corporation is an example of a company that has utilized both a securitization as well as a securitized IABL to access capital on two separate occasions. XOMA, a human antibody therapeutics technology company with a broad platform of innovative, proprietary technologies, has a history of developing products that it licenses to other pharmaceutical and healthcare companies to use in treatments.

In 1996, XOMA signed an exclusive license agreement with Genentech, Inc. for the patented CD20 antigen technology. This licensing agreement gave XOMA upfront cash payments and created royalty rights associated with the use of the technology. Separately, Genentech advanced \$5 million to XOMA in 1996 and then \$10 million in 1998 to fund development expenses for the hu1124 (antiCD11a) product.³³ Genentech also purchased shares of XOMA common stock.³⁴

In 1997, Royalty Pharma—a financial firm providing liquidity to royalty owners in exchange for the risks and rewards associated with those royalty streams—purchased the patents and royalty rights from XOMA for an upfront cash payment and began receiving quarterly payments from Genentech.³⁵ While this transaction provided XOMA with immediate capital, it assigned the risks inherent in the royalty stream to Royalty Pharma. XOMA was able to reinvest the cash to fund the development of other products and technologies in its pipeline.

In 2006, XOMA entered into a five-year loan facility with Goldman Sachs Specialty Lending Group, borrowing \$35 million. The loan was structured for an annual rate of six-month LIBOR plus 5.25 percent secured by all rights to receive payments due to XOMA relating to XOMA's drugs RAPTIVA, LUCENTIS, and CIMZIA. Royalty payments received by XOMA are to be used to make the semiannual interest payment to Goldman, with any additional amounts used to pay down the principal at the lender's discretion.³⁶

In May 2008, XOMA refinanced its loan with Goldman to borrow \$55 million. The loan is secured by the royalty revenues XOMA receives from sales of the three brand-name drugs. Using proceeds from the new five-year loan, XOMA paid off the remaining \$22.1 million in principal from the original 2006 royalty-based Goldman loan as well as transaction-related fees and expenses.³⁷

The story of XOMA's creative financial arrangements demonstrates the IA-based financing options available to companies. XOMA's IP assets and associated revenues from its groundbreaking research and development (R&D) allowed it to enter into collaborative R&D and financing agreements with Genentech and to make loan arrangements with Royalty Pharma and Goldman Sachs.

In recent months, however, negative developments relating to XOMA's business show the flip side of IP financing. An adverse public health advisory issued by the U.S. Food and Drug Administration (FDA) in February 2009 on RAPTIVA—linking the drug to a rare brain infection—all but eliminated XOMA's royalty revenue from the Genentech contract, which also impacted the securitization for the Goldman Sachs loan. XOMA's auditor, Ernst & Young, in March issued a “going concern” letter stating that XOMA's financial outlook is uncertain because of its operating losses, cash reserves, and debt burdens.³⁸

Despite XOMA's recent struggles, its case demonstrates the viability of a securitized IABL—the company successfully securitized, sold, and lent against its royalty revenue over the last decade. Companies that have not yet generated revenue on a particular

product can pursue a variety of models that grant both debt and equity around the security in a prospective royalty revenue stream.

As described earlier, financing transactions may involve assets where future cash flows are not yet derived from an existing license or royalty agreement. In this “revenue interest” model, the investor expects future commercialization, licensing, and product sales to generate revenue. The investor in this scenario is willing to step into the process early on to fund the commercialization process. In such cases, the investor may require an equity position as well. The investor might structure the agreement to ramp up funding when the company meets certain benchmarks, especially in healthcare, where there are well-established regulatory and commercial milestones.

Due to the higher risks associated with revenue interest compared with royalty interest, companies and investors must be willing to negotiate terms that will work for the unique situation of the business, product, and capital. The increasingly robust marketplace for IP assets has only made the revenue interest model more viable because the increasing number of liquidation mechanisms (such as IP auctions) offers some measure of security to investors looking to fund the more speculative revenue interest securitizations.³⁹

For example, Dyax Corporation, a biopharmaceutical technology company specializing in therapeutics in oncology and inflammation, arranged \$50 million in financing in August 2008 through Cowen Healthcare Royalty Partners, with a 16 percent coupon plus warrants in the company. Dyax used a traditional IABL, securing the loan with the company’s licensing and funded research program (LFRP), the business unit responsible for developing collaborative R&D partnerships to generate licensing and new research. Dyax then refinanced the loan in March 2009—again secured by the LFRP—and used the funds to repurchase an interest in the LFRP that the company previously sold, while retaining nearly \$15 million. Dyax planned to use the second loan to fund the development and commercialization of DX-88, one of its most promising products.⁴⁰ Dyax used the revenue interest model to borrow against this IA for its prospective value, rather than its royalty revenue.

IP as General Collateral

More generally, IP assets are being increasingly written into the contracts governing broad asset-backed loans. While intangibles have always been included in a blanket lien on all assets, it is becoming more commonplace for creditors to focus their analysis more directly on intangibles, either as a separate asset or as an integral part of overall company value. For example, Smithfield Foods company received a \$1 billion revolving credit facility from JP Morgan that was secured by first-priority liens in the company’s and its U.S. subsidiaries’ cash, intellectual property, equity interests in the subsidiary guarantors, inventory, accounts receivable, and other personal property.⁴¹ In other words, intangibles were treated like any other asset.

Apart from an independent IABL, larger companies have also arranged funding through a dedicated amount of IA-secured debt within a broader lien structure, often a syndicated

loan with multiple financial institutions. These types of loans utilize IP as general collateral.

The national toy retailer Toys ‘R’ Us is an example of a larger company that leveraged its IP to secure debt. The company had a tiered debt structure totaling \$5.8 billion (as of May 2009) with secured notes on various assets throughout the company and its subsidiaries, including a real estate subsidiary that controls the company’s retail properties. Within this complex debt arrangement is a secured-term loan based on the company’s intellectual property and a second lien on accounts receivable and inventory.⁴²

The Toys ‘R’ Us example is a window into one of the barriers to IP-backed lending—at least from the financial institutions’ vantage point. The company is not viewed as highly credit worthy. A recent Fitch ratings report articulates the poor recovery prospects—in a distressed scenario valuing the company at \$3.3 billion—for its various tranches of debt. The IP-secured term loan is listed as less than 10 percent recoverable compared with real estate debt, which is seen as 71 percent to 90 percent recoverable. The unsecured debt was also listed at less than 10 percent.⁴³ Clearly IP is still not seen as a highly recoverable asset; IP-secured loans are on par with unsecured debt. On the other hand, using IP to secure part of its debt may have given Toys ‘R’ Us access to otherwise unavailable capital.

Alternate Model—Sale and Lease Back

Apart from the debt-and-equity financing arrangements, the “sale lease-back model” is worth considering for companies looking to raise capital for further innovation and business development. The sale lease-back is employed by some companies to secure short-term funding by selling a portfolio of IP to a firm along with an agreement to receive a license for the IP to continue commercialization and business operations. The company receives immediate funding to reinvest in the business, and the licensing firm structures the contract to pursue continued monetization of the asset.

VocalTec Communications Ltd., an Israeli telecommunications company, for example, sold the rights to 15 of its 22 inventions in January 2009 to raise cash to market its main Internet phone software. VocalTec reported \$5.8 million in 2007 revenue but decided to dispose of its consumer phone patents to focus on sales, using the money from the transaction to fund this business development effort.⁴⁴

The VocalTec case demonstrates that companies may consider it in their best interests to jettison all or part of their IP in favor of a lump-sum cash payment. While most companies wish to retain their rights—whether for royalty revenues, technical market protection, or brand preservation—some will decide they will not suffer if they don’t own their IP.

These alternative and hybrid models show the adaptability of financial firms to structure IA-focused instruments to meet the needs of companies. Intangibles are a truly legitimate

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asset class that can be treated like other asset classes, with financial products of all structures able to be arranged to meet any given company's capitalization requirements.

Analysis and Policy Discussion

Built on existing models, intangible asset (IA) finance is a growing niche in the field, helping to meet the needs of many exciting and upstart companies and industries. As the above cases demonstrate, financial firms large and small are beginning to address the issue of IA risk management. The following points summarize the primary challenges in the IA-based lending and equity investment sector:

- IA financing vehicles require flexibility and specialization to account for differing and unique factors inherent in intangible assets.
- A robust market for IAs is necessary to ensure appropriate and accessible liquidation events for financial firms with both debt and equity positions, especially in distressed situations. The recent proliferation of IA licensing and sales, including auctions, has added depth to this market. But with low recovery rates currently standard, greater awareness is needed to ensure that companies' and financial firms' IAs are valued correctly and licensed and sold at prices reflecting high return rates.
- Intangibles are important assets to be secured in lending and compare with the traditional assets of real estate, accounts receivable, and inventory.
- Even financial firms specializing in IAs rightly evaluate investment opportunities within the broader view of the profitability and growth potential of a target business. These holistic due-diligence processes, however, do not discount the independent value of many IA classes.
- Valuation methodologies for IAs are diverse and understandably imprecise; however, conservative loan-to-value ratios, advance rates, and other debt-and-equity protocols allow firms to account for the inherent imprecision of IA valuations.
- Intangible assets, as an asset class, provide financial firms with flexibility in structuring deals, allowing for both debt-and-equity vehicles and hybrid models. These vehicles can be adapted to address financing requirements for companies of all sizes and needs.
- The securitization market for intangibles, while currently suffering from the same problems plaguing the overall securitization market, provides additional mechanisms for companies with IA-licensing businesses. These companies can use a debt model to generate cash flow for positive assets or, more likely, use an equity model for precommercial-phase assets.

Given these findings, what follows is an outline of some basic but important goals to advance the IA-finance field that the financial services industry, company boardrooms, and the government and public policy community may consider.

First and foremost, intangibles as an asset class need greater awareness. Financial investors and company executives alike must become better aware of their independent value. For example, intellectual property (IP) has for too long been sequestered in the legal departments of financial firms and companies. Large banks have lawyers dedicated

to defending the banks' IP portfolios, but less attention is paid to IP in lending units. In the same way, companies often fail to integrate IP matters into business strategy. The value of IP can and must be utilized more aggressively as a capital asset. Not until financiers and executives are able to muster greater respect for IP's role in business will IA investments strengthen and grow.

Other intangible assets are similarly ignored or managed in silos. Human capital is relegated to the human resource department and is not viewed as a strategic asset. Customer relations, client development, and supplier relations are too often seen in isolation. And company-specific know-how, tacit knowledge, and proprietary processes—all of which constitute trade secrets—are often not even acknowledged, let alone protected or invested in. To the extent that intangibles are ignored, their potential value—both implicit to company growth and explicit for use in the financial markets—will remain unfulfilled.

Remedying this situation will require increase both general and specific knowledge on intangibles. It is not sufficient to simply increase awareness of the importance of intangibles. At a broad level, most business leaders generally understand this. What they often lack are the specific tools and mechanisms to operationalize how to analyze, manage, and utilize intangibles. Creation of those tools and the training in their use needs to be a priority.

In addition to raising awareness about intangibles, this paper demonstrates the nascent viability of IA-based finance models—and provides businesses, governments, and public policy communities with a point of reference to take further action.

The federal government's recent stepped up role in the financial services industry—in particular, its move to regulate innovative financial products—is an important consideration for the capital markets. Advocates of IA-based finance must recognize that the government is now a key player in this growing market.

Public policies that affect IA-based finance cut across various programs and agencies, but often in very specific ways, from accounting and financial reporting standards to banking regulations to government loan programs. Understanding how these policies (discussed in greater detail in an earlier report⁴⁵) impact IA-based financing is critical to the discussion.

The U.S. Small Business Administration (SBA), for instance, plays a vital role in the development of new and small businesses through a number of loan guarantee programs. Many businesses looking for growth capital apply for SBA loan guarantees—most commonly through the SBA's 7a Program—that allow a company to utilize the SBA guarantee in negotiating a loan with a lender of choice. SBA recently revised its Standard Operating Procedure (SOP) for the 7a Program.⁴⁶ As part of that revision, SBA made clear that loans can be used for the acquisition of intangible assets when buying an ongoing business.

However, the rules are unclear as to whether intangible assets can be used as collateral. For example, the SOP explicitly requires that the value of any intangible asset portion of a commercial real estate purchase cannot be counted as collateral. But the intangible assets must be factored in when appraising the value of a business. This data on the value of intangible assets in acquired businesses could be of great value to SBA.

It is also unclear whether loans can be used to purchase intangible assets independently, such as a company buying a patent rather than someone buying a business. Intangible assets are not specifically listed as one of the eligible uses for loans. Fixed assets—referred to in the documents as land, buildings, machinery, and equipment—are prominently featured in the rules and regulations. Yet, the SOP notes that loans used for the financing of intangible assets must not exceed 10 years.

Intangible assets need to be incorporated into SBA lending policies. SBA should work with commercial lenders to develop standards for use of intangible assets as collateral, similar to existing SBA underwriting standards. Standards for the treatment of intangibles would prevent intangible value from being understated in lending. While these standards should be broad and allow for a wide variety of intangibles, SBA standards—adopted with the cooperation of lending partners—could assist banks and businesses in negotiating a proper valuation of collateral in lending.⁴⁷

Data collected from loan documents on the value of intangible assets as part of acquired businesses should be useful in this regard. It will tell the SBA much about the nature of intangibles in small business and provided critical intelligence for informing the SBA's policies for handling intangibles in lending in the future.

Conclusion

As we can see from these case studies, there is a place for intangible asset (IA) investments in the capital allocation process, even if it is not yet mature. IA-based finance will only develop if its valuations can compete with other asset classes, if it can rely on a variety of liquidation mechanisms, and if a number of mainstream financial firms get involved in this exciting market.

The maturation of this market will prove to be a valuable innovation in finance. Today's most promising companies are built on intangible assets. This new wave of business growth requires the finance community to develop the robust financial products to fund these companies. A market for IA-focused financial services is vital to foster continued innovation and economic growth.

The United States' effort to bring about an IA-based financial system lags compared with other countries. For example, the Department of Intellectual Property in Thailand has its own Intellectual Property Capitalization project that, as of early last year, had used intellectual property for loan collateral totaling more than 75 million baht (\$2.25 million).⁴⁸

Likewise, in 2008, the People's Republic of China developed a special program to encourage IP-based finance. The government set out to invest in innovative industries but found that target companies lacked collateral to finance their loans. Seeing this, the Beijing IP Office provided 402.75 million yuan (\$59 million) from the Bank of Communications for 37 small and medium-sized technology companies, for so-called "IP pledge loans."⁴⁹

"Intellectual property is intangible and people always believe that pledge loans involve risks," an official with the Beijing IP Office told *China IP Magazine*.⁵⁰ "But an IP pledge loan offers a way to solve the financial difficulties faced by small enterprises. Actually, it would be a good thing for both the bank and the enterprise as long as we can manage the risks and put money in companies with perfected IP rights."

While China is far from a free-market and business-innovation model, there is much to appreciate in the Chinese government's acknowledgment of this business problem.

It joins many others in recognizing that the nature of business and the assets of companies have changed: Much of our gross domestic product is intangible. The different quality and characteristics of the assets we produce have changed the very nature of business. Financial management must therefore be reimagined to value the intangible assets that will drive the innovations of the future and respond to the burgeoning demands of a changing market. Only then will our continued growth and prosperity be assured.

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