



# Intangible Asset Monetization

The Promise and the Reality

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**Athena Alliance**  
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## **About Athena Alliance**

Athena Alliance is in the vanguard of identifying, understanding, analyzing, and educating on the information, intangibles, and innovation (I<sup>3</sup> 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, brand names—are the new keys to competitive advantage. Intangibles and information drive our innovation process, a combination of formal research and informal creativity. These elements combine to produce productivity and improvement gains needed to maintain prosperity.

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. Recent activities include working with the District of Columbia to create an innovation-led economic development strategy; co-hosting Congressional luncheon briefings; co-hosting a DC-based conference on innovation in India and China with the National Academy of Sciences; co-hosting a New York City-based conference on the financial reporting and intangibles with the Intangible Asset Finance Society; and publishing policy reports on intangible assets, including *Reporting Intangibles* (2005) and *Measuring Intangibles* (2007).

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## **Executive Summary**

**T**he economy of the United States is now largely driven by intangible assets. These assets include worker skills and know-how, innovative work organizations, business methods, brands, and formal intellectual property, such as patents and copyrights. They are producing an economy very different from the one of the past. As the U.S. moves away from a manufacturing-based economy and toward a technology-and-innovation driven one, intangible asset investments are becoming vital to economic growth and sustainability. Just as physical assets were used to finance the creation of more physical assets during the industrial age, intangible assets should be used to finance the creation of more intangible assets in the information age.

Intangible assets show up in the financial system in various ways. They are valued—often implicitly, sometimes explicitly—in financial markets by analysts, in stock prices, in ratings by credit agencies and for private lender programs. Mechanisms for raising capital based on intangibles already exist, including securitization, lending, licensing, and outright sale. Recent financial innovations have better captured intangibles in the financial markets.

But the evolution of robust capital markets that both utilize and support intangibles has been slow. Intangibles are still not can be considered on the balance sheet nor given due credit for playing a vital role on the income statement. Intangible assets have no standardized financial tools to capture their value. Each intangible asset financing deal seems to be a unique, one-off event employing differing models to determine the assets' value. The associated perceptions of risk—in some cases exacerbated by actual events, such as the subprime mortgage meltdown—have greatly hampered the utilization of intangibles in capital markets.

As a result, companies are missing substantial capital resources that could be used for business expansion or innovation investment. To effectively realize the significant potential of intangibles, industry standards and government regulations need to promote the acceptance, use, and dissemination of intangible assets in the economy.

A number of factors must be considered by the financial markets to determine the suitability of an asset, including asset recognition, valuation, separability, transferability, duration, and risk. However, management and capital markets have failed to solve the very real problem of valuation, which severely undermines attempts to create financial leverage for the asset. This valuation deficit must be remedied for businesses and the economy to remain fully viable and sustainable over the long term.

Despite these drawbacks, intangible asset monetization could be the key that unlocks a vault of unexplored, exciting, and extremely useful sets of financial risk-mitigation instruments.

A secure, open, transparent, fair, and efficient capital market for intangible assets depends on government and independent regulatory bodies playing an active role. Yet

very little public or private research exists that clearly explores this asset class. Thus, the greatest potential contribution from public policy may be to raise awareness and encourage utilization and better understanding of all facets of intangibles.

Beyond this basic need, numerous other actions are required to change the situation. There is no magic bullet; no single government or industry action will resolve all the issues. But policymakers play a key role in promoting acceptance, use, and dissemination of intangible assets in the market. Areas in need of attention include patent reform, securities definitions, banking regulations, perfection and bankruptcy laws, technology policy and tax policy. Industry standards and procedures also need attention, especially in valuation.

Some key policy actions include:

- Reinstating the joint Financial Accounting Standards Board (FASB) and International Accounting Standards Board (IASB) research project on expanded disclosure guidelines for intangibles.
- Convening a special FASB/Securities and Exchange Commission (SEC) task force on the valuation.
- Creating a safe harbor in financial statements for corporate reporting of intangible assets.
- Exploring the creation of an Intangibles Mortgage Corporation (Ida Mae) to regularize the intangibles-backed securities market, either as a limited government-sponsored enterprise (GSE) or as an independent organization.
- Creating a national central registry of intellectual property security interests.
- Creating a permanent knowledge tax credit that would increase investments in intangibles.
- Exploring lowering the tax rate on intangible asset royalties, in conjunction with stricter regulations on international transfer pricing mechanisms and cost-sharing arrangements and on passive investment companies.
- Enacting patent reform legislation and including a review of patent litigation and patent liability insurance.
- Reviewing how the federal technology transfer system, including Bayh–Dole, does or does not facilitate the creation of intangible assets.
- Reviewing the Basel II Accords to better understand their implications for intangible-backed lending.
- Reviewing federal government business loan programs, especially in the small business arena, to ensure that intangible assets can be used as collateral.
- Coordinating with ongoing efforts at market reform, such as the President’s Working Group on Financial Markets, to ensure that intangible-backed assets are properly included.

Perhaps the single most important step is the recognition that intangible assets are not covered in existing financial structures. Our economic policies and regulatory systems, public and private, are still largely set up to accommodate the tangible assets of the industrial era—buildings, fixed resources, and machinery. This is not surprising; these systems have evolved over the past couple of centuries as the industrial revolution unfolded.

Today, intangible assets—knowledge, ideas, skills, relationships, and organization—have come to underpin value creation; their monetization is now essential. But this will require newly relevant policies and structures that unleash the economy from the strictures of the past and pave a new way forward for financial success in America and around the world. The opportunities they portend make the recognition, valuation, and utilization of intangibles essential to the success of U.S. enterprises and prosperity of the U.S. economy.

## Introduction

The prominence of intangible assets in economic growth and corporate valuation has never been greater. As companies try to harness innovation and technological advances and create product and service differentiation, these assets are playing a greater role in corporate investment decisions. Economic performance is gained more by out-thinking your competitor and less by out-producing him. As the United States moves away from a manufacturing-based economy and toward a technology- and innovation-driven one, the need for extensive intangible asset investment is vital to economic growth and sustainability.

Yet we are failing to tap into the full potential of these assets, especially as a financing tool. Investment in the creation of intangible assets in the U.S. is more than \$1 trillion annually.<sup>1</sup> The total value of intangibles in the U.S. when measured in 2005 dollars was estimated at \$9.2 trillion.<sup>2</sup> However, only a portion of that value shows up in company financial reports.<sup>3</sup> Likewise, intangible assets rarely merit consideration in the financial system. As a result, companies are missing valuable sources of capital that could be used for business expansion and innovation.

Compared with traditional fixed assets, intangible assets have been treated much differently by the capital markets, which have historically limited their financing potential. The unique nature of these assets—underscored by transferability difficulties and valuation challenges—has limited borrowing capacity and driven up finance costs. To overcome obstacles to investing in intangible assets, government intervention will likely be needed to encourage capital markets to support and invest in this asset class and consequently to free up its enormous potential. Increasing investment will require tapping into the financial enhancement possibilities inherent in any asset. Evidence is emerging that both the government and the private sector recognize the significance of intangible assets, but the means for leveraging their extraordinary value have been slow to materialize.

That is not to say that monetization of intangible assets is a completely new phenomenon. Intellectual property (IP) has long been used as loan collateral. 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.<sup>4</sup> In 1884, Ara Shipman loaned Lewis Waterman \$5,000 to start a pen-manufacturing business, secured by Waterman's patent.<sup>5</sup>

Today, the law firm of Buchalter Nemer can begin a newsletter on the subject with the following statement:

It is common practice for lenders to extend credit to their customers that require their customers to use their intellectual property (such as copyrighted material, trademarks, or patents) as collateral.<sup>6</sup>

Intangibles traditionally have played a significant yet largely unspoken role in financial activities. Market analysts spend as much time in their reports considering intangibles, such as managerial experience and technological know-how, as they do calculating

financial statistics. Investors have started to carefully measure company metrics like corporate culture, stakeholder relationships, environmental practices, and governance ratings when choosing where to place their money. In recent years, innovative financial products like intellectual property securitization have emerged to capture values never before realized from these important assets.

These financial innovations are, however, still insufficient to bring about robust capital support of intangibles. Many intangible assets have no standardized financial tools to capture their value. Furthermore, the value of most intangibles has never been regularized; the lack of a universal valuation model for intangibles may serve as a significant impediment to capital market usefulness. While progress has been made, the promise of unlocking the hidden value of intangible assets has yet to be fulfilled.<sup>7</sup>

## **What are Intangible Assets and Why are They Important?**

To understand the significant impact of intangible assets, we must know a little more about them: what constitutes an intangible asset, what are the different types of assets, and how are intangible assets considered in corporate financial statements.<sup>8</sup>

### ***What are Intangible Assets?***

There are numerous ways to define, categorize, and classify assets, including intangible assets. According to Daum, assets are everything owned economically by a company that has monetary value. Assets come in the following four forms:

- Current assets, such as assets likely to be sold or consumed within one year
- Fixed assets, like plant equipment and properties that have a useful life of more than one year
- Investments, such as a company's stock and bond holdings
- Intangible assets, which includes everything that is not physical or investment but is of value to the company ... also called "intellectual capital."<sup>9</sup>

Lev notes that "[a]n intangible asset is a claim to future benefits that does not have physical or financial (a stock or a bond) embodiment."<sup>10</sup> He adds that intangible assets are "sources of value generated by innovation, unique organizational designs, or human resources practices. Intangibles often interact with tangible and financial assets to create corporate value and economic growth."<sup>11</sup>

As Daum goes on to describe:

Intellectual capital comprises human capital, structural capital, partnership capital and customer capital. ... In addition a company's culture and strategic capabilities count as intellectual capital or intangible assets.<sup>12</sup>

Others have differing categories. For example, Contractor divides corporate knowledge into the following subsets:

- Intellectual property: patents, brands, copyrights (registered)
- Intellectual assets: drawings, blueprints, written trade secrets, databases, formulae, recipes (unregistered but codified)
- Intellectual capital: collective corporate knowledge, individual employee skills
- Knowledge, "know-how," organizational culture, customer satisfaction (uncodified human and organizational capital).<sup>13</sup>

A slightly different version of this comes from Zambon, et al.<sup>14</sup> Like the other studies cited here, this framework defines intangible assets as "non-physical sources of expected benefits," with the following three subcategories:

- Intellectual Property—Intangible assets with legal or contractual rights, including patents, trademarks, designs, licenses, copyrights, film rights, and mastheads.
- Separately Identifiable Intangible Assets—Information systems, networks, administrative structures and processes, market and technical knowledge, human

- capital (if embodied in a codified form), brands, intangibles embodied in capital equipment, trade secrets, internally generated software, and drawings.
- Goodwill (Non-separable Intangible Assets)—Prior intangible investments embodied in organizations, management expertise, geographical position, or monopoly market niche.

Because there are so many different kinds of intangibles assets perhaps the best way to fully recognize all of them is to make an extensive list (Appendix A).<sup>15</sup> The Financial Accounting Standards Board (FASB) classifies 29 intangibles into five categories: marketing-related, customer-related, artistic-related, contract-based, and technology-based.<sup>16</sup> This list details assets such as package design, customer lists, and trade secrets. Additionally, the American Institute of Certified Public Accountants (AICPA) lists at least 90 different intangibles, ranging from chemical formulas to retail shelf space.<sup>17</sup>

### ***Why are Intangibles Important?***

Since the industrial revolution—an era dominated by the supremacy of manufacturing economies—wealth has been measured in terms of control of scarce resources, productivity, and market domination or market share. However, American industry has evolved into an environment defined by technology, innovation, creativity, and service. The metrics of the 21<sup>st</sup> century economy must now accurately represent the wealth creation arising from knowledge-based activities across all sectors.

Manufacturing has long been supported by economies of scale, but size advantages do not necessarily drive success in innovation-based economies. Large centralized organizations can end up limiting productive operations and growth in the global economy. Today's rapid advances in science and technology can incubate and flourish in coordinated or integrated—and relatively smaller and more flexible—enterprises. Flexible operations spring up where resources such as talented labor pools exist or where valuable technological partners reside. The intangibles of know-how or innovation-based relationships thus drive operational decisions under this new paradigm of competitive advantages in the market. Consequently, popular phrases, such as “information revolution” or “knowledge-based economy,” have sprung up to describe these modern economies.

These changes have transformed industries from centralized behemoths to widely dispersed operations that tend to operate well below the gaze of Wall Street. Overall economic growth and market value creation is being driven by the little enterprises that can more easily adapt to rapid changes in this new economy. The new economy is and will continue to be intangible-focused to harness the advantages of technological productivity, high-skilled labor, and cutting-edge creativity. In this new economy, knowledge-based and intangible resources represent the true source of sustained competitive advantage.<sup>18</sup>

According to Daum:

Knowledge as a new factor of production will help a society or [a] nation as well as its organizations to handle new challenges and ever-changing conditions and to master innovation, which is the success factor in the new economy—not only for companies but also for nations.<sup>19</sup>

But the standard notion of “knowledge” is not sufficient to explain the shift. As Daum goes on to remark:

Economic power will not simply flow to those nations who educate their people, who are the most wired, or who invest most of their GDP [gross domestic product] in R&D [research and development]. It will flow to those who, in addition, are the most creative in bringing together business, government, capital, information, consumers, and talent in networked coalitions that create value.<sup>20</sup>

### ***Do Intangibles Matter to Corporate Strategy?***

Most companies are composed of significant amounts of intangible assets in their net worth. But does senior management recognize them and effectively and consequently include them in performance measures and corporate strategy? Yes and no.

In a 2003 Accenture survey of senior managers across industries, 49 percent of respondents said that intangible assets are their primary focus for delivering long-term shareholder value.<sup>21</sup> Yet only 5 percent stated that they had an organized system to track the performance of these assets. A full one-third of the respondents said they had no system to measure performance whatsoever. When asked to measure the importance of managing intangible assets for long-term value, half of the respondents listed the issue in their top-three most important considerations. A noteworthy 50 percent of the survey respondents seemed to believe that the equity markets recognized and eventually rewarded companies that invest in intangibles.

Numerous models have shown the connection between intangible assets and ultimate financial outcomes. These models allow managers to understand the key value drivers of their specific industry and how those value drivers can be enhanced. Such models include The Balanced Scorecard,<sup>22</sup> the Danish Intellectual Capital Statement,<sup>23</sup> the Skandia Intellectual Capital Navigator,<sup>24</sup> Intellectual Assets Monitor,<sup>25</sup> the PriceWaterhouseCoopers (PwC) ValueReporting,<sup>26</sup> the KPMG Value Explorer,<sup>27</sup> and, from the now defunct accounting firm of Arthur Andersen, Value Dynamics.<sup>28</sup>

For example, research by Low and Kalafut found a strong correlation between the management of intangible assets and the overall success of a firm.<sup>29</sup> Using a complicated model they call the Value Creation Index (VCI), Low and Kalafut were able to measure the performance of companies based on such factors as the utilization rate of patents and R&D expenditures compared to overall revenues. They also incorporated polls taken by independent researchers that track intangible elements, such as company reputation and employee morale. Overall, the index measured the following intangibles: leadership, strategy execution, communication and transparency, brand equity, reputation, networks

and alliances, technology and processes, human capital, workplace organization and culture, innovation, intellectual capital, and adaptability.

The VCI scores ranked companies that seemed to do the best job of managing and using their intangible assets. The model successfully correlated high VCI scores with strong financial performance.<sup>30</sup> This research supports the notion that intangible assets are vital to financial performance in an organization and must be accounted for in strategic decision-making and investment.

### ***Financing Intangibles and Innovation***

It has been said that money is the lifeblood of business. More to the point, the ability to raise capital for a new idea or a new enterprise is at the heart of our economic system. Innovation requires a financing system and the U.S. financial system and capital markets are the model of the world. Even with challenges from other financial centers, the U.S. capital markets remain the gold standard. Partly as a result, our innovation system flourishes.

But having great capital markets does not necessarily translate into a strong appetite for innovation. New products and ventures are risky for investors. Proven performers are the belles of the ball who garner all the attention of financiers while upstarts are left scrambling to impress a small pool of skeptical suitors.

Financial concerns also can cause companies to retrench to proven revenue winners at a time when long-term financial growth may markedly depend on investments in the potential winners of the future. Numerous reports have indicated that U.S. investment in R&D activities—essential for discovering new innovations—has slowed.<sup>31</sup> Likewise, the recent subprime mortgage meltdown shows what happens when the financing system breaks down and risk aversion across markets takes hold. When credit becomes scarce, business investment, including in innovative activity, slows down.

Keeping our innovation system going may very well require the development of new sources of funding. Currently, companies can raise money based on their physical and financial assets. Physical and financial assets can be easily bought and sold, borrowed against, and used to back other financial instruments. As such, these assets provide companies with a source of the investment funding needed for the U.S. economy to grow and prosper.

But, as this paper will demonstrate, utilizing intangible assets for investment financing is much more difficult. The more than \$9 trillion in intangible assets mentioned earlier are largely hidden away, unavailable for financing purposes. As such, there is a huge opportunity cost imposed on the U.S. economy when such a large source of potential financing is locked up. Since intangibles assets are not generally available to serve as a source of investment and risk capital, innovative companies may face a higher cost of capital—or even a dearth of capital—to fund new ideas. Unable to use their intangible assets as a financial tool, perspective borrowers face a system that does not understand

their true revenue potential and is unable to judge operational risks appropriately. Existing ideas, in the form of patents and other intellectual property, sit unused. New ideas never gain traction or remain unexplored or undeveloped. Economic potential goes untapped—and therefore wasted.

The illiquidity of those assets raises the cost of capital for all borrowers, not just those seeking to fund innovation. Unlocking the financial potential of intangible assets will provide a new mechanism for fueling future economic growth. Increased asset utilization in financial markets will allow for greater investment opportunities.

The U.S. financial system has always been adaptive to change. Lamoreaux and Sokoloff point out that “perhaps the most striking aspect of the record of innovation over American economic history is the flexibility that technologically creative entrepreneurs have exhibited in adjusting their business and career plans so as to obtain financing for, and extract the returns from, their projects.”<sup>32</sup>

The monetization of intangible assets is just one more step in the evolution of financing innovative activities. Just as physical assets were used to finance the creation of more physical assets during the industrial age, intangible assets should be used to finance the creation of more intangible assets in the information age.

## **Legal and Regulatory Frameworks Governing Intangible Assets**

To foster trust in the financial sector and guarantee the accurate functioning of the capital markets, government laws must promote clear asset recognition, corporate transparency, and the protection of security rights. Intangible assets, like any other asset class, are subject to banking and securities laws and regulations. Likewise, commercial transactions involving intangible assets are subject to normal commercial contract and tort law.

There are, however, a number of intangible-specific rules. From accounting standards to tax codes, many market rules have been revised and amended in recent years to maximize the use and development of intangible assets. For example, the commercial code has expanded the asset categories used as loan collateral to foster access to capital for investment in intangible assets. Accounting standards have undergone a series of revisions in an attempt to achieve transparency and to reflect the real value of intangible assets. The following section presents the most relevant U.S. laws and regulations governing the use and consideration of intangible assets.

### ***Financial Accounting Standards***

Private investors and other consumers of financial products rely heavily on transparent, accurate, and credible financial information that can be compared across industries to facilitate participation in the capital markets. It is therefore not surprising that accounting standards are central to the issue of monetization of intangible assets. Government regulators, academics, and professional leaders have identified an accountability deficiency in current accounting practices that leads to a potential misuse of reporting methods and distorts the equilibrium and credibility of capital markets.

### **U.S. Accounting Standards**

The mission of the Financial Accounting Standards Board (FASB)—an independent organization funded entirely by the private sector—is to set accounting and reporting standards to protect the consumers of financial information, namely investors and creditors.<sup>33</sup> FASB issues U.S. accounting standards, which are known as Generally Accepted Accounting Principles (GAAP). In July 2001, FASB issued Statements of Financial Accounting Standards (SFAS) 141 and 142, which addressed business combinations and intangible asset accounting issues.<sup>34</sup> These measures primarily changed the accounting process for “goodwill,” a standard catch-all category for intangibles on financial statements.

SFAS 141 eliminated “pooling-of-interests” accounting whereupon an organization simply merged the financial statements of an acquired firm with its own without a separate accounting of the intangible components of the transferred goodwill. Organizations must now separate out certain intangibles and account for goodwill through purchase accounting, which incorporates into the financial statements the actual purchase price paid by the acquirer. Consequently, some intangible assets missed in the

past are being captured by the implicit market value of the entire enterprise covering all assets—tangible and intangible.

SFAS 142 dictates accounting for the true value of intangibles in an organization. Organizations must annually attempt to calculate the current market value of their intangibles and integrate any value impairment or enhancement into the balance sheet. This significant regulation demands that a firm have comprehensive understanding of its own intangible assets and encourages internal corporate systems for accurately tracking and valuing them.

However, SFAS 141 and 142 only apply to assets acquired during a business combination; assets developed in house are specifically not covered. This severely limits the inclusion of intangibles assets on the balance sheets since Regulation G restricts the use of non-GAAP financial measures for accounting purposes.<sup>35</sup> (For more on accounting standards, see our companion working paper, *Reporting Intangibles*.)<sup>36</sup>

This quirk of the accounting standards has a special implication for intangible assets that may be split out from the company during a securitization process (to be discussed later). While the cost of an internally generated intangible is not recognized—and therefore expensed, not capitalized—once that asset is transferred it is subject to SFAS 141. As Anderoli and Dembitz explain:

The licensed intangible will automatically be a long-lived intangible rather than goodwill. SFAS 141 provides that intangible assets will be recognized (and valued) separately from goodwill only if they (1) stem from contractual or legal rights, or (2) can be sold or transferred. Since the intangible asset is licensed to an affiliate, it automatically has a value separate from goodwill. If the asset has a finite useful life, it must be amortized for financial reporting purposes.<sup>37</sup>

## **SEC Disclosure Requirements**

Two areas of securities laws and regulations also impact the disclosure of intangible assets. The first is the Securities and Exchange Commission's (SEC) regulations on disclosure of nonfinancial information. As part of these rules, companies are required to disclose information that is considered "material" to the financial situation of the company in the management discussion and analysis (MD&A) section of the financial statements.<sup>38</sup> In the past, such disclosures were generally vague and considered boilerplate.<sup>39</sup> Under current rules, the SEC has set down guidance that:

[W]hen preparing the MD&A, companies should consider whether disclosure of all key variables and other factors that management uses to manage the business would be material to investors and therefore required. These key variables and other factors may be nonfinancial, and companies should consider whether that nonfinancial information should be disclosed.<sup>40</sup>

For the most part, the specific types of information that the SEC suggests be disclosed are more along the lines of performance measures than intangible assets. However, intangibles do fit under the SEC guidance.

The second major area of disclosure is dictated by the Sarbanes–Oxley Act of 2002 (P.L. 107–204). Sarbanes–Oxley requires corporate management to disclose all factors relevant to the financial condition of the enterprise in the financial statements and company risk strategy portions of their disclosures.<sup>41</sup>

According to Banham, the major sections of the Sarbanes–Oxley Act, which require certification of financial statements and of internal financial reporting procedures, will force companies to better identify and manage intangible assets.<sup>42</sup> However, these sections apply to all assets, not just intangible assets. These requirements may help companies focus on intangibles, but only recently has compliance with Sarbanes–Oxley begun to influence how companies track intangibles.<sup>43</sup> For example, the Intellectual Property Management group of the risk consulting company Kroll now conducts audits of intangible assets to ensure compliance with the Sarbanes–Oxley requirements for adequate controls, policies, and procedures.<sup>44</sup>

### **International Accounting Standards (IAS)**

Intangible assets are also covered under IASB’s regulations. In 1998, IASB issued International Accounting Statement (IAS) 38,<sup>45</sup> which in part continued research cost guidelines that had been evolving since 1978 (originally called IAS 9). But IAS 38 went well beyond the issues covered in IAS 9. The objective of IAS 38 is to stipulate the accounting treatment for intangible assets not dealt with specifically by another standard.

Under IAS 38 an asset is a resource controlled by the enterprise as a result of past events (i.e., it was created in house or acquired) and from which future economic benefit (cash flow or other financial assets) are expected. Thus, the three critical attributes of an intangible asset are as follows: identifiably (it can be disaggregated and sold separately); control (there is power to obtain benefits from the asset); and future benefits (there is substantial evidence of the intangible’s value). If an intangible item does not meet both the definition of and the criteria for recognition as an intangible asset, IAS 38 requires the expenditure on this item to be recognized as an expense.

Some examples of possible intangible assets include computer software, patents, copyrights, motion picture films, customer lists, etc. These assets can be acquired through separate purchases, as part of a business combination, or through a government grant, an asset exchange, or an internal generation (self-creation). However, certain intangibles—brands, mastheads, publishing titles, and customer lists—are explicitly prohibited from being recognized as an asset if they were internally generated. Internally generated assets that come from research activities cannot be recognized. Likewise, limits are placed on assets internally generated from (nonresearch) development activities.

## ***Taxing Intangibles***

In addition to financial accounting standards, tax law and regulation play a major role in determining how companies treat intangibles. The tax code comes into play in two ways: how expenditures on the creation and maintenance of intangibles are treated (specifically whether and how much of those expenditures are deductible); and how the tax code treats income from intangibles.

### **On the expenditure side**

The differences between financial (book) accounting and tax accounting are numerous and well known.<sup>46</sup> The same distinctions apply to the treatment of intangibles.<sup>47</sup> For tax purposes, even the definition of intangibles as classes of business expenses is slightly different from financial accounting rules. According to the Internal Revenue Service (IRS):

Intangible Property is property that has value but cannot be seen or touched. It includes items such as:

1. Goodwill.
2. Going concern value.
3. Workforce in place.
4. Business books and records, operating systems, or any other information base, including lists or other information concerning current or prospective customers.
5. A patent, copyright, formula, process, design, pattern, know-how, format, or similar item.
6. A customer-based intangible.
7. A supplier-based intangible.
8. Any item similar to items 3–7.
9. A license, permit, or other right granted by a governmental unit or agency (including issuances and renewals).
10. A covenant not to compete entered into in connection with the acquisition of an interest in a trade or business.
11. Any franchise, trademark, or trade name.
12. A contract for the use of, or a term interest in, any item in this list.<sup>48</sup>

Importantly, a financial interest in a patent is not considered an intangible, nor is most computer software.<sup>49</sup> Therefore, any financial instrument using an intangible as security is not capitalized while the underlying asset is capitalized (similar to the way financial instruments are secured by physical assets).

Which intangible assets may be capitalized and which are deductible is the subject of numerous IRS regulations. For example, in December 2003, the IRS issued updated regulations on the capitalization of intangible assets.<sup>50</sup> These regulations were designed to clear up uncertainty caused by the 1992 U.S. Supreme Court decision in *INDOPCO, Inc. v. Commissioner* (503 U.S. 79), which held that payments that created a “significant future benefit” must be capitalized rather than expensed. The heart of the case was

whether transaction costs, such as investment banking fees, can be capitalized, but the ruling created confusion about how to treat numerous other transaction costs.

The new regulations require that most costs to acquire or enhance an intangible asset be capitalized.<sup>51</sup> As Feinschreiber and Kent explain, “this transaction cost rule recognizes that the taxpayer is obligated to capitalize the following amounts: the cost of the asset itself, and the ancillary expenditures for the acquiring, creating, or enhancing the intangible asset.”<sup>52</sup>

The ability to depreciate purchased intangible assets can result in major tax savings in some acquisitions, such as Johnson & Johnson’s purchase of Pfizer’s consumer health care division and the brands of Benadryl, Neosporin, and Visine.<sup>53</sup>

However, other regulations apply to other types of intangible assets, such as research and development costs, which are fully deductible. As the Congressional Budget Office noted, companies have options when dealing with the deductibility of research expenses:

The IRS allows firms to deduct R&D expenditures in the year in which they are made; amortize them over at least 60 months, once the work begins to benefit the firm; or write them off over a 10-year period.<sup>54</sup>

Looking at it this way, the cost of obtaining or defending a patent is capitalized while the cost of the research that leads to the patent is deductible.

As a recent Treasury Department report pointed out, expensing intangibles and depreciating physical assets results in the following situation:

Income from investment in intangible assets (e.g., R&D and advertising) generally receives more favorable tax treatment than does income from investment in tangible assets (e.g., plant and machinery). Investment in intangibles might be excessively encouraged by the tax system, relative to investment in tangible assets.<sup>55</sup>

However, there is no evidence that the U.S. is systematically over-investing in intangibles and under-investing in tangible assets. Thus, it is unclear to what extent the difference in the tax treatment between expensing and depreciation influences the investment in intangibles versus tangibles.

Beyond the issue of expensing and depreciation, other tax incentives apply to the creation of certain intangibles. A well-known example is the research and experimentation tax credit (commonly recognized as the R&D tax credit). The standard credit is 20 percent of qualified research expenditures above a certain base. But there are variations and options, including an alternative incremental tax credit, an alternative simplified credit, a basic research credit for sponsored university research, and an energy research credit.<sup>56</sup>

Likewise, there are numerous incentives for investing in human capital. A recent Treasury Department report said:

These include the tax exclusion of scholarships, fellowships, and the value of reduced tuition; education tax credits; deduction of student loan interest; tax advantaged education saving accounts; deductibility and exclusion of employer-provided education expenses; deductibility of tuition; and allowing students beyond the normal age cut-off to qualify as eligible children when computing their parents' earned income tax credit and their parents' dependent deduction.<sup>57</sup>

Most of these incentives, however, deal with individuals seeking more education and not with incentives to organizations to improve the skills and knowledge of their workforce (human capital). The overall benefit of the deductibility of employer-provided educational expenses and the business deduction for work-related education is limited.<sup>58</sup>

### **On the income side**

The tax treatment of deductions is important. But how income from intangibles is taxed is much more important for public policy purposes. At issue is the determination of where the ownership of those assets resides and is therefore taxed. Fisher puts it this way:

Intellectual property rights are often created in relatively high-tax jurisdictions. As a result, tax departments in multinationals (and their advisers) frequently look at ways of structuring operations in an attempt to reduce the overall tax burden, usually involving a number of territories and the transfer of, or the creation of an interest in, intellectual property.<sup>59</sup>

Various jurisdictions are offering low tax rates on income from intangibles, specifically on royalties from intellectual property. For example, Ireland has long been seen as the location of choice for intellectual property because of its exemption of patent income from corporate taxation.<sup>60</sup> More recently, the Netherlands has entered the race to become a tax haven for intangibles.<sup>61</sup> The website LowTax.Net describes the situation this way: "The Netherlands is an extremely attractive jurisdiction in which to locate a royalty conduit company."<sup>62</sup>

The Irish would surely dispute that they are an IP tax shelter; they see their policy as a tax incentive to locate R&D in Ireland. As the law firm of A&L Goodbody pointed out in its briefing paper *The Irish Patent Exemption*:

The basic requirements for the patent exemption have always been that the work which went into developing and having a patent registered must have been carried out in Ireland, other than work which is ancillary to the main work carried out in Ireland.<sup>63</sup>

Ironically, this requirement was repealed in April 2007 after the European Commission complained that it hampered the rights of establishment and free movement of services.<sup>64</sup> As of January 2008, the requirement was broadened to require work be done in any European Union (EU) nation and the exemption be capped at €5 million in aggregate.

In any event, as Simpson points out, there are ways to game the system:

A common device is to take successful, patented American ideas and then develop new generations of them—with help from an offshore research division. The ownership of the new version (and profits on licensing it) can then legally be shared between the U.S. parent company and the offshore unit.<sup>65</sup>

The question is how those profits (and royalties) are shared and what price the parent company receives when it transfers the intellectual property to its offshore subsidiary.

The U.S. tax code requires that—

prices charged by one affiliate to another, in an intercompany transaction involving the transfer of goods, services, or intangibles, yield results that are consistent with the results that would have been realized if uncontrolled taxpayers had engaged in the same transaction under the same circumstances.<sup>66</sup>

The efficacy of the requirement for arms-length pricing is the subject of debate, especially given the complexity of these cost-sharing arrangements. Cole argues that “the code now requires that a U.S. taxpayer take into account the full value of U.S. intangible property transferred overseas, whether in exchange for stock or cash, taking into account the income derived from the transferred intangible after the transfer.”<sup>67</sup> However, Sullivan said that “determining fair terms for interaffiliate transactions involving intangible assets involves a great deal of subjective judgment, so those determinations are a constant source of conflict between drug companies and the IRS.”<sup>68</sup>

The IRS adopted new regulations on this issue effective January 1, 2007,<sup>69</sup> but concerns remain. In statements to both the Senate Finance Committee and the Senate Permanent Subcommittee on Investigations in 2006, then IRS Commissioner Mark Everson called this “a high-risk compliance concern”:

Taxpayers, especially in the high technology and pharmaceutical industries, are shifting profits offshore through a variety of arrangements that result in the transfer of valuable intangibles to related foreign entities for inadequate consideration.<sup>70</sup>

On April 5, 2007, an IRS-issued “Industry Director Directive” stated the following:

Cost Sharing has been identified as a Tier I issue and is one of the most significant compliance challenges facing LMSB [the Large to Mid-Size Business Division of the IRS]. Cost Sharing Arrangements (CSAs) are often used by taxpayers inappropriately to transfer intangible assets and associated profits offshore to related foreign affiliates for inadequate consideration. LMSB Compliance estimates that inadequate consideration has resulted in material underreporting of taxable income by U.S. Corporations.<sup>71</sup>

On the other hand, Hardgrove and Voloshko argue that the concern is overblown and that “properly done it [a global IP strategy] can save tax without abusive or underhanded methods.”<sup>72</sup>

Within the U.S., there is a similar concern. Many states exempt intangible property from state and local property taxes. Most of these exemptions are for financial intangibles (stocks, bonds, and other securities) rather than intellectual property (patents and copyrights). But intellectual property is often covered as well. For example, Montana defines intangible property as that which “has no intrinsic value but is the representative or evidence of value, including, but not limited to, certificates of stock, bonds, promissory notes, licenses, copyrights, patents, trademarks, contracts, software, and franchises.”<sup>73</sup> In Kentucky, intangible property is exempt, but “research libraries” are considered tangible property subject to fair-market-value tax.<sup>74</sup>

Nevada and Delaware are seen as tax-haven states for intangible income. Nevada has no corporate income tax and Delaware does not tax income on intangibles. Taxes are reduced by setting up an “intangibles holding company”—also known as a Delaware Holding Company or a Passive Investment Company—which owns the intangible assets. The income from the intangible assets is considered received in Delaware or Nevada and is therefore not taxed.<sup>75</sup>

This strategy is often used by retail companies and franchises. As Stansky explains:

First, a national retailer creates an intangible holding company in a state that does not tax royalty income, such as Delaware. The retailer then assigns its trademarks to the holding company, which it owns. The holding company licenses the trademarks to the retailer, which, in turn, pays the holding company for the use of the marks.

In states where it may do so, the retailer takes a deduction on its corporate income tax returns for the royalty or licensing fees paid to the holding company. That leads to less taxable income in those states.<sup>76</sup>

But as the Bureau of National Affairs reported, “States have increasingly resisted a corporate tax planning strategy involving the deduction of royalty payments for intangible property rights held by an out-of-state subsidiary.”<sup>77</sup> The key feature is the “substance” presence rule. As one holding company management firm warned, “an intangible holding company must be prepared to satisfy [to] other states as to its substance in Nevada or Delaware.”<sup>78</sup>

This is the same issue that arose concerning the application of state sales tax to Internet sales. In *Quill Corp. v. North Dakota*, 504 U.S. 298 (1992), the U.S. Supreme Court ruled that states could not tax an out-of-state catalog company that lacked a physical presence in the state. However, state courts have recently held that *Quill* does not shield intangible holding companies from corporate income taxes on their in-state earnings, arguing that the physical presence argument works both ways. Since these companies have no business substance or business purpose in their supposed home state of Delaware or Nevada, they are therefore subject to taxation where the income was earned.<sup>79</sup> Recent cases in Oklahoma,<sup>80</sup> New Jersey,<sup>81</sup> and West Virginia<sup>82</sup> have upheld this argument and found intangible holding companies liable for state taxes. In addition, a number of states have laws on their books that effectively nullify this tax strategy.<sup>83</sup>

The federal government also has afforded certain intellectual property royalties special treatment, admittedly in a very minor fashion. Last year, Congress changed the tax code to allow sales of song collections to be taxed at the capital gains rate rather than as ordinary income (see Sec. 204 of P. L. 109–222) and to allow songwriters to amortize their expenses over five years (see Sec. 207 of P.L. 109–222). Both of these changes were relatively noncontroversial because royalties on songs are paid differently than on other copyrighted materials. Songwriters are paid royalties every time the song plays and must pay taxes immediately; writers can spread out their royalty payment and taxes over a number of years.<sup>84</sup> There seems to be little interest in expanding this form of tax relief to income from other intangibles.

Interestingly, the combination of expensing and income give rise to an opportunity for tax arbitrage. The new Irish law on the patent income exemption has lead to fears in that nation that companies will move their R&D out of Ireland to high-tax-rate countries.<sup>85</sup> Companies could expense their R&D costs in a high-tax country to lower their taxable profit, while claim the income from the royalties in a low-tax country.

## ***Intellectual Property Rights***

As stated previously, one type of intangible asset is classified as intellectual property. These assets include patents, copyrights, and trademarks, and are specifically protected as exclusive property by law. Article I, Section 8 of the U.S. Constitution grants Congress the power to—

promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.<sup>86</sup>

Sometimes trade secrets are included as intellectual property since they can also be protected by law. In addition, contract law can shield other types of intangibles, such as noncompete covenants. But these assets are not considered IP.

Patents and copyrights long predated the Constitution. Patents—the state grant of a monopoly—were known in the ancient and medieval world. The word patent comes from the Latin *litterae patentes*, meaning an open letter. Such letters were used by medieval monarchs to confer rights and privileges.<sup>87</sup> But these were royal favors and not meant for a specific invention; that happened much later. The antecedent of U.S. patent and copyright law is the British Statute of Monopolies of 1624 (patents) and the English Statute of 1710 (copyrights).<sup>88</sup>

### **Patents**

Patents are issued by the U.S. Patent and Trademark Office (U.S. PTO). A patent is a government grant of a monopoly right to an invention. A patent is described in law as “the right to exclude others from making, using, offering for sale, or selling” the invention in the United States or importing the invention into this country. It is important to note that a patent does not confer the right to manage the invention, but the right to exclude others from managing it.<sup>89</sup> As such, a patent right must be enforced through the courts by suing the alleged infringer. Remedies in a patent infringement case include injunctions against the infringing product, damages, and royalties.<sup>90</sup>

In exchange for this grant, the patent applicant must disclose all relevant information to the public in the form of the application. As such, patents fulfill the Constitutional mandate of promoting “the progress of science and useful arts” in two ways. First, by granting a limited monopoly, they create a financial incentive for the development and commercialization of the invention. Second, by requiring disclosure, they spread knowledge that might have otherwise been locked up as a trade secret. While patents are not granted for inventions that are the same as a previously patented invention, many patents build on the knowledge disclosed in previous patents.

Patents are generally only enforceable within a nation’s boundaries or at the border (in the case of imports). There is, however, an anti-circumvention clause in the patent law that deals with supplying components in the United States for assembly abroad.<sup>91</sup> In addition, the lack of sufficient intellectual property rights is considered an actionable

trade subsidy under international trade law. Countries may impose trade sanctions, such as higher tariffs, on the goods and services coming from another nation found to have lax intellectual property rights.<sup>92</sup> Ironically, intellectual property rights (IPR) have recently figured in a trade dispute in the reverse fashion: a nation was granted the right to override IPR protections as a sanction against the U.S. for compensation for a trade violation (although the case involved copyrights not patents).<sup>93</sup>

Two international treaties govern cooperation among nations specifically on patent law: the Patent Cooperation Treaty and the Paris Convention for the Protection of Industrial Property, known as the Paris Convention.<sup>94</sup> The Paris Convention covers a variety of “industrial property,” including patents, industrial designs, trademarks, and trade names. The Patent Cooperation Treaty is more process-oriented, dealing with “cooperation in the filing, searching, and examination of applications for the protection of inventions, and for rendering special technical services.”<sup>95</sup>

It should be made clear that the subject of patents is currently in flux. Concerns have been raised that excessive patenting and poor patent quality are harming the innovation process.<sup>96</sup> Issues include the expansion of patents to business processes, the severity of the remedies, the process of enforcement (“patent trolls”), the question of whether an invention is “novel,” and other concerns. Patent law has been a regular subject of recent Supreme Court cases and patent reform legislation is pending in Congress. As of this date, the current patent system is in danger of creating more confusion over the enforceability of patents,<sup>97</sup> which could create additional risk for the monetization of intangibles.

## Copyright

Like a patent, a copyright is a legal grant of a monopoly. A copyright conveys the sole right to publish or to perform an original work. A copyright also prohibits derivative works without the permission of the copyright holder. Copyright covers “(1) literary works; (2) musical works, including any accompanying words; (3) dramatic works, including any accompanying music; (4) pantomimes and choreographic works; (5) pictorial, graphic, and sculptural works; (6) motion pictures and other audiovisual works; (7) sound recordings; and (8) architectural works.”<sup>98</sup>

Unlike patents, the copyright is not granted by a government agency after a review process. A copyright comes into existence with the creation of the work “in fixed form.”<sup>99</sup> A copyright may be registered with the U.S. Copyright Office in the Library of Congress and a notice of copyright (usually the symbol ©) placed on a copyrighted work. However, neither of these actions is required. The copyright exists automatically.

Recently, alternative forms of copyright have emerged. Two of the most widespread are the Creative Commons and the free and open source software licenses. Creative Commons was established to cope with growing problems resulting from the automatic granting of copyright. Prior to the Copyright Act of 1976, copyrighted works had to be registered and a notice of copyright was required. Since the elimination of this

registration requirement, it has sometimes become problematic to find and secure permission to use a copyrighted work. While the copyright law allows for “fair use” without the copyright holder’s permission, the definition of what is covered under that exception is somewhat unclear.<sup>100</sup>

Under the Creative Commons, an author can register differing levels of rights. The system “defines the spectrum of possibilities between full copyright—*all rights reserved*—and the public domain—*no rights reserved*” (emphasis in original).<sup>101</sup> An author can specify what level of rights they retain; they can waive all rights to the work or waive only some rights in specific cases. For example, an author may allow unlimited reproduction/republication of a work for noncommercial purposes while prohibiting the creation of derivative commercial works without permission.

Free and open source software licenses cover a number of types of licenses that generally allow the sharing of software without permission or the payment of royalties.<sup>102</sup> Often known as a “copyleft,” the purpose of these licenses is to require that the software continue to be freely shared. Developers of the GNU operating system—pioneers of open source software—explain it this way:

The simplest way to make a program free is to put it in the public domain, uncopyrighted. This allows people to share the program and their improvements, if they are so minded. But it also allows uncooperative people to convert the program into proprietary software.

[C]opyleft says that anyone who redistributes the software, with or without changes, must pass along the freedom to further copy and change it.<sup>103</sup>

Copyrights have long lives, well beyond those of patents. Current law states that copyrights remain for the life of the author plus 70 years. After the copyright expires, the work becomes part of the public domain.

As with patents, enforcement of copyrights is generally through the courts. Remedies include seizure of the infringing goods, damages, and criminal charges. Unlike patents, however, there are some compulsory licenses required by the Copyright Act, including royalty fees from cable operators and satellite carriers for certain retransmission and from importers or manufacturers for distributing digital audio recording products. The U.S. Copyright Office manages these fees.

Copyrights, again like patents, are a matter of national law. However, international treaties, especially the Berne Union for the Protection of Literary and Artistic Property (Berne Convention) and the Universal Copyright Convention (UCC), govern the protection of foreign copyright holders.<sup>104</sup>

## **Trademarks (the Lanham Act)**

The Lanham Act (Title 15, Chapter 22 of the U.S. Code) covers trademarks and service marks. According to the U.S. PTO, a trademark is “a word, phrase, symbol, or design, or a combination of words, phrases, symbols, or designs, that identifies and distinguishes the

source of the goods of one party from those of others.”<sup>105</sup> Trademarks apply to goods; service marks apply to services. The term trademark, however, is usually used to cover both trademarks and service marks. There are also certification marks, collective trademarks, and defensive trademarks.<sup>106</sup>

Unlike patents and copyrights, the rights conferred under a trademark are not absolute. The standard is not simply unauthorized use but whether such use causes confusion, deception, or misrepresentation. In addition, a mark must be used to be enforced. Nonuse can result in the abandonment of the mark and the removal of the mark from U.S. PTO registration. Likewise, a mark may at some point be deemed generic (and part of the public domain) if it becomes commonplace, such as the term Aspirin.

Trademarks need not be registered with the U.S. PTO, but such registration helps in enforcement actions. Registration also assists in the search for, and the resolution of, any conflicting marks. It also prevents the trademarking of common words or phrases that are part of the public domain.<sup>107</sup>

International treaties that apply to trademarks include the Paris Convention, the Inter-American Convention for Trademarks and Commercial Protection (the Pan-American Convention), and the Buenos Aires Convention for the Protection of Trade Marks and Commercial Names.

## **Trade Secrets**

Trade secrets are another form of intellectual property, although they are sometimes not included in the IP category. As Quinn explains, “a trade secret is any valuable business information that is not generally known and is subject to reasonable efforts to preserve confidentiality.”<sup>108</sup> Unlike patents, copyrights, and trademarks, trade secrets are protected by both federal and state law—the 1996 Economic Espionage Act (EEA) at the federal level and the Uniform Trade Secrets Act at the state level.

The EEA created a federal trade secrets act to deal primarily with foreign economic espionage, but it was rewritten to comply with international trade treaties to treat U.S. citizens and foreign nationals the same.<sup>109</sup> Unlike state laws, which are civil with private right of action, the EEA is a criminal statute and the government must prosecute violations. While not as common as state trade secret cases, the U.S. Justice Department has prosecuted 35 trade secret cases since 2000.<sup>110</sup>

The Uniform Trade Secrets Act, which virtually all states have adopted, prescribes the remedies in cases of misappropriation of trade secrets, which are defined as—  
information, including a formula, pattern, compilation, program device, method, technique, or process, that: (i) derives independent economic value, actual or potential, from no being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.<sup>111</sup>

That last part of the definition is important. Unlike patents or copyrights, the effort of maintaining secrecy is critical to maintaining the right.

Nor does trade secret law grant protection in all cases. The criterion for relief is misappropriation not infringement. One law firm explains it this way:

Trade secrets are not afforded the exclusivity provided by patent protection, since third parties are at liberty to independently develop the subject matter of a trade secret or to take a product and perform reverse engineering until the trade secret is discovered.<sup>112</sup>

On the other hand, a trade secret need not be actively used in the conduct of business. It just needs to be information of a commercial value. It may be, for example, an alternative production process that a company chose not to use.<sup>113</sup>

However, a trade secret is something that ultimately only exists through litigation. Its existence is only proven through a court finding applying six tests from the Restatement (First) of Torts, as Halligan and Weyand point out.<sup>114</sup> Such trade secrets cases are not always open and shut. As Pooley explains, “despite the widespread adoption of the Uniform Trade Secrets Act, trade secret principles continue to develop primarily through the common law.”<sup>115</sup>

## **Federal Technology Transfer**

Special mention must be given to the laws covering government-created intellectual property. Transfer of government-funded technologies is generally covered under a number of laws and provisions, including the Stevenson–Wydler Technology Innovation Act of 1980 (P.L. 96–418); the Patent and Trademark Law Amendments Act of 1980, otherwise known as the Bayh–Dole Act (P.L. 96–517); the Federal Technology Transfer Act of 1986 (P.L. 99–502); and the Technology Transfer Commercialization Act of 2000 (P.L. 106–404).<sup>116</sup> This set of laws governs how the federal government funds research with industry (either through a government laboratory or through a grant to a university) and how the rights to that and other federally funded research are controlled. Specific to the monetization of intangibles, these laws establish the ownership of federally funded intellectual property and the sale and licensing of that IP by the federal laboratory or university.

## **Intellectual Property and International Law**

Two important international organizations need to be mentioned with respect to the protection of intellectual property. The first is the World Trade Organization (WTO).<sup>117</sup> As mentioned above, intellectual property rights are included in international trade agreements, including those administered by WTO. The Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement established the framework for international enforcement of intellectual property rights through trade law and for dispute resolution procedures. Under TRIPS, one nation may impose trade sanctions (such as

higher tariffs) on another nation that fails to adequately protect intellectual property. As of January 2008, 23 TRIPS cases have been filed with the WTO.<sup>118</sup> The U.S. law that triggers a TRIPS dispute is known as “Special 301.” A subsection of the Trade Act of 1974, Special 301 allows the U.S. Trade Representative (USTR) to proceed with enforcement actions against other nations that may be using intellectual property laws to harm American companies in violation of TRIPS. The USTR also compiles an annual Special 301 report on compliance by other nations.

The World Intellectual Property Organization (WIPO), a specialized agency of the United Nations created in 1967, has the mission of “promoting the progressive development and harmonization of IP legislation, standards, and procedures among its Member States.”<sup>119</sup> As such, WIPO is the primary administrative organization of the Paris and Berne Conventions, and 22 other IP treaties.

### **Intellectual Property and Antitrust**

The intersection of intellectual property protection and antitrust is a special area of interest. Since IP protection is a grant of a monopoly right, it is important to determine how that right affects and is affected by antitrust policies designed to prevent monopolies. Two recent reports by the Department of Justice and the Federal Trade Commission have looked into the issue. The first was a review of patent law.<sup>120</sup> The second looked at antitrust enforcement.<sup>121</sup> Licensing is an issue of specific concern.<sup>122</sup> Guidelines issued in 1995 state that IP protection is not presumed to create “market power” (i.e., a monopoly or oligopoly) in the antitrust context and that existing antitrust analysis is applicable and appropriate for cases where IP is involved.

### **Contract Law and Noncompete Agreements**

Noncompete agreements, which have their own particular quirks and nuances, are another element of contract law that should be mentioned as part of intellectual property. Noncompete agreements or covenants are essentially an attempt to control the use of intellectual capital that remains within an individual (as opposed to that intellectual capital that is codified outside a person in the form of a patent or copyright). Because they are part of contract law, the enforcement of these agreements varies from state to state. In California, noncompete agreements are considered illegal under Business and Professions Code Section 16600. Agreements made in other states are also generally found to be unenforceable in California. Nevada, Arkansas, Washington, Montana, North Dakota, Minnesota, Wisconsin, Connecticut, West Virginia, and Oklahoma are also seen as jurisdictions that do not enforce these agreements.<sup>123</sup>

In other states, noncompete agreements are generally subject to a reasonableness test. As Klingshirn puts it:

Courts have traditionally frowned upon restrictions placed by employers on their employees’ right to find and make a living. However, courts will enforce noncompete agreements if—

- the employer proves that it has a legitimate business interest to protect by restricting its employee’s right to compete against it
- the restriction on the employee’s right to compete is no greater than that necessary to protect the employer’s business interest
- the covenant not to compete is supported by consideration, meaning that the employee received something in exchange for it.<sup>124</sup>

Research has found that noncompete agreements can be an effective way for a company to decrease the mobility of its star employees.<sup>125</sup> However, such restrictions may have a detrimental impact on the ability of a geographical area to foster economic development.

## ***Perfection and Bankruptcy Laws***

Two sets of commercial laws are especially important to the use of assets as collateral, either directly in a loan or in an asset-backed securitization: the Uniform Commercial Code (UCC) and federal bankruptcy laws.

The UCC serves as the basic business law in the United States, covering business and commercial transactions from sales to borrowing. Since it covers commercial transactions within a state (not necessarily interstate commerce), the UCC is a state law. The “uniform” part comes from the adoption of a standardized set of laws in each of the state and the District of Columbia.

Article 9 of the UCC covers secured transactions and the perfection of secured interests.<sup>126</sup> Perfection simply means the priority of creditors to a secured loan. In other words, Article 9 of the UCC determines who gets what in cases of default. As the Texas Secretary of State’s office puts it:

In plain language, the Uniform Commercial Code allows a creditor to notify other creditors about a debtor’s assets used as collateral for a secured transaction by filing a public notice (financing statement) with a particular filing office.<sup>127</sup>

Since these are state laws, filings take place with the designated state office.

For most of us, the only time we are a party to a recorded financing statement is when we record our home mortgage. But the UCC covers a variety of assets types. In the late 1990s, an effort was undertaken to substantially revise Article 9 to both simplify and expand its scope. These revisions, which became effective in 2001, broadened the definition of intangibles to include, for instance, software and embedded software as a part of other goods and the definition of proceeds to include IP royalties.<sup>128</sup>

The revisions to Article 9 also helped clarify the filing location as well as the scope of assets. As Schwarcz explains:

The problem with intangible assets is that it is often unclear where the collateral is located or where it originated from. Article 9 UCC improved this situation by making the location of the debtor—as opposed to the location of the collateral—determine the jurisdiction whose law governs perfection; and by clarifying where

a debtor is deemed to be located. The former point is more relevant to tangible assets; but, the latter one is quite significant to intangible asset-based securitization.<sup>129</sup>

Yet the revision did not completely solve the problem, especially for patents. In addition to filing a financing statement (often called a UCC–1 filing) at the appropriate jurisdiction, a patent, trademark, or copyright holder may also file a security agreement or conditional assignment with the U.S. PTO or the Copyright Office, as appropriate.

This dual filing system creates a less-than-perfect situation. In a report to the U.S. PTO, Murphy noted that “secured financings involving intellectual property are currently caught between the statutory schemes governing intellectual property rights, essentially a federal title system, and the UCC Article [9] state encumbrance system.”<sup>130</sup>

As a result, it is common for lawyers to recommend that security interests be filed with both the U.S. PTO or the Copyright Office and the UCC–1 jurisdiction.<sup>131</sup> While this remedy gives some level of protection to the creditor, it does not solve the problem. For one thing, dual registration increases the transaction costs. It also does not eliminate the uncertainty surrounding who else may have a security interest (and who may not have filed in all correct places). Murphy notes that:

The result of this legal complexity is that creditors making a good faith effort to comply with statutory perfection requirements risk complying with the inappropriate statutory scheme and losing their interest in the collateral—the very risk which secured financing is supposed to eliminate.<sup>132</sup>

Some proposals that have surfaced to remedy the problem are discussed later.

Federal bankruptcy laws add another dimension, especially concerning the executory contract portion of any licensing deal. For example, Section 365(n) of the Bankruptcy Code protects the right of a licensee of IP in the case of the IP owner’s bankruptcy. But as Borod and Cassidy note:

Section 365(n) protects only the licensee’s rights in the patent or copyright, not ancillary contractual obligations of the licensor to provide technological support or other services. Accordingly, a bankrupt licensor could reject provisions in the licensing contract that require the licensor to perform functions in support of the licensed intellectual property.<sup>133</sup>

Therefore, the licensor could be freed from any obligation to provide technical support or to defend the IP from infringement.

It should be noted that the law with respect to ownership of and security interests in intangibles continues to evolve. For example, the U.S. Bankruptcy Court for the District of New Jersey ruled in 2004 that UCC–9 overrides the New Jersey Alcoholic Beverage Control Act and allows a liquor license to be used as collateral.<sup>134</sup> On the other side, in 2005, the Bankruptcy Appellate Panel of the Sixth Circuit ruled that a former employee of a debtor company could be released from his noncompete covenant as part of a

settlement between the two, even though the intangible assets (including the covenant) had been bought by another company in an earlier settlement.<sup>135</sup> Most recently, the United States Court of Appeals for the Federal Circuit ruled that patent law took precedent over bankruptcy law in a case where one bankruptcy trustee held title to a patent but the bankruptcy settlement gave the right to sue for infringement to a separate trustee.<sup>136</sup> In a 2-to-1 decision, the Court ruled that only the title holder had the right to sue under patent law.

## ***Securities and Banking Regulations***

The impact of securities and banking laws and regulations goes beyond the SEC disclosure requirements mentioned earlier. As we discuss in the next section, intangibles also constitute a class of assets that can be collateralized and securitized. Any securitization of intangible assets is subject to the same regulations as any other asset class. However, exactly how the securities laws and regulations apply to, and affect, intangibles is sometimes unclear.

Many securitizations are purchased and sold in private placements to institutional investors like pension funds and insurance companies. Consequently, these securitizations do not require the same disclosure guidelines as mutual funds, for instance, that trade on open markets. This does not mean, however, that asset-backed securities are trading unregulated. SEC regulations cover asset-backed securitization. These rules have expanded the disclosure and information-sharing requirements of securitizations, especially in response to the Sarbanes–Oxley Act, to assuage investor concerns while at the same time expanding securitization asset definitions. Their intent is to “increase market efficiency and transparency and provide more certainty for the overall ABS [asset-backed securities] market and its investors and other participants.”<sup>137</sup>

The new rules, including a new Regulation AB, codify past rules and expand the reporting requirements. The requirements have generally been viewed positively, although there is some concern over the new requirement for an annual servicing assertion and accountant’s attestation.<sup>138</sup> However, it is unclear how these rules apply specifically to securitization of intangible assets compared with any other form of asset-backed securities. The extent to which intangible asset-backed securities are seen as especially risky or esoteric could determine whether they are subject to special provisions.

In addition to the specifics of asset-backed securities, the entire range of securities laws and regulations may have an effect on the monetization of intangibles. As discussed earlier, SEC regulations cover the disclosure of financial and nonfinancial information, which may affect how intangibles are viewed by the financial community. Other rules may also apply—rules that have an unforeseen impact on intangibles until they are applied to a specific case.

Banking regulations also may specifically impact the use of intangibles as collateral. For example, new banking standards on lending risk are coming into force under the Basel II

Capital Accords.<sup>139</sup> These and other banking regulations have an indirect impact on the formation of intangibles.

Likewise, rules and regulations governing federal lending programs, such as those of the U.S. Small Business Administration (SBA), also indirectly impact intangibles. The 7(a) program provides SBA guaranties for a portion of a loan from a commercial lender.<sup>140</sup> CDC/504 loans are provided with partial guarantees through certified development corporations (CDCs) for projects involving tangible assets, such as renovations, facilities construction, and equipment purchases.<sup>141</sup> The loans are collateralized by the project's assets. However, as we will discuss later, these regulations treat intangibles inconsistently.

## **Financial Markets and Intangible Assets**

Intangible assets do not contain the same characteristics as tangible assets. They don't sit on factory floors, product showrooms, or, for the most part, balance sheets. As we will discuss in greater detail in the next section, their fluid nature often makes them hard to segregate and measure, challenging the ability to discern these assets from other assets, tangible and intangible alike. How does a company, for instance, determine the explicit value of industry experience in its operations? When does the attractiveness of a brand supersede its functions and features? Furthermore, an organization could be completely cognizant of its uniquely competitive intangible assets—company culture, for instance—but be unable to replicate it across regions or to sustain it through market change.

Intangible assets have unique attributes and behaviors that demand different treatment by financial markets. One cannot think of intangibles as a single asset class. There are too many species of intangibles, each with their own characteristics and with specific characteristics of their markets. Some assets, such as cash-flow-generating patents and copyrights, are well suited for existing capital models and value theories. Their values are verifiable by the tangible revenues they have already generated. Consistent returns beget, in the minds of financiers, an expectation of future returns at similar levels. If a patent on a specialized engine part has garnered predictable revenues for the past few years, for instance, it is reasonable to assume that the patent can deliver similar returns in the near future.

But even within the generally well-understood areas of copyrights and patents there are unique market characteristics. For example, in the copyright sectors, there are relatively well-developed markets in certain areas, such as songs and plays, with a standard system of rates and royalty payments. In other areas of copyrighted materials (and even in the supposedly regularized areas), there is more chaos and even an orphan copyright problem.<sup>142</sup> In some areas, such as with much of existing copyrighted material, the revenue stream is episodic. In other areas, there are regular and predictable long-term licensing agreements; for example, in patent and trademarks/brands.

Then there are other intangible assets, like knowledge and culture, where it is very difficult to apply mainstream capital-leveraging techniques. No prevalently accepted valuation model exists to accurately recognize these assets. The market has difficulty effectively defining their value. Lacking market consensus, less universally convincing relative valuation assessments must be used. Consequently, these intangibles may have substantial lower market worth and higher market risk perception.

To understand how intangibles operate in financial markets, it is important to define intangibles in a format that aligns with the practical applications of their financial use. It is then possible to look at methods of incorporating these assets into financial market vehicles and to analyze creative ways to better understand and exploit their true value.

## ***Classification of Intangible Assets***

For clarity purposes, intangible assets can be segregated into these three broad categories: *cash-flow predictable*, *market value comparable*, and *enterprise specific*. These categories capture the various potential capabilities, qualities, and uses of this asset class. While monetization of intangibles will undoubtedly depend on careful analysis of the idiosyncratic features and limitations of each, this classification should help determine the broad boundaries under which these assets can be defined.

*Cash-flow predictable* assets encompass all intangible assets that can be valued using a traditional discounted cash-flow analysis. These assets generate relatively consistent streams of periodic payments to the owner of the asset and serve as a basis for determining expected future revenues, which can then be discounted back to determine a present value for the asset. This asset category includes intangible assets such as royalties, contractual agreements, copyrights, patent licenses, and proprietary right leases.

*Market value comparable* assets are intangible asset classes that do not generate periodic cash flows but can be relatively comparable to like assets in the market. Some of these could very well generate cash flows in the future, but in their present state offer no historical revenue streams from which to gauge their value by cash-flow models. For instance, many companies sit on large caches of unused patents that have not yet been commercialized. Still, these patents tend to have distinct similarities to active patents that do, thus making a market value comparable asset valuation practical.

These assets can be valued either by comparable valuation (determining value by comparing similar assets, much like a real estate appraiser determines house values) or by cost-to-attain methods (simply adding up all the costs required to create or own the asset). These assets could be transferred from one enterprise to another without losing relative value and, due to their transferability, could serve as potential assets for collateralized securitizations and loans. This asset category includes intangible assets such as brands, unutilized patents, information systems, customer networks, formulas, trade secrets, and proprietary rights.

*Enterprise specific* assets encompass all other intangible asset classes. These assets do not directly generate streams of revenue nor are they easily transferred in their current states. In effect, they are only valuable to the enterprise that contains them; outside of the enterprise, they are virtually valueless. These assets do not generally support independent collateralized financing and are by and large only useful for whole-enterprise securitizations.

Valuation of these assets can also be very problematic using prevalently recognized asset valuation techniques. Nonetheless, these assets often account for the preponderance of many firms' overall value. Their value is often recognized wholly in firm valuations and rarely differentiated and segregated out by their specific contribution to the market value of the firm.

These assets pose a significant challenge to the creative financier looking to leverage intangible asset value in the capital markets, but could offer extraordinary financial benefits for those able to do so. Often they serve as some of the basis for projected synergies and high acquisition price justifications in merger-and-acquisition transactions. This category includes intangible assets such as know-how, competencies, culture, training, reputation, employee competency, company commitment, industry experience, customer relationships, and decision-making capabilities.

## ***Monetization Options***

To monetize intangible assets, companies need to understand capital market options. There are licensing mechanisms for turning certain intangible assets, such as patents, copyrights, and trademarks into revenues. But these are limited to the cash flow generated, rather than being the source of large blocks of investment capital. Capital for intangible assets can be garnered from a number of sources, such as banks, equity markets, debt and securities markets, private equity firms and venture capitalists. These resources have varying degrees of understanding of and support for intangible assets, and the opportunities and limitations of each source will dictate their usefulness in monetization.

There are three types of buyers: owners, long-term investors, and speculators. Using the real estate example, the owner buys the house to live in. The investor buys the house to rent out. The speculator buys the house to fix it up and sell it for a profit. All three buyers have their place in the market. In terms of intangible assets, those seeking assets to use them in their own operations (owners) have been almost the only buyers in the market. Long-term investors and speculators are only recently emerging as major market players.

## **Equity Markets**

Much of the focus on intangibles by business leaders and writers is correctly focused on how to identify and use intangible assets, including IP, within the organization for greater revenue generation. The internal use of intangible assets for higher profitability is the easiest form of monetization. The task of capturing that valuation is the job of the equities markets.

The degree to which the equity markets do or do not capture the value of intangible assets is hotly debated. Some have argued that a large portion of companies' stock market value is intangible.<sup>143</sup> It has been estimated that book value is less than 35 percent of market capitalization, and that the total value of intangibles is 79.7 percent of market capitalization (15.5 percent captured within book value and 62.4 percent not reported on the books).<sup>144</sup> Others point to that fact that national statistics show overall market capitalization to be generally below the market value of corporations' tangible assets (mainly real estate).<sup>145</sup>

What is clear is that equity markets have historically valued companies above and beyond their tangible assets. Unlike the loan market, which values assets by their explicit

properties, the equity market seems to incorporate the implicit nature of intangibles in overall firm valuation. Stock prices capture more than just the present value of existing cash flows and the book value of assets. The overall ability of the company to utilize all of its assets, tangible and intangible, to deliver future profits and thus enhance shareholder equity accounts for the market price of company stock.

Research has shown that stock share values reflect the contribution of intangible assets to company profits and growth. For example, the UK Design Council found that British companies with a strong design component (an intangible capability) outperformed other companies in the stock market.<sup>146</sup> In an intensive analysis, Communications Consulting Worldwide concluded that 27 percent of the stock market value of one major U.S. industrial corporation could be attributed to intangibles like reputation.<sup>147</sup> Choi et al. found that “results indicate that the financial market positively values reported intangible assets,” and note “a positive relation between the book value of intangible assets and the market value of common equity.”<sup>148</sup> Stock prices may mimic investors’ long-term expectations of profits, valuing certain intangibles that, as Hall argues, could be expected to become future cash-generating resources for the firm.<sup>149</sup>

However, equity markets also have a painful history of mispricing these assets. Choi et al. also note that “the market’s valuation of a dollar of intangible assets is lower than its valuation of other reported assets.”<sup>150</sup> The dot.com boom was one example of overpricing, where the perceived future value of many Internet enterprises seems now to have been illusory. On the flipside, equity markets also have a proclivity to undervalue intangible assets, as evidenced by the fact that a stock value drops nearly every time company announces a new research program. This inconsistent treatment of intangibles is contrary to the rational market model. Zhang argues that “the predictive power of inferred intangibles is consistent with market inefficiency.”<sup>151</sup>

The degree and expectation of firm value associated with intangible assets differs across industries. Technology and pharmaceutical companies are heavily invested in intangibles and much of their valuation seems to reflect that fact. Nonetheless, accounting standards do not require all of a firm’s intangibles to be valued, and have little means to oversee the numbers that firms report on their financial statements. Investors, one could argue, are more exposed to risk in intangible-heavy industries since they have relatively less information from which to determine accurate firm valuations.

It would seem then that a firm can use some of the embedded assumptions of equity market investors to monetize intangible assets. The stock market expects the intangible assets of companies in intangible-laden industries, like biotechnology or software firms, to be more valuable than those in other industries, like manufacturing. If investors can imagine the value of the intangibles within a firm, their market valuation of the firm could rise as a result. A firm’s reputation and standing in the market, for instance, tends to support higher equity market valuation.

According to a recent survey of 200 Wall Street financial professionals, 62 percent of respondents agreed or strongly agreed that Wall Street takes patent portfolios into

account when assessing company values, but only 22 percent thought patent values were reflected in cash-flow projections or in comparable company/multiple analyses. More than 50 percent thought patent values were uncertain and that they didn't have enough information or knowledge to assess patents.<sup>152</sup>

An inextricable link to market valuation of companies is merger-and-acquisition (M&A) activity, including buyouts (private equity). While not all M&A activities are driven by perceived low stock value, bargain hunting is a major driver. The difference between the market's valuation of a company and what an investor sees as the total value of tangible and intangible assets can trigger the process. It is unclear the extent to which perceptions of intangibles drive M&A activity. It is clear that intangibles are gaining an important role, especially in strategic mergers in technology fields. Often the value of the intangibles is not factored in until late in the process. But Sterne and Laurie argue that IP should be explicitly considered during the target stage in M&A, not just at the end stage of due diligence.<sup>153</sup> They believe that early attention to IP will insure optimal integration of assets and may provide warning signals of future IP problems. The role of intellectual property as part of M&A deals seems to be increasing as legal due diligence on the IP portion of the deals is increasing.<sup>154</sup> In addition, as will be discussed later, securitization of intangible assets is beginning to show up in leveraged buyout processes.

Thus, a common form of monetization of assets (tangible and intangible) is one of the most traditional: sell the company, either in whole or in part, through issuing stock.

A variation of this, somewhat akin to the venture capital route, is to spin off a new company from an existing entity. In this case, the basis for the new company already exists and is simply separated from the parent under different ownership (public or private). Recently, OceanTomo and Blueprint Ventures came together to set up a program to foster technology-based corporate spin-offs.<sup>155</sup>

## Licensing

One of the easiest and fastest ways for monetizing individual intangible assets outside of the capital markets is by creating revenue streams through licensing. As Lamoreaux and Sokoloff point out, trade in patent rights, both through sale and licensing, was well established in the United States by the mid 19<sup>th</sup> Century.<sup>156</sup> Companies sit on stockpiles of underutilized or wholly dormant intangible assets, generally in the form of intellectual property such as patents, trademarks, and trade secrets (proprietary processes or technology). Often a little creative exploration can unearth useful solutions and potential applications for intangible assets, many times even outside of the industry that created them. For instance, a patented design feature used to streamline an aircraft may work to enhance fuel-efficient design in automobiles. Or, a copyrighted rock-and-roll song may contain lyrics and rhythms that work well for the television ad of a motorcycle company. By assessing the real value of these assets and exploring the revenue opportunities they possess, a company can find within itself a treasure trove of unrealized value.

Many firms have found a lucrative market licensing their patents, copyrights, trademarks, and trade secrets to other companies. The most common form of licensing involves trademarks and copyrights. In fact, the entire publishing, film, and music industries are gigantic copyright licensing machines. Licensing of patents is also a standard company operating procedure. While it is true that a company may obtain a significant competitive advantage by having the exclusive rights to a particular technology, it is also true that licensing patents to firms in noncompeting industries does not hurt its competitive standing and can generate significant income for the company. In fact, licensing income often helps to finance additional innovative R&D activities. It has been estimated that IBM receives 5 percent of its total income from licensing revenues; DuPont, 8 percent; and Amgen, 17 percent.<sup>157</sup>

Trade secret licensing is less common than licensing of other forms of intellectual property. The requirement of maintaining secrecy can make sharing of the information difficult. Such a requirement is not necessarily an impediment to licensing, however. For example, in 1881 the formula for Listerine was licensed by its inventor, Dr. Joseph Lawrence, to Jordan Wheat Lambert, founder of Lambert Pharmaceutical Company. Importantly, that licensing agreement was the subject of a major court case that decided that, as Halligan notes, “[e]ven if a trade secret subsequently enters the public domain, royalty payments under trade secret licensing agreements can continue indefinitely.”<sup>158</sup>

For all its normality in the history of business, licensing is still not as commonplace as it could be. The potential for licensing, especially in technology, is still developing. Licensing of technology—also known as technology transfer—is not necessarily a straightforward process. Malackowski notes that “even today, IP licensing remains a hand-to-hand combat business where it often takes six to eighteen months to complete a deal, and this comes at significant costs.”<sup>159</sup>

Both ends of the transaction can be oblique. Often the holder of the patent does not know the value or the possible uses of the technology, does not assess its value to all possible uses within the organization, and does not have means to determine its potential applications across markets outside the one in which the organization operates. Potential users may not even know of the existence of the technology. In addition, technology transfer issues go far beyond simply the identification of the buyer and the seller and the structure of the deal. The use of the technology requires additional transfers of know-how and tacit knowledge as well. As we will discuss later, these difficulties can greatly hinder the process of IP licensing (and sale).

There are two other methods of obtaining cash for intangible assets—generally patents—that are linked to sale and licensing: donations and litigation.<sup>160</sup> Under IRS regulations, intellectual property can be donated to a nonprofit, oftentimes a university. New rules, however, limit the value of the tax deduction of the future royalties.<sup>161</sup> Litigation (discussed later) is also an alternative means of raising cash either through mandatory royalties or through damage awards.

## Sale of IP

Along with licensing, the outright sale of intangibles, especially ones that have the ability to draw varied interest due to their pliability and adaptability, is a common option for raising capital. Take the case of patents, which can be readily applied to other forms of intellectual property. As Abril and Plant have described, individuals, small companies, and even large firms have a limited number of options when it comes to utilizing their patents.<sup>162</sup> They may use the patented technology themselves, building a business around it. However, individual patents are often not enough for a complete product, especially in information technology. Even if the patent is sufficient, for a new drug, for instance, individuals and small companies often do not have the resources necessary to exploit the patent. In the case of a large company, the patent may not be related to their core business. Or it may be part of a larger portfolio of patents needed for a product, some of which are held by other companies. In all of these cases, licensing, cross licensing, and sales of the patent become the strategies of choice.

An example of monetization using the sale and leasing of patents is the \$50 million patent deal between Motorola and GE Commercial Finance. Motorola sold a portfolio of noncore company patents to GE Commercial Finance for cash and a share of future royalties. GE will provide patent licensing, enforcement, and maintenance.<sup>163</sup>

The difficulty in the sale of patents, as in the case of licensing, is one of technology transfer—discussed above. Even if the issues of direct technology transfer are solved, there is the lack of a secondary market for these products. Numerous companies exist to act as brokers and managers for the licensing and sale of patents, but these do not necessarily add up to a secondary market.<sup>164</sup>

Other forms of intellectual property, especially copyrights, have a long history of being bought and sold. For example, singer Michael Jackson and Sony own the rights to some of the Beatles' songs, whereas ex-Beatle Paul McCartney's MPL Music Publishing owns the rights to many old standbys. Again, there are numerous brokers, especially on the music-licensing side of the business.

New mechanisms for buying and selling of patents are emerging. The Danish Patent and Trademark Office runs an online IP Marketplace.<sup>165</sup> There are also Web-based patent exchanges, such as ipAuctions.com and FreePatentAuction.com.<sup>166</sup> The investment firm OceanTomo has pioneered patent auctions.<sup>167</sup> The first auction was held in April 2006, with a number of subsequent auctions. The next auction is scheduled for April 2008. During the first auction, only about half of the items were sold because bidders did not reach the sellers' reserve prices. However, all items were later sold in off-auction floor negotiations.

Another relatively new phenomenon is the emergence of the patent holding company. Such companies buy the patent rights to obtain the royalty rights—and in some case to be able to more aggressively license the technology. One such company, Royalty Pharma, holds the rights to a number of drugs.<sup>168</sup> For example, in 2005, Emory University sold its

royalty rights in a HIV drug to Gilead Sciences and Royalty Pharma for \$525 million.<sup>169</sup> Royalty Pharma purchased the rights to the drug HUMIRA® from AstraZeneca in 2006 for \$700 million.<sup>170</sup>

A variation on this model is Symphony Capital, which provides funding for drug clinic development.<sup>171</sup> Symphony sets up a separate joint venture with the originator of the drug for the clinic development phase. In one deal, Symphony Evolution and the biotech company Exelixis gain access to \$80 million in exchange for the rights to three cancer drugs. The twist to this model is that Exelixis also entered into a repurchase agreement that allows it to buy back the rights at a 25 percent premium.<sup>172</sup>

The dark side of the patent holding company is the so-called patent troll. Such companies are building on the business model of infringement lawsuits to collect royalties and damages rather than licensing. Sullivan explains that—

the term applied to companies that, while having no technological operations of their own, acquire and aggressively assert dubious patents against entire industries, hoping to obtain settlements based upon alleged infringers' desire to avoid the high costs and uncertainty of litigation (especially in jurisdictions, such as the U.S., that afford significant advantages to plaintiffs in litigation or that allow for the imposition of substantial, unrecoupable litigation costs on defendants).<sup>173</sup>

Debate rages over who is and is not a troll and over whether such patent trolls, with their vigorous hunt for infringers, are good for the patent system. Regardless of whether the business model is based on aggressive licensing or on infringement litigation, patent holding companies are becoming an important mechanism for the monetization of intellectual property.

The process of IP sale and licensing may get a boost from the OceanTomo's work to create an Intellectual Property Enterprise Zone to “facilitate technology transfer through a physical collocation of technology buyers, sellers, licensors, and licensees as well as an electronic intellectual property exchange.”<sup>174</sup> The electronic IP exchange will “enable investor and company participation in a broad spectrum of IP-related financial products such as qualified equity listing/co-listing; IP-related indexes, futures, and options; IP-backed debt instruments; patent-rich company IPOs [initial public offerings]; and new IP-based exchange-traded products.”<sup>175</sup> M-CAM is also expanding its financial activities.<sup>176</sup> Additionally, the National Knowledge and Intellectual Property Management Task Force is working on ways of facilitating IP transactions.<sup>177</sup>

## **Banks and Loans**

The most direct way of tapping capital markets is through direct lending. Lending on intangibles is not a completely new phenomenon—even if it is not explicit. As Hall points out:

It's often assumed that banks aren't concerned with measuring and evaluating intangibles beyond characteristics of a business such as goodwill and patents

which currently feature in established accounting standards. Intangible and latent competencies such as competitiveness or quality of management have in fact been incorporated in credit risk analysis for some time, albeit intuitively and subjectively, and with neither a common language nor explicit measurement.<sup>178</sup>

The IP consulting firm Consor Intellectual Asset Management claims that IP lending has moved even beyond that stage, noting:

In the past, many banks and other lenders required that the IP be included in any financing arrangement along with the other assets used to secure the loan. Now, however, IP owners are beginning to realize that these assets can generate significant financing options on their own. Rather than have the IP act as insurance above and beyond the required collateral, trademarks, patents, and copyrights have been pledged as the primary source of collateral in a wide range of situations.<sup>179</sup>

A recent survey of small and medium-sized high-tech companies in New England revealed that 18 percent of the companies surveyed said they had used patents as collateral to secure financing.<sup>180</sup>

Intangibles can come into play in the lending process in two ways: as collateral and as a factor in determining the credit rating. The latter seeks to determine the ability of the borrower to repay the loan and therefore the probability of default while the former helps determine the extent of a possible loss in case of default. The credit rating is the first screen, with collateral then used to adjust the rating depending on the value of the collateral. Traditionally, the credit rating has been determined by cash flow—i.e., the borrower can sustain the debt service requirements. Total debt payments, cash flow, total income, and related factors are used to make this determination.

In fact, it has been argued that collateral (tangible or intangible) is almost irrelevant to the lending decision, which is driven by cash-flow considerations. The Brookings Institution Task Force on Intangibles put it this way:

To be sure, lenders, including banks and insurance companies, and their regulators, consistently reported that their rules and standards for evaluating creditworthiness do not discriminate against borrowers whose assets are primarily intangible rather than tangible. They noted that credit risk does not depend on the nature of the assets; neither intangible assets nor bricks-and-mortar have intrinsic value if they are not used for something. Thus, they insisted, it is the characteristics of an entity's cash-flow generation that determines the amount of credit it should receive.<sup>181</sup>

Others, such as the pathbreaking microloan organization Grameen Bank in Bangladesh, rely on peer pressure and joint liability, rather than on collateral, to insure repayment.<sup>182</sup>

That said, there is still a role for intangibles. First, intangibles can help determine the cash-flow-generation possibilities. Both existing and potential royalty streams directly derived from the intangibles, such as a licensing agreement, can be used to determine

discounted cash flow. Second, collateral is still important in determining the final structure of the credit. For example, a person with the same exact cash flow will get a much better rate on a collateral-backed home mortgage than on an unsecured line of credit.

In the case of intangible assets, large banking institutions like JP Morgan Chase, Credit Suisse First Boston, and Bank of America, to name just a few, offer loans secured by intellectual property assets. These intangibles, generally in the form of patents, trademarks, and copyrights, find some credence from lenders since they are reasonably transferable and can act to support credit institutions against default risk. For example, pop star Michael Jackson used his portfolio of songs by the Beatles and other songwriters to collateralize a \$270 million loan, which was refinanced in 2006.<sup>183</sup>

IP assets have also been used as collateral for second-lien loans and mezzanine debt. Acting as a hedge on loans issued as subordinate financing to tangible, real property assets, these assets can provide the lender with an unencumbered collateral asset in case of default. Generally, these products are only available to large and mid-cap companies with more than \$100 million in assets and strong credit histories. The element that makes these loans so attractive to lenders may be their high rates of return, often 600 to 800 basis points above the London Interbank Offered Rate (LIBOR).<sup>184</sup>

Banks with ties to specific industries can build up an expertise in intangible-based lending. According to Billboard magazine, “In Nashville, SunTrust has been extending loans to artists for about 26 years in which their intellectual property—in this case, their songs—serves as the collateral. [Brian] Williams [SunTrust’s director of music private banking] says that’s a ‘garden variety’ product for his bank as well as for others in town.”<sup>185</sup>

Such lending can be prospective as well. For example, Royalty Advance Funding in Los Angeles offers both cash advances to musicians and songwriters and buys music royalties.<sup>186</sup> Likewise, Content Partners LLC buys the rights to future payments for films, television programming, and music from writers, producers, actors, and others who need immediate liquidity.<sup>187</sup>

Presidential candidate Sen. John McCain (Ariz.) even used his fund-raising list as collateral for a campaign line of credit.<sup>188</sup> In this case, the bank required that the campaign take out an insurance policy to backstop the loan in case the candidate would not be able to continue fund raising activities.

Lending institutions have not traditionally favored loans solely collateralized by intangible assets. Historically, IP has only been used to enhance loans made to real asset or receivables loans.<sup>189</sup> According to Bergelt and Meintzer, IP is used with a loan-to-value ratio of 10 percent to 40 percent compared with 50 percent for physical plant and equipment.<sup>190</sup>

Bankers view IP collateralized assets as loss hedges on loan funds. They evaluate the historical returns correlated to the IP collateral and heavily discount the projected future earnings attributable to the assets. Often they also compare like assets across a company or industry to determine an appropriate valuation. Most IP assets merely act to improve the risk character of the loans they back. While every effort is made to lend only to credit-worthy corporations, commercial bankers will often seek collateral as a credit enhancement for the loan. In a worst-case scenario—absolute payment default of the borrower—the bank can claim the collateral and resell it to cover the loan.

Intangible asset collateralization for lending faces several potential problems. Can the asset ownership be transferred without encumbrance to the lender in case of loan default? Can the banker discern an appropriate, fixed value for the asset over the term of the loan?

Because of these concerns, lenders find the risk of supporting loans with assets limited to only subjective valuations and nebulous risk profiles as too great without either additional tangible collateral or a third-party credit enhancement. Recently, many intellectual asset consultants have sprung up to help satisfy lenders' concerns. Organizations like Brody Berman Associates provide valuation and due diligence services on IP. To reduce risk to the lender, insurance companies like MBIA Insurance Company and Swiss RE New Markets offer a number of forms of credit enhancements.

The combination of valuation due diligence and credit enhancements may make the deal secure enough to be supported by the intangibles. Edwards explains how this works:

GIK Worldwide is a small company based outside San Francisco. They are the patent holders of a groundbreaking technology that delivers high-speed broadcast quality video conferencing over twisted copper wire. Like many such technology rich companies, they were running out of cash and either did not want to or could not tap the venture capital markets. Taibbi Ltd, a Boston based boutique investment bank and IP management consultancy put together a financing package that raised \$17MM [million] in debt provided by Pitney Bowes Capital based on an appraised value of \$57MM. PI-x provided the valuation, Intellectual Property Insurance Services of Louisville, KY provided IP value insurance to protect the lender against loss in value of the patent, and XL Capital of Bermuda provided the financial guarantee. The entire process took less than 90 days to complete.<sup>191</sup>

Two other examples of credit enhancements by IP Innovations (IPI) provide further illustrations. In late 2004, GMAC Commercial Finance provided a \$43 million loan to Palladium Equity Partners, a New York private-equity firm, backed by the trademark of its Wise Foods snack-food lines. The five-year deal was credit-enhanced by IPI, which guaranteed \$7 million of the deal in exchange for a priority-secured position on all the IP of Wise. This deal used the brand and trademark value of the snack-food company to collateralize the term loan. The intangible assets were the sole collateral for the deal.<sup>192</sup> In September 2004, IPI also backed a \$15 million credit facility issued by London's Lloyds TSB to Cambridge Display Technology (CDT), a maker of polymer organic light-

emitting diodes for flat-panel displays. The three-year revolver loan was supported by CDT's patent and trademark assets.<sup>193</sup>

Another interesting twist is the use of intangibles in the bankruptcy process. As Aston explains:

Intellectual assets—including IP and intangibles—have taken on a new level of importance, respectability, and legitimacy for those institutions involved in bankruptcies. For example, providers of IP financing or loans to insolvent companies, or exit financings for those emerging from Chapter 11, often consider using the company's intellectual assets or IP as collateral.<sup>194</sup>

Nonetheless, overt market prevalence of IP collateralized loans has yet to emerge. Many lenders still do not feel comfortable with the assets. They question how the assets should be accurately valued and financially projected. Patent infringement or brand-name erosion, for instance, could greatly diminish an IP asset whose value had been supported by a strong history of financial returns and renowned standing. Eustace noted this in his 2000 paper *Intellectual Property and the Capital Markets*: “With respect to the use of intangible assets as debt security, in the mainstream corporate lending market, bankers generally do not take explicit account of intangibles as collateral for loans.”<sup>195</sup> He acknowledged that in Europe there are “a range of issues for the city banks and investment institutions, whose lending policies and credit risk models face deep-rooted conceptual and practical difficulties in keeping pace with the changing corporate value schema.”<sup>196</sup> A 2006 report by the Organization for Economic Co-operation and Development (OECD) showed some progress, stating that “[g]reater attention is being paid in OECD countries to the use of IP as collateral for bank loans,” but that use “of IP as collateral for bank loans remains limited, largely because of limitations in valuation.”<sup>197</sup>

As banks start to better understand IP assets, they will undoubtedly begin to greatly enhance their use of them to leverage loans and to make confident in-house credit-analysis decisions.

Many intangible assets, though, are enterprise-specific, making it difficult if not impossible to transfer ownership rights. They do not serve as useful loan collateral. While enterprise-specific intangible assets such as firm competency, reputation, and managerial expertise support the credit decision of the banker, they are not likely to serve as defined credit enhancements on their own. However, short-term lines of credit are often extended collateral-free and undoubtedly reflect the banker's recognition of these factors as critical value components in the underwriting of the loan. Certainly the relationship between company and banker, fostered from previous dealings, provides a valued form of asset that acts like tangible collateral.

### **Asset-backed Securitization and the Securities Market**

Another route to the capital markets is through the debt market using the mechanism of an asset-backed security. The SEC defines an asset-backed security as—

securities that are backed by a discrete pool of self-liquidating financial assets. Asset-backed securitization is a financing technique in which financial assets, in many cases themselves less liquid, are pooled and converted into instruments that may be offered and sold in the capital markets.

[P]ayment on the asset-backed securities depends primarily on the cash flows generated by the assets in the underlying pool and other rights designed to assure timely payment, such as liquidity facilities, guarantees, or other features generally known as credit enhancements.<sup>198</sup>

Most securitized assets are largely homogenous, highly liquid assets that can be easily traded and purchased in open markets, such as mortgages, credit card receivables, auto loans, and other financial instruments. Asset-backed securitization (ABS) has been growing rapidly, from \$500 billion in 2000 to \$3 trillion in 2006 and is well established in global markets.<sup>199</sup>

Arguably, securitization could seemingly grab any firm asset, including assets beyond the bounds of the balance sheet, and make a market for them. If an asset can generate cash streams, its value can be ascertained and leveraged to draw potential interest from the capital markets. Note that intellectual property is but one of numerous types of assets that are subject to securitization, including both traditional and esoteric asset classes.<sup>200</sup> These include assets such as equipment leases, sports franchise fees, and property tax liens. While the idea of intangibles as an asset class may seem revolutionary, the understanding of their respective securities need not be. Securitization of intangibles is simply an extension of these existing practices that started with mortgage-backed securities and are being refined with these other esoteric asset classes.

The promise of future revenues has long been used to raise funds for intangible activities. For example, Broadway shows are funded through the sale of shares. Seed money invested in an artist—or more acutely, the artistic talent of an individual—for instance, could eventually lead to a stream of royalties on the art that the person creates. Artist Sharon Loudon and her commodities-trader husband have taken just that route. They solicited investors to buy shares in a sculpture in process for an exhibition at the Kemper Museum of Contemporary Art in Kansas City, Mo. The piece was later sold for enough of a profit to provide the investors with a satisfactory return.<sup>201</sup> While Loudon was already recognized as an artist, an unknown artist whose work is endorsed by an established artist is arguably an untapped reserve of future revenues. Thus, talent, an elusive intangible, becomes a marketable asset for capital generation.

One of the first intangible asset securitization deals occurred in 1997 when the Pullman Group's Jones/Tintoretto (a.k.a. "Bowie Bonds") deal securitized offerings based on the record master and music-publishing royalties of rock star David Bowie.<sup>202</sup> One of the first deals using patents was in 2000 when Royalty Pharma securitized the Yale University patent to the drug Zerit.<sup>203</sup>

In 2005, IP Innovations estimated that there are about \$1 billion in IP-backed deals each year.<sup>204</sup> Intangible-based securities aren't even a blip in the overall ABS market, with

almost \$3.6 trillion outstanding.<sup>205</sup> However, interest in the securitization of intangible assets appears to be growing. According to Jay Eisbruck:

In recent years the securitization of various types of intellectual property has evolved from a small niche market utilized by individual artists or thinly capitalized companies to a broader corporate financing tool used to facilitate mergers and acquisitions, stock buy-backs, and risk transference to investors.<sup>206</sup>

Music catalogs provided the early movement, with a flurry of deals following the Bowie Bonds model.<sup>207</sup> However, the music industry activity has slowed.<sup>208</sup> More recently, the expected securitization of music publisher EMI's music catalog has apparently fallen victim to the current credit crunch.<sup>209</sup>

While securitization of music has not grown rapidly, the technique has been adopted by the movie industry.<sup>210</sup> It is expected that securitization of film rights will continue to grow.<sup>211</sup> More recently, Morgan Stanley set up a new private fund to sell bonds backed by the revenues generated by films released by Paramount Vantage.<sup>212</sup> In 2005, Merrill Lynch recently created a \$465 million revolving credit facility for Marvel Entertainment, insured by Ambac Assurance using the film rights to the comic characters and the movie revenues as collateral.<sup>213</sup> However, such deals are also requiring stricter covenants given previous problems.<sup>214</sup>

The area of franchise fees and trademarks/brand names has also expanded, including brands such as Arby's, Athlete's Foot, and Guess.<sup>215</sup> In these deals, rights to the trademark and franchise fees are transferred to a special purpose entity (SPE), which sells bonds backed by the royalty stream (see Appendix B). Royalties flow directly to the SPE with the parent company receiving a management fee for administration and marketing. Such deals are sometimes referred to as Whole Company Securitization because they essentially take a firm's entire cash-flow stream and securitize it.

More recent deals have increased in size. The 2006 Dunkin' Brands securitization of its franchise and trademark royalties raised \$1.7 billion.<sup>216</sup> That same year, KCD IP (which owns the Kenmore, Craftsman, and DieHard intellectual property for Sears) structured a \$1.8 billion securitization deal with a twist on the model where there was no outside royalty stream and no outside capital.<sup>217</sup> In March 2007, Moody's issued a rating for a bond offering of almost \$1.8 billion by Domino's, backed primarily by the pizza maker's intellectual property and franchise agreements.<sup>218</sup>

Patents have long been seen as a promising area for securitization but one that has yet to live up to that promise.<sup>219</sup> The most cited examples have involved pharmaceuticals and the early attempts have been mixed. In 2000, BioPharma Royalty Trust securitized the patent for the HIV drug Zerit, developed at Yale University. Standard & Poor's rated the bond issue of \$115 million single A. But lower-than-projected sales resulted in violations of the deal's financial covenants for three consecutive reporting periods and, in November 2002, the deal entered into the phase of what in financial-speak is called "early amortization."<sup>220</sup>

That experience led Royalty Pharma to become more of a whole enterprise securitization form of transaction in July 2003.<sup>221</sup> The \$225 million deal was backed by a portfolio of 13 patents, structured by Credit Suisse First Boston and insured by MBIA Insurance Group. Moody's and Standard & Poor's gave the deal an AAA rating. Royalty Pharma has since expanded this original debt facility through additional securitization and refinancing, using those funds to acquire rights to additional pharmaceuticals.<sup>222</sup>

Using intellectual property as an alternative to existing funding mechanisms in pharmaceuticals has drawn a good deal of attention.<sup>223</sup> But pharmaceuticals may be a special case. Because of the need for Food and Drug Administration (FDA) approval, these products may have a more secure position once they make it through all the regulatory hurdles. As Eisbruck notes:

Compared to other technology patents, pharmaceutical royalties are better suited to securitization due to the high barriers to entry in pharmaceuticals—largely due to the long development and regulatory approval processes for drugs. This generally makes the risk of obsolescence lower than for other types of technology patent, reducing the potential variability of future royalty payments.<sup>224</sup>

However, Dorris and Wilkes note that pharmaceuticals face a special set of challenges. The need for FDA approval can be a two-edged sword, raising the risk of failure before the product even hits the market place. Other challenges include National Institutes of Health (NIH) patent reach-in provisions and special patent-waiver provisions in cases of HIV/AIDS drugs for use in third-world countries.<sup>225</sup> The difficulties—especially in the concentration of risk involved and the need for a large pool of patents—are such that Eisbruck expects only modest growth in this area.<sup>226</sup>

Another version is the Patent Investment Entity (PIE<sup>®</sup>) structure used by TEQ Innovations. A combination of a real estate investment trust and equipment-leasing model, it raises funds from investors and lenders to acquire patents, which it then licenses back to the original owner. This allows companies to monetize current core patents as well as create a vehicle for holding and leasing non-core patents.<sup>227</sup>

In all the above cases, the predictable revenue streams from the licenses supported the securities. This cash-flow securitization uses the expected returns generated by the asset to determine the return of its associated security. Historical returns from the asset provide a discounted cash-flow method of valuation that can quite easily formulate expected returns on assets such as patents, copyrights, and royalties. Contractual agreements on intangible assets, like franchise agreements or trademark licenses, also make return calculations relatively simple. A firm could also estimate the expected returns from comparable asset categories to project expected returns on assets without having access to useful historical data due to the newness of the asset or after significant structural changes to it.

This method of securitization promises to offer attractive options for companies sitting on other forms of intangible assets as well. Contractual agreements may also provide the creative means to securitize intangible assets for an enterprise. Since many service-based

industries, such as high tech or health care, find the preponderance of their value in intangible assets resting in contractual relationships and know-how, these industries could find the greatest benefit from securitization. For instance, let's say a computer-consulting firm contracts its services to a manufacturing firm for a fixed monthly payment for the next 12 months. The contract provides a fixed income stream as well as a good approximation on risk for the returns. In effect, the firm has captured an intangible asset, its technological know-how, and created a fixed income stream that could be bundled with all its other consulting contracts to support a cash-flow securitization.

Furthermore, other forms of intangibles that are based on market valuations might also be used in securitization. Here assets whose value can be independently appraised by a universally acceptable method, such as mining rights, are used as collateral to support the security. Asset value is found by either determining a value based on a known value of a comparable asset or through historical expectations of assets with like characteristics or it is determined by estimating the replacement value of the asset or cost to obtain it. With a little creative thought, this securitization category can encompass a significant array of intangible assets. Mining rights, leasehold interests, noncompete covenants, or developmental rights all serve as assets with comparable counterparts.

Such activities may increase now that hedge funds and private equity funds are beginning to see the value of IP portfolios and securitization.<sup>228</sup> The Dunkin' Brands securitization was used to raise funds to support the leveraged buyout.<sup>229</sup> Once EMI started discussing the potential for securitizing its music catalog, it became the target of rumors of a private equity takeover.<sup>230</sup> The eventual buyer, Terra Firma Capital Partners Ltd., has a history of using asset-backed securitization for acquisitions and had apparently planned to securitize the catalog. However, recent problems in the credit markets have reportedly put that plan on hold.<sup>231</sup>

The problems of EMI and Terra Firma are emblematic of how the recent troubles in the subprime mortgage market may cause investors to shy away from the entire sector of asset-backed securitization. Guha and Callan note that investors "have lost confidence in their ability to value complex structured credit products that include some exposure to subprime [that is] bundled up with exposure to other underlying assets."<sup>232</sup> Intangible asset-backed securitization may be too esoteric for the market to swallow in its present state. In addition, the tightening of credit standards in the mortgage area also may make intangible deals too expensive for borrowers by either giving such deals a lower bond rating and thereby increasing the interest rate demanded by the market or by requiring greater levels of insurance.

As it becomes clearer just how much these instruments have disrupted the credit markets, investors are left wondering why the risks of these securities were so misunderstood. Quite clearly, the assets that made up these securities—loans to risky borrowers—were not as strong an asset as investors, financiers, and the ratings agencies originally surmised. In the process of markets pulling back from the enormous amount of loan defaults and the consequential diminishment of securities value, the near-term promise of intangible asset securities will likely be greatly hampered. Since these assets have a

tendency to be difficult to value and risk-assess, they will be held to even greater scrutiny by potential investors.

Nonetheless, it is still too early to accurately predict the long-term ramifications of recent events. Markets have traditionally been both resilient and elastic as they continually seek out innovative means to move capital and deliver returns. From calamity may spring opportunity. Intangible-backed deals tend to be overcollateralized with extensive credit enhancement (insurance and performance covenants) structures. Such enhancements may make these deals attractive to investors still smarting from the covenant-‘lite’ deals backed by no-document loans. Performance problems of the kind we have seen in the subprime market have not, to date, been repeated with respect the intangible asset-backed deals. Intangible assets could prove to be palatable to investors looking for instruments built on varying asset classes to better balance their respective systematic risk tolerances.

### **Ratings Agencies and Credit Enhancement**

The ratings aspect of the securitization process requires special mention. Like for any other security, an independent analysis is performed by a ratings agency to assure the issuer’s capacity to fulfill its debt obligations. This analysis takes an intimate, confidential look at the financial condition of the issuer to determine the credit risk assumed by the investor who purchases the debt issued by the entity. Institutional investors often require a rating, usually performed by one of the three major ratings agencies—Standard and Poor’s, Moody’s, and Fitch—to comply with legal or self-imposed guidelines on investment quality.

The role of intangible assets in the ratings process may be hard to quantify. Rating agencies have to take into account a number of qualitative factors, such as the ability of the artist to continue to promote his or her music.<sup>233</sup> The ratings agencies seem to recognize value, but in a nonspecific way, as Adele Del Bello notes:<sup>234</sup>

Despite the frequent reference to specific intangibles in their ratings manuals—it appears that there is no algorithm or procedure to track down in a systematic and formalized way the role of intangibles in the evaluation process. Nevertheless, the presence of these assets—and in particular human capital—seems often to be related with the granting of high levels. The credibility of management—that is, its ability to realize its ambitions and plans—is crucial to the ratings process. It also emerged that intangible assets can have a weight on the final credit rating of up to 20-35% according to different industries.

As is the case with collateralization mentioned earlier, securitization packages are often structured to provide a credit enhancement to reduce the unknown risk. Even in the Bowie Bonds deal, there was a form of credit enhancement because EMI (Bowie’s distributor) provided “guaranteed payments and other structural enhancements.”<sup>235</sup>

The structure of the enhancement can take many different forms. A common structure is bond insurance from a so-called monoline insurer.<sup>236</sup> The bonds issued in the Domino’s

securitization were insured by MBIA Insurance Corporation and Ambac Assurance Company, two of the most well-known monoline insurers.<sup>237</sup>

But, as the S&P framework for evaluating a securitization deal highlights, there are multiple means of creating a structural enhancement, such as liquidity reserves and triggering events.<sup>238</sup> The Dunkin' Brands' deal contained a set of performance measures, a "cash trap" (a reserve account mechanism), and an insurance policy.<sup>239</sup>

This credit enhancement can be the make-or-break factor in an issuance because it determines the final cost of capital. The bond house PIMCO explains it this way:

Typically, the originator aims to obtain a credit rating on the ABS that is higher than its own rating and will work with the rating agencies and investment banks to provide enough credit enhancements to achieve that goal. A higher credit rating can lower the yield on an ABS and thus lower the originator's cost of issuing the bonds.<sup>240</sup>

## Venture Capital

Arguably, no market entity has played a more vital role in financially supporting business innovation than venture capitalists (VCs). These investors have served to bridge the capital gap between financial markets often hungry only for large proven winners or established enterprises and entrepreneurs who are restrained by their own limited capital resources and unproven track record. Venture capital was always about intangibles. The venture capitalist generally infuses both financial support and managerial expertise into businesses that have more potential than physical assets. In other words, they invest in intangible assets such as ideas or innovations to capture future profits from an enterprise value enhancement. But, like the cliché states, VCs usually invest in people not ideas. Smart, entrepreneurial people will make things happen, even if the original ideas don't pan out. Invention, human talent, technological advancement, and proprietary advantage combine to describe the promise that venture capitalists perceive when they place their money into these enterprises.

Venture capitalists rely on their own unique valuation assessments to determine the worth and risk of an investment. They are not as limited as loan, equity, and security markets that must often define a market-prevalent perception of asset value to maintain investment liquidity. The valuation schema employed by VCs often varies depending on the background and preferences of the financier. Most will use cash-flow models and projections to ascertain valuations, but the flexibility of the capital resource allows venture capitalists to use internal metrics to also capture perceived values within the enterprise as a whole. If they feel comfortable with the viability of the enterprise in its entirety, they will often subscribe higher valuation assessments on intangibles without identifiable cash flows or market comparables. For instance, if a VC feels strongly that innovative genetic research on prostate cancer cells looks promising for long-term profits, he/she may be willing to invest in a relatively new start-up enterprise in that field that heretofore may not have delivered profits or displayed distinct proprietary assets.

The VC may feel strongly enough about the management team and the talent of the research team to invest in the intangible assets contained within the enterprise.

Venture capitalists take advantage of the long-term benefits of leveraging the often-intangible attributes of an operation to deliver impressive future returns on their investment. They often incubate an enterprise's potential until it delivers the consistent cash flows necessary for recognition by other capital markets. Consequently, venture capitalists provide a vital resource for monetizing enterprise-specific intangible assets by incorporating their value into an assessment of the overall potential of the enterprise.

### **Interplay of Mechanisms**

The financial means of raising capital must be aligned with investors willing to buy it. Thus, numerous complimentary mechanisms must exist. The various options outlined above, therefore, should not be viewed as either/or alternatives. Nor are they completely separate activities; they are highly interrelated. For example, securitization benefits greatly from a primary market in the asset. In fact, one credit enhancement technique is a sales trigger, which requires the trustee (holder of the asset) to sell the asset if the revenue stream drops below a certain point. As Eisbruck explains:

If structured properly, such a trigger can be hit before the value of the assets—which is closely related to the revenue they generate—falls below the remaining bond balance. At that point, the assets would be sold, and bondholders can be paid off, albeit earlier than expected, without suffering a loss.<sup>241</sup>

Such a mechanism only works if there is a market in the underlying asset. In the case of music portfolios, there is an active market—which helped make the Bowie Bonds a viable financial product.

What is clear is that further monetization of intangible assets will require attention to all of these mechanisms. The new Intellectual Property Exchange in Chicago, mentioned earlier in this paper, may be one way to link these activities.<sup>242</sup>

## **Financial Considerations**

A number of factors must be considered by the financial markets to determine the suitability of an asset, including asset recognition, valuation, separability, transferability, duration, and risk. Likewise, the nature of the financial marketplace itself needs to be taken into account. Issues such as the liquidity of a specific market and the relative cost of capital are critical in the monetization process.

These considerations vary across the different mechanisms for the monetization of intangibles assets. For example, the sale of a specific patent substantially differs in the marketplace from the securitization of a patent portfolio. Commonalities among the types of intangible assets exist, as do commonalities across the monetization mechanisms. But specific differences can determine what is monetized and how.

It is not surprising that various mechanisms for the monetization of intangible assets have been slow in developing. Securitization is an offshoot of collateralization; collateralization often requires the backstop of a working primary market in the asset. Markets for the sale and lease of intangibles have existed for some time but the regularization of these markets is only a recent development that continues to evolve.

## ***Classification and Valuation***

As described earlier, the FASB lists 29 types of intangibles; the earlier AICPA list had more than 90 separate intangible asset classifications. Such an expansive list illustrates the extraordinary range of this asset class. One needs a certain level of imagination or an intimate degree of insight to distinguish all the intangibles in any given firm. These assets provide substantial existing and potential future value for enterprises, many of which have never formally detailed their own intangible asset holdings.

To effectively monetize intangible assets, one needs to transform their characteristics into quantifiable metrics. Financial markets need to understand the characteristics of intangible assets so they can calculate their behavior over time. The markets often need to replicate the past performance of the asset in question or else compare it with another like asset or set of assets that acts in predictive ways. While many complex models serve to support analysis (and ultimately valuation estimates) in the market today, no one model accurately measures intangibles.

The great variety in types of intangibles complicates the process. Even within a rather well understood subcategory, such as intellectual property, there are important differences. Philip Walsh states that this comes down to the—

lack of homogeneity between different types of intellectual property, as well as the wide variety of legal regimes that cover such property. For example, computer software is relatively easy to patent in the United States, while in Europe there are clear distinctions between programs that represent a technological innovation (e.g., a new machine tool—generally patentable) and those that are non-

technological (e.g., a program that translates from English to German—non-patentable).<sup>243</sup>

This issue will become less of a problem as globalization forces nations to harmonize their economic standards, such as patent laws. The difference among the various types of intangibles—patents versus brands for instance—may still require slightly different mechanisms for valuation. Of course, this is not unique to intangibles but is an issue already faced daily by analysts dealing with the plethora of asset classes.

## **Asset Recognition**

The first accounting problem with intangible assets is their definition and recognition.<sup>244</sup> Some assets, such as formalized intellectual property, are relatively easy to define. Others, such as tacit knowledge, are all but invisible. Cataloging and recognition (in the normal sense of the word) are major hurdles.

Recognition usually refers to the technical accounting term of whether the asset is included in firms' financial statements. As discussed earlier, only those intangibles acquired from outside the firm must be accounted for separately from goodwill under SFAS 141 and 142; Regulation G restricts the use of non-GAAP financial measures for accounting purposes. Revenues from intangibles (licensing or sale) are to be incorporated into the financial accounts, but not the value of the asset unless it is acquired from outside (and only then is it subject to specific rules).

As mentioned earlier, new rules do allow for detailed discussions of intangible assets, as long as they are not included as depreciable assets in the financial statements. Under these new rules, the SEC encourages companies to include a wide range of measures that are believed to be “material” to the companies' performance in the management discussion and analysis (MD&A) section of the financial statements.<sup>245</sup>

These new disclosures do not allow companies to actually book intangible assets. Nor is there any standardized format for disclosure. As a consequence, intangible asset recognition on the balance sheet is only broadly addressed, with little insight on value.

However, more and more companies are looking to their intangibles assets as a source of value creation, even if they are not officially recognized in the financial statements. As mentioned earlier, the Sarbanes–Oxley Act is forcing some companies to review their systems of control with respect to intangible assets. The creation of explicit procedures for understanding intangibles will help companies better realize the potential of those assets—regardless of whether they are recognized in the formal accounting sense.

Such explicit procedures may also come about due to outside pressure. As Malackowski notes:

There have been more than two dozen IP class-action shareholder litigations, and they have involved failed process and control matters, such as missing a patent maintenance payment, overstating the value of a patent portfolio in an IP or

secondary offering, or generally mismanaging or under-managing the IP. One can imagine the discomfort of the CEO or the independent director [who is] sitting on a volatile pool of assets that can evaporate. The assets are not insured, and if they evaporate for reasons that were arguably lack of proper management, the CEO could be sued and held personally liable.<sup>246</sup>

However, such a defensive litigation approach, rather than a proactive management approach, would greatly increase the costs and uncertainties.

## **Separability**

For an asset to be recognized under accounting rules, it must be able to be separated from other assets. Breaking up intangibles into discrete, separable entities is difficult. Often concomitant forms of knowledge are necessary, including tacit know-how and other associated intangibles. Anson points out that for valuation purposes it is important to look at the bundling of intangibles, not just the individual asset.<sup>247</sup> Kossovsky likens intangibles to the stones of a Roman arch where the loss of any one stone could cause catastrophic collapse.<sup>248</sup>

Certain types of intangible assets are easier to separate than others. Those that can be formalized, such as patents and copyrights, can generally be separated. But even in the case of the most straightforward form of monetization—licensing—a side agreement on the transfer of know-how is sometimes needed. Likewise, in the securitization of brands and trademarks, the management and servicing agreement is a key feature, even with a steady royalty stream to underpin the value.

## **Transferability**

Transferability is closely tied to the issue of separability. A major question defining an asset is whether it can be transferred to other parties without losing value. For intangible assets, the answer is “yes” only in some cases, as with intellectual property transfers. However, many assets are purely firm-specific and contain little if any value outside of the enterprise that they belong to. As Anson remarks:

Enterprise-value also rests in proprietary methodologies, best practices, application-specific software, operating systems, enterprise information infrastructures, and the tools that operate and manage the information needs.<sup>249</sup>

Even if these assets could be separated, it would be difficult to transfer them in all but the most specific circumstances.

In some cases, the asset defines the enterprise, such as the formula for the lubricant WD-40. Monetization of this asset is almost by definition the monetization of the entire enterprise.

Still, one must be careful not to dismiss intangible assets that do not on the surface seem transferable. Merger and acquisition activity is justified on the need to gain control over

target companies' tangible and intangible assets. While corporate know-how may be virtually impossible to transfer from the collective minds of the company employees, those same employees can choose to leave the company and reestablish a new enterprise elsewhere, taking extraordinary value along with them.

Companies can protect intangible assets through trade secrets and noncompete agreements. These intangible assets can prevent the loss of intellectual capital and reduce the risk of proprietary investments taking on a formidable life of their own outside the enterprise. Maybe the greatest value is the elimination of a potential market competitor or the eradication of temptation for workers to leave the organization—factors of significant financial consequence. But this creates yet another form of intangible asset that is hard to monetize outside of the company because of the narrow enterprise-specific nature of the intangible. A noncompete agreement may be a highly important portion of a company's operating strategy and therefore of its overall value. But generally that agreement would be worthless on the open market as a separate asset. It only has value in the context of the operations of the enterprise as a whole.

## **Duration**

The duration of the intangibles' effectiveness is another matter. Different intangibles will have significantly different lifecycles. Technological advantages in the market can be overcome by competitors with seemingly lightning speed. Yet many patents can deliver years of returns. What about the lasting value of reliability or reputation? Arguably these terms are worthless without future protection from absolute upheaval and severe value diminishment. Key employees can leave, critical customer relationships can fall apart, or brand value can be eclipsed by better product introductions or systematic consumer preference changes.

Each form of monetization must deal with the issue of duration in its own way. Licensing agreements must take into account the length of any intellectual property protection, which is different for patents, copyrights, and trademarks. In the case of licensing a trade secret, care must be given to protect the secret as well as deal with the loss of trade secret status during the license period.<sup>250</sup> Likewise, the sale of an IP asset is based on its duration. Collateralization and securitization are based as much on the duration of the financial instruments that define the structure of the deal than on the duration of the assets.

## **Risk Analysis**

Business is about calculated gambles. Making profit often means leveraging capital against unexpected, but statistically predictive, future outcomes. Yet predictability is tough to achieve in the global economy. Risks both within a company and those on a systematic, marketwide scale are more numerous and unique than ever. Companies are taking greater steps to manage the risks associated with intangibles assets and consulting firms, such as Marsh, are offering more risk-management services.<sup>251</sup>

However, enhanced risk in business and investment often means enhanced rewards; the more uncertain the expected outcome or the greater the variability of possible outcome of events, the greater the expected payoff for the investor. This risk/reward calculation drives the financial system.

There are different types of risks—most notably business or operational risk and market risk. Operational risk comes from problems or failures in the business operations. Market risk involves changes in the valuation of an asset due to changes in the financial markets. Related to these two types of risk is event risk, where unforeseen events can trigger changes in business operations or market valuations. In the case of licensing and sale of an intangible asset, the risk is all business and event risk. The asset may not perform as expected, the business strategy utilizing the asset might be wrong or outdated, the business conditions might change, or the implementation of the strategy might be flawed. With collateralization and securitization, the element of market risk enters the picture. All of the operational risks continue, but the factor of the market circumstances adds an additional dimension.

Determining risks poses a significant issue for monetization. Understanding operational risks of intangible assets is relatively straightforward, if sometimes flawed, as demonstrated by the failure of many mergers and acquisitions. Understanding the market risk (and reward) of intangibles is much more difficult because many of these assets behave in very unique ways.

Since we are just beginning to understand the market behaviors of intangible assets, they pose inherent uncertainties for financiers. The returns to investors depend on accurate estimates of corresponding risk. As risk uncertainty rises, so does the expected return on investment. Securitization often requires a number of credit enhancements to reduce both operational but mostly market uncertainties, as described earlier. These risk mitigations serve to protect the investor and reduce the sellers' capital costs. As we gain more experience in modeling the behavior of these assets, the uncertainties may decrease.

Despite these drawbacks, intangible asset securitization may very well hold the key to a vault of unexplored, exciting, and extremely useful set of financial risk-mitigation instruments. Securitization could serve as a financial risk-mitigation instrument by allowing a company to transfer risks to investors who are more willing or able to bear those risks. For example, by securitizing its patents, a company can essentially pass some of the development and market risk to investors willing to gamble on both the attributes of the company and on the potential future market for the products.

For investors, intangible assets might prove to be a means of diversification by providing investment opportunities that are less correlated to market fluctuations than current investment products. The specific nature of these securities allows investors to hedge distinct risks in their investment portfolios by choosing a securitized asset class that counteracts unfavorable market movements in their holdings. Since they are a separate entity, many assets held in special purpose entities (SPEs) claim protection that is superior to whole business investments like stocks.

Furthermore, since assets can be segregated, investors can combine the risks in a manner that they find most attractive, without regard for the rest of the enterprise and its respective risks and investor concerns. For instance, an investor may feel that a drug company holds patents in cancer research that offer promise above and beyond other product lines. Likewise, investing in a specific set of patents could hedge against operational risk in the form of new disruptive technologies. On the other hand, investing in a portfolio of patents can lower the risk. As Grant points out, bundling of assets would reduce the bankruptcy risk.<sup>252</sup> A carefully constructed patent portfolio might also provide a hedge for issuers of infringement or other insurance protections.

## **Insurance**

Insurance is another long-standing method of handling risk, especially event risk. As mentioned earlier, insurance is often a key component of the credit enhancement portion of a securitization deal. Such insurance packages protect against default and guarantee at least some portion of repayment of the investment.

But insurance is also important for protecting the underlying intangible asset. A number of companies offer various forms of insurance products, such as Intellectual Property Insurance Services, Samian Underwriters, Marsh, and the Kiln Group.<sup>253</sup>

Third-party insurance, in the form of protection against infringement lawsuits, is probably the most commonly thought of insurance product. This insurance can cover both costs of a legal defense against an infringement claim and of any damage award or settlement that might occur. It can also cover the cost of any design-around and even the negative impact on company share price. More common in Europe than in the U.S., such insurance can be a key factor in protecting companies in the current climate of patent litigation.<sup>254</sup>

First-party insurance covers the risks of ownership, such as the costs to correct any errors in the patent or to cover the failure to include all inventors/claimants, and expenses due to any previous encumbrances on a patent. Insurance can also cover the cost of bringing an enforcement action, including the litigation costs.

First-party insurance can be very flexible in the how it protects the underlying intangible asset. For example, insurance can be purchased to backstop “representations and warranties” made about an intangible assets as part of a sales agreement or merger or acquisition, such as Samian’s RepSure™ product.<sup>255</sup> In some case, this type of indemnification can include holding the buyer harmless for any possible infringement liability.

In a form of business disruption or continuity insurance, policies can be written to protect against a key piece of intellectual property being found invalid, covering the loss of value of the asset or loss of revenue from licensing. They can protect against any government actions that could reduce the value of the intellectual property—a very important factor in

the life-sciences industries, which rely on government approvals. A variation of this value insurance protects from loss of revenue due to damage to a company's reputation.<sup>256</sup>

Likewise, variations of contract law insurance can be used to cover issues concerning intellectual property, such as Kiln's Open Source Compliance Insurance to protect against liability from noncompliance with open source licenses.<sup>257</sup> Some IP protection is also available through general business liability insurance, such as Chubb's coverage for information and communications technology companies.<sup>258</sup>

Key to any such insurance, as Hyden and Hogg point out, is the ability to assess the validity and value of those assets as well as the risks.<sup>259</sup> Gauging the true risk level can be difficult, as most patent litigation is settled privately. As we will see, the problem of valuation is not necessarily a straightforward proposition.

## Valuation

All of these factors feed into the ultimate goal of delivering an accurate means of asset valuation. However, financial markets are far from achieving consensus on how to value intangible assets. For example, Wilhelm and Finnegan note the need for an "accurate, standardized method to value intangible assets."<sup>260</sup>

Affixing an accurate value to an intangible asset is essential for it to be used as loan collateral or for securitization. It is also important, but less so, for sale and licensing since the value of the asset may be tied to the specific use by the buyer/licensee. Independent appraisals of value and useful life of assets should support this requirement.

As already noted, bankers will often over-collateralize their loans so that value assessments may be conservatively discounted to cover the needed credit support. Furthermore, many lenders and rating agencies use a Monte Carlo method or other such sophisticated simulation of possible default outcomes to determine their potential default risk exposure. The resulting output of such a simulation may overestimate the true risk exposure of the transaction, which may cause credit enhancement needs to rise. Thus, better valuations will help investors more accurately understand the risk and returns involved with the asset. In turn, firms employing intangible assets as loan collateral will avoid the current situation where value limits can hamper the ability to adequately leverage the assets.

One should recognize that tried-and-true valuation models are likely to be the most persuasive for investors and financiers. There are a number of techniques and methodologies in use for valuing intangible assets at both the micro- and macroeconomic level.<sup>261</sup>

For firm-based analyses, there are three generally accepted methods of valuation: the market approach, the cost approach, and the income approach.<sup>262</sup> The market approach looks for comparable market transactions. The cost approach works on either historical cost (possibly with an appropriate depreciation rate) or current costs to either reproduce

(exactly duplicate) or to replace (create a functional equivalent of) the asset. The income approach looks at what income would be gained from having the assets use a relief from royalty methods, which looks at how much a company would have to pay in royalty and licensing fees to use the IP, or a “Multi Period Excess Earnings Method,” which attempts to separate out the cash flows due to the intangible assets from overall cash flows.

Each method has its limitations. The market approach needs comparable transactions, which can be problematic to come by in thin markets. The cost approach must figure in depreciation/obsolescence and does not always count all intangible inputs, such as managerial efforts and workers’ skills. As Halligan and Weyand explain:

The direct acquisition cost of intellectual property may be insignificant, as when the intellectual property results from a flash of insight. However, that same insight may result from the sudden emergence of an idea after years of study in the field and years of experimentation in the laboratory. Which then is the true cost, the negligible cost of a moment’s insight or the sum total cost of the education and experience of a lifetime? Similarly, replacement cost is problematic. How does one replace a flash of insight?<sup>263</sup>

If there already is a royalty income stream, the income approach can be the most straightforward. However, if one has to impute the income, then this method faces imprecise assumptions about royalty rates and rates of return on various assets.

The licensing and sale of the asset can use any of the three methods. One of the most refined areas is that of patent analysis and valuation. There are a number of patent analytics companies, including OceanTomo, 1790 Analytics, The Patent Board, M-CAM and Patent Café.

But some remain skeptical about this. Sullivan and McLean argue that a single precise valuation of intangibles may be next to impossible because so much of the value is context-specific.<sup>264</sup>

Outside factors may also change the calculation. “The KSR decision alone could dramatically affect patent value across the board,” says Paul, Hastings, Janofsky & Walker IP litigation partner Michael Bednarek, referring to the then-pending U.S. Supreme Court decision on patent obviousness in *KSR International Co. v. Teleflex, Inc.*<sup>265</sup> However, as Crouch points out, the final impact of the KSR case will depend on how the Court of Appeals for the Federal Circuit interprets the case.<sup>266</sup>

Yet valuation companies have been receiving more business from mergers and acquisitions as buyers attempt to determine a reasonable value for a company, including its intangible assets.<sup>267</sup>

In the case of collateralization and securitization, investors are particularly interested in maximizing the likelihood of repayment and minimizing default (e.g., having to take ownership of the underlying asset). Thus, for these purposes, any intangible asset that can use steady and predictable historical cash flows to project future cash-flow streams has a

distinct advantage over other like assets. Capricious cash-flow histories or ones with dubious promise for predictable future returns will find it exceedingly more difficult to find a convincing present value.

That does not mean that other forms of valuation are not used for collateralization. As mentioned earlier, banks lend against only a fraction of the value of an intangible asset and the assets are generally used as a backstop or as secondary collateral to make the deal fly. In these cases, cash flow associated with the specific asset is not the determining factor but the debt-servicing ability of the entire entity.

While marketable assets, including patents, and cash-flow generating intangibles, such as trademarks and licensed technologies, may receive universal valuation acceptance through traditional valuation techniques, intangibles like workforce talents or customer relationships find a myriad of dissident perspectives on their true value. Without distinctive cash flows directly correlated to most intangibles, discounted cash-flow valuation tools will not work. Without obvious comparable assets for most intangibles, comparable analysis also fails to offer insight. Can productivity, for instance, be compared across companies? Perhaps, but too many variables exist between compared entities to be accurate. Inkpen and Madhok argue that the nature of knowledge as contextual and tacit makes valuation especially difficult.<sup>268</sup> Since different parties can often use knowledge in different ways, variations in valuation will result.<sup>269</sup> Furthermore, qualitative value techniques are simply too subjective for financial markets.

This problem of valuation by both management and capital markets as a whole severely undermines attempts to create financial leverage for these assets. However, to ignore these factors is shortsighted for firm viability and long-term sustainability. Just because nonquantifiable metrics are difficult to measure accurately does not mean that they cannot be harnessed for their recognizable contributions. Corporate valuation must focus beyond the balance sheet.

Still, since segregation and correlation of contributed value for each intangible asset proves to be both problematic and pervasive, the well-known disparity between book and market value may be unavoidable and quite possibly be wholly acceptable for the equity markets. It acts as speculative territory for investor opinion denoting both competitive differentiation and opportunistic arbitrage.

### ***Markets and Liquidity***

Certainly, a critical concern for intangible asset monetization is the lack of a pervasive market for these assets, especially for uniquely creative intangible asset classes. Some forms of markets currently exist for certain types of intangible assets. Book and song rights are regularly bought and sold. As mentioned earlier, there are emerging new mechanisms for the sale of patents. However, these are relatively shallow markets, and many intangible assets have no market at all. The scope and reach of these markets are wholly insufficient to support the potential needs of this asset class.

This limitation hampers widespread and real-time acceptance of intangible-leveraged financial products from capital markets and causes the cost of funds to rise on potential offerings. Without the government support—similar to that received by the early secondary mortgage market—the intangible asset securities market will need to engage its market with attractive returns on investment and controlled risk profiles.

Furthermore, market asset value depends on continuously sufficient markets for resale. In the absence of liquidity, assets lose their perceived value to the buyer. As businesses expand and contract to meet market needs and investor expectations, they prefer assets that can be resold if necessary without taking significant discounts to do so. Yet one could argue that an investor able to hold intangible asset-backed paper might be in an ideal position to realize an arbitrage opportunity. Low market prices could reward investors who can wait for an asset to emerge as a cash-flow generator and thus develop into a more marketable asset.

The existence of a guarantee on the primary asset helps not only liquidity but also enables a more acceptable the cost of capital:

The need for credit enhancement further differentiates ABS [asset-backed securities] from MBS [mortgage-backed securities]. Most first mortgages are guaranteed—either explicitly or implicitly—by the U.S. government through the national mortgage agencies, such as Fannie Mae, Ginnie Mae, and Freddie Mac, which buy mortgages from local lenders and securitize them. As a result, MBS backed by the agencies generally do not depend on the same forms of credit enhancement that ABS do.<sup>270</sup>

Hedge funds already have mechanisms for dealing with illiquid assets using “side-pocket” accounts separate from their main accounts. These accounts pay out to shareholders of record when the account was created but not to future shareholders, who also do not incur fees.<sup>271</sup> Hedge funds are now controversial because some say they are used to hide poor performance by essentially taking bad investments off the books.<sup>272</sup>

As a result, regulators are beginning to look more carefully at how to deal with the valuation of these illiquid assets. Intangibles are not the only assets where valuation issues arise. Other illiquid assets, such hold-to-maturity loans, also use a variety of valuation techniques to assess fair value.<sup>273</sup>

The pressure for these fair value assessments is growing. For example, under a new FASB regulation, companies will soon be able to use fair value for assets—consistent with how buyers and sellers would use the market, cost, or income approaches.<sup>274</sup> Banks have already been given official guidance on how to use fair value in accordance with Basel standards.<sup>275</sup> As such valuation techniques are applied routinely to a number of different assets, their acceptance for valuation of intangibles should increase as well.<sup>276</sup>

Moving forward, there will be opportunities to look at new ways of dealing with intangible assets that are not yet liquid (as opposed to assets that have become illiquid because of bad performance).

## **Cost of Capital**

Indeed, the greatest obstacle to intangible asset monetization may be the cost of the capital supporting it, especially for collateralization and securitization. Currently, there is a tradeoff between the complexity and the amount raised. According to Walsh, bank debt and second lien loans are generally in the range of \$2 million to \$50 million while securitization deals have a higher level of complexity but raise between \$20 million and \$1 billion.<sup>277</sup>

Leung and others have argued that the transaction costs of complex securitization deals may simply be too great to produce any offsetting net benefits.<sup>278</sup> Borod and Cassidy add that—

many large pharmaceutical companies have credit ratings sufficient to permit them to borrow on terms as advantageous as they would obtain by securitizing their intellectual property assets. At the other end of the spectrum, smaller companies, although possessing valuable intellectual property, may not have enough assets for a transaction sufficiently large to justify the fixed costs of structuring the transaction and obtaining a rating.<sup>279</sup>

These unique capital structures require higher costs to monetize. Without a standardized model for structuring and valuation, intangible assets are difficult to assess effectively. Consequently, these assets will require higher prices to monetize and greater enhancements to cover the investor risk exposures, either actual or perceived. Since no secondary market exists for many intangible asset offerings, investors are distrustful of their associated unpredictability and lack of overt pricing information and often overprice their capital to support this uncertainty.

The situation may be improving as direct markets for intangible assets, specifically patents, continue to develop. As price information is revealed through an increasing number of public deals, comparables emerge and the uncertainty declines.

However, the current situation is still ambiguous. Due to the lack of clearly defined intangible asset behaviors, loan providers tend to overestimate the risk of default of securities and loans collateralized by intangible assets. To account for this associated risk, bankers offer loans only with high discount rates on the underlying assets and underestimate the potential cash flows generated by them. The cost of capital rises and the ability to leverage intangibles diminishes, reducing the opportunities to obtain capital to finance new investments. In the long run, this distortion in the capital markets slows economic growth and erodes investor confidence in the new market economy.

As a result, the cost of capital to monetize intangible assets may make their use prohibitive. Any cheaper capital resource will be more attractive to the firm. Potential projects may not meet their hurdle rate when the costs associated with funding them are too high to go forward. Firms that do choose to monetize may draw enhanced scrutiny from market analysts and bankers who question the use of such highly priced capital, putting the firm's overall risk profile under pressure.

Pressure may also come from market reactions (or overreaction) to the securitization process as a whole. The recent concerns over subprime mortgages and collateralized loan obligations (CLOs) may cause the market to require higher returns for these securitized instruments than in the past.<sup>280</sup>

However, as Rosenberg and Rozier-Boyd note:

Securitization is an outstanding alternative for companies with weaker credit ratings or fewer assets for collateral as bank loans. It also enables the owner of IP assets of any type to monetize these assets and shift the risk associated therewith.<sup>281</sup>

On the other hand, if assets are available for collateralization, Bergelt and Meintzer argue that this may be a better option for small and medium-sized companies, due to the complexities of securitization.<sup>282</sup>

Intangible asset securitization is far from a financial market commodity. Borod and Cassidy lay out some of the problems with securitization:

One factor is the relative complexity of such assets as compared to receivables assets and other financial assets. Another factor is the lack of awareness of some of the holders of these assets of the benefits of securitization. A third factor is that the holders of large pools of these assets have access to alternative sources of financing, which are more favorable than or as favorable as securitization. A fourth factor is the disappointing results of some early copyright, patent, and trademark royalty transactions, which have been well publicised.<sup>283</sup>

The uniqueness of the asset classes and the structural complexity contained in the deals work to undermine their usefulness to many firms. As Borod and Cassidy again point out:

The uniqueness of IP assets is largely attributable to two factors. First, the assets are quite literally unique or *sui generis*, lacking the relative uniformity of transaction terms and documentation that has been developed in the mortgage and consumer finance industries. Each license of patent technology or a copyright or other IP asset is in effect a one-off transaction between the licensor and licensee. Second, licenses of intellectual property assets and the related royalty cash flows are analysed as future flow transactions, or transactions in which the royalties or other payment obligations are, unlike the fixed nature of the payment obligations under mortgages or consumer receivables, contingent upon sales of the related product or other measures of the commercialisation of the IP assets.<sup>284</sup>

The hope has been that as there are more deals, securitization of intangibles will become more standardized.<sup>285</sup> But currently any company with the ability to raise capital from more recognizable resources will likely do so.

There is also the decision of whether to tap the capital markets in the first place. While licensing and sale of intangible assets have their own difficulties, they are much more straightforward. Collateralization and securitization may be able to raise only a portion of

the value of the asset. In an era of high liquidity and, until very recently, the low cost of capital, collateralization and securitization may be the best options. However, in a time of high cost of capital and low liquidity, licensing and direct sale of intangible assets may prove to be a preferred alternative.

## **Obstacles and Policy Proposals**

If our goal is the creation of an open, transparent, fair, and efficient capital market for intangible assets, an active role by government and independent regulatory bodies is required. A symposium in October 2006 convened by the Intangible Asset Finance Society identified risk management as the key to further growth of intangibles as an asset class.<sup>286</sup> The society's proposals included the need for international standards/best practices for intellectual asset management and a consistent valuation metric. Furthermore, they noted that until these assets can be pooled to better diversify the risk, investors will be reluctant to embrace this investment.

Workable capital markets are fueled by consistent, accurate, and useable information necessary for practical insight into corporate operations and valuation as a whole. However, investors and creditors are increasingly forced to make decisions in the dark as intangibles play an ever more important role in American businesses while the means of understanding the nature and behavior of these assets fail to keep pace. The risk of not having an accurate insight of intangible holdings makes for hesitant financial activity and limits the availability of capital necessary for American enterprises to innovate, grow, and sustain themselves.

Actions are needed to structure the market and provide the appropriate regulatory and operational infrastructure. Other steps may also be needed to provide incentives, or at the very least, to remove disincentives and to increase participation in that market.

This section reformulates the points raised in the previous sections into three sets of obstacles to monetization of intangibles. We then propose a basket of policy ideas to improve or correct these impediments. As we will see, the obstacles—and the specific policy steps to resolve them—are highly related. More than one policy solution may be needed to address any one particular barrier. In addition, these obstacles and policies are both distinct and overlapping when it comes to the two levels of monetization: creation of direct revenues through sale or licensing of intangible assets and the use of intangibles as assets for collateralization or securitization.

### ***Obstacles***

According to Roth, markets need to overcome the following three operational failures:

1. Failure to provide *thickness*; that is, to bring together enough buyers and sellers (or firms and workers, schools and students, and so forth) to transact with each other.
2. Failure to overcome the *congestion* that thickness can bring, that is, that can result when lots of buyers and sellers are trying to transact. That is, failure to provide enough time, or failure to make transactions fast enough so that market participants can consider enough alternative possible transactions to arrive at satisfactory ones.
3. Failure to make it *safe* for market participants to reliably reveal or otherwise act on their information.<sup>287</sup>

In terms of creating an intangibles market, safety and congestion issues can be seen as stemming from the lack of information and problems in market structures. The issue of thickness involves the problem of the supply of intangibles to the market. This section will look at the issues of these three areas: inadequate information, imperfect market structures (and its numerous subcomponents), and insufficient supply.

### **Inadequate Information: reporting, measurement, and valuation**

Perhaps the greatest obstacle for intangibles centers on the absolute vagueness associated with identifying, measuring, and quantifying these assets. Existing reporting requirements have a blind spot when it comes to showing the actual value of firms because intangibles have not been sufficiently or accurately integrated into financial reports and accounting regulations.<sup>288</sup> Only intangible assets acquired externally appear on balance sheets. Most are completely invisible, making their true value unidentifiable outside of the organization itself. Financial statement footnotes are oblique, subjective, and wholly incomplete for an accurate assessment of intangible asset worth. Bruce H. Nearon, writing in *The CPA Journal*, notes that “with few exceptions, we account for intangible assets in the same manner as we did 30 years ago.”<sup>289</sup> The result is both equity and debt markets operating with only limited information on companies’ most important assets.

As noted earlier in this paper, intangibles are difficult to segregate, correlate, and compare. Their valuation, when attempted, can often be subjective, erroneous, and/or incomplete. Furthermore, very little research material exists from either public or private studies that clearly defines the asset class. Most financial professionals have only a passing knowledge of the topic.

As a result, according to Henning:

Most companies do not gather information about the IP internally that would lend itself to the external disclosure to the investment community. Neither do they have IP-related information available. And still more: they do not have the measures and metrics that might provide some clue to management or outsiders as to the value that they possess.<sup>290</sup>

Even with a better understanding, the lack of market information necessarily leads to using models to create approximations on both price and risks. The recent problems in the subprime mortgage market demonstrate that complex financial models do not always correctly capture risk. Nor are they necessarily good substitutes for actual market pricing.

Because currently practiced valuation metrics on these assets can be subjective and organization-specific, no clear industry-wide comparable measure standard is available. As previously noted, direct revenue-generating intangibles can be slotted into traditional valuation models, but most intangibles fail to provide obvious correlations to revenues despite overt contributions to bottom-line success. To complicate matters even more, usable valuation models can find severe discrepancies in risk assessment. Discount rates and terminal valuation determinations for intangibles tend to be altered to capture the perceived risk of the assets—risk resulting from a misunderstanding of the assets.

Consequently, capital markets tend to look at intangibles with hesitancy, unsure of how to assess their behavior, worth, and contribution.

### **Imperfect Market Structure**

Financial and credit markets depend on distinct ownership, transfer rules, and legal definitions to give the creditor the ability to liquidate the asset if necessary to recoup a loan or investment supported by the asset. Some intangibles, as noted earlier, cannot be transferred due to their oblique characteristics. Others, especially IP assets, can serve as excellent resources for collateral on loans, securities, and other capital allocations. However, the usefulness of these assets could be undermined by weak asset ownership enforcement from regulatory bodies, cloudy ownership boundaries, ease of proprietary infringement, and inadequate transference protection.

### **Perfection and Priority Claims**

For a market to work, especially a credit market, it is vital that both ownership and financial claims on that ownership be known. As noted earlier, intangible assets, specifically intellectual property—with patents as the case in point—suffer from a confusing system of perfection. Legal claims are currently covered by state, not federal, laws, causing geographic variability in court decisions that could be problematic for securitization.

Ownership rights' perfection requires filing a UCC–1 financing statement with a state office. In the case of intangibles, even determining the correct filing jurisdiction can be problematic. No central registry of claims exists, which is contrary to best practices. As the OECD framework for investment outlines:

A good legal framework should support the use of all kinds of assets and rights as collateral, while as far as possible eliminating formal requirements to create collateral and should foster transparency and predictability for commercial transactions. The legal framework should also be supported by publicly open, affordable and efficient registry systems. Well functioning registry systems are critical tools in the development of financial intermediation and help to boost investment activity.<sup>291</sup>

In addition, the process of securitization accentuates the problem. Securitization's use of SPEs allows entities to segregate certain assets from all other operations by transferring ownership rights of these assets to an independent third party. This results in distinct ownership separation that shields the assets from the creditor or legal claims of the enterprise as a whole. As such, it can create one more layer of separation between the asset and those with a financial claim. This can be a negative as well as a positive feature. Even in real estate, banks that own pools of mortgage-backed securities can have trouble proving ownership to start foreclosure proceedings.<sup>292</sup>

While the SPE is a common vehicle for various transactions, its association with unscrupulous financial maneuverings in organizations like Enron has tainted the concept.

The problem may be more of perception than reality. Various regulatory actions have been taken to prevent future abuse.<sup>293</sup> However, both lingering and new concerns may open the door for possible legislative and legal movements that may erode the absolute separation of ownership claims in the asset transfer to the SPE. The use of SPEs by banks and hedge funds as conduit structures is under increased scrutiny as a result of the recent problems in the subprime mortgage market.<sup>294</sup> These questions focus on whether such off-balance-sheet funding structures hide credit system strains.

Since these transfers are generally off balance sheets, their use is being scrutinized by skeptical overseers who have already shown a proclivity to erode the priority claims. Without an impregnable ownership claim, the assets supporting the security could be pulled away from creditors who are secured by the asset. Without the absolute certainty in priority ownership claims, the risk, and thus the pricing of the security, rises substantially. Many securitizations might simply not be practical or at the very least financially palatable as a result.

### **Ownership and Risk**

Currently, the most easily identifiable and monetized intangible assets are patents. The patent system, however, appears to be beset by what some consider an ineffectual scheme. Critics claim that the U.S. PTO is overburdened, slow, mistake-prone, and incapable of proper identification of duplicitous claims. As proprietary claims come into question, so does the implicit value of the asset itself. A claim without legal protection and clear ownership boundaries makes for poor financial collateral. A study by IP consultants M-CAM cites that more than 30 percent of issued patents have duplicate claims on them.<sup>295</sup>

Such duplicative patents, along with overly broad claims, lead to costly legal battles and increased uncertainty.<sup>296</sup> The costs of fighting infringement can easily outweigh the value of the proprietary advantage. Many IP assets must be valued with an extra discount factor that takes into account the costs of litigation. As Hall notes:

The issue of a large number of low-quality patents will increase uncertainty among investors concerning the level of protection enjoyed by these related inventions, which in turn will make it more costly and difficult for investors to build on these related inventions in their own technological advances.<sup>297</sup>

The issue with copyrights is somewhat different. There is usually no question of ownership, although the owner may be sometimes difficult to locate, especially in cases involving derivative works. Because of the wide scope of copyright protection, follow-on works or works that use a portion of a copyrighted work must seek clearance—or run the risk of an infringement action. The problem is complicated by so-called orphan copyrights mentioned earlier, when the owner may be difficult or impossible to locate but infringement penalties can still apply.<sup>298</sup> Thus copyright investors must take care to see that a work does not have hidden liabilities.

In the case of trade secrets, ownership can be even more problematic. Often confused with ownership, trade secrets are essentially know-how that may be either formal (written), tacit, or a combination of both. Simply identifying what a trade secret is can be difficult enough, let alone attempting to value that trade secret. The key know-how that constitutes the trade secret is often bundled with other forms of intellectual property, such as patents. Defining who owns that know-how, especially when it is tacit, can be a matter of dispute. Does it belong to the organization or to the specific individual? Often that determination is decided by contract and employment law. In some cases, the organization retains all rights; in other cases, rights are retained by the individual who created/discovered that knowledge.<sup>299</sup>

Even when the right to use the trade secret is not in dispute, the exclusivity of that right is not guaranteed. Knowledge is a non-rival good, meaning that it can be possessed by more than one individual/organization at a time. Exclusivity must be enforced through legal means, often through a breach-of-contract suit. As discussed in the earlier section on trade secrets, it's not a trade secret until the court says it is.

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In real estate, ownership uncertainty is reduced through clear title registration processes and surveyors' plats. That is the role of the intellectual property system. Any lingering uncertainty is handled through title insurance. Similarly, as discussed earlier, intellectual property insurance is available, including insurance to cover the validity of a patent.

But patent insurance may come with a price that makes it essentially unavailable. In the case of third-party infringement insurance, a recent study for the European Commission concluded that "in no part of the world has Patent Litigation Insurance (PLI) been particularly successful."<sup>300</sup> That finding is not shared by all. But enforcement and litigation insurance can suffer from the fatal flaw of becoming a funding mechanism: companies simply buy the insurance knowing that they are either the likely target of an enforcement action or are planning on starting an infringement case against someone else. Premiums go in and claims go right back out.

In the U.S., companies that underwrote liability insurance in the 1990s were badly burned with loss ratios of 4000 percent to 6000 percent.<sup>301</sup> Companies such as Samian and Intellectual Property Insurance Services are once again underwriting patent liability in the United States. However, there is some concern that the size of the policies can cover the actual costs, especially given the U.S. contingency fee system.

More akin to homeowners' insurance than title insurance, first-party insurance approaches the issue of ownership the other way: protecting what you have.

In the case of trade secret insurance, it is more a form of employment practices liability insurance because the key feature is protection from employees' divulging the secret information. As such underwriting the risk entails looking at a company's policies and procedures related to training of its employees, vendors, and consultants on what the

trade secrets are and on which information the company considers to be trade-secret-protected.<sup>302</sup>

Like any insurance, the issue for all IP protection is recognizing the risk and setting the appropriate price for the transfer of that risk. Finding that balance is difficult. Vance argues that companies don't buy this type of insurance because there is no real transfer of risk:

The only policies that exist are dollar for dollar, meaning that the insured pays for the loss at the end of the day. There is a feeling that if risk transfer was offered, people would not protect their IP. Some felt the same way about employment practices coverage before it was offered.<sup>303</sup>

In other words, insurance companies are afraid they cannot effectively manage or quantify the risk and companies do not think they are buying any real protection.

### **Treatment of Intangibles in Existing Rules and Regulations**

Recent policy changes have started improving the regulatory framework for governing intangible assets. The implementation of SFAS 141 and 142 expanded SEC classifications and guidance on MD&A statements, and Sarbanes–Oxley reforms have all worked to better define assets and how they should be classified. However, as noted earlier, the regulations on disclosure and reporting do not go far enough.

And regulations do not necessarily encompass intangibles. For example, the SEC defines the asset classes that can be used for asset-backed securitization as a “discrete pool of self-liquidating financial assets.”<sup>304</sup> The seemingly inclusive definition fails to recognize assets where no readily apparent secondary market exists. Any intangible asset without a clear market may not be included. This could present two concerns for intangible assets in securities markets: the lack of recognizable definitions of intangible asset classes by market regulatory entities, and the insufficiency of these entities to capture material information on intangible components of securitizations for investors.

Regulations may also not be cognizant of intangibles. As mentioned earlier, Sarbanes–Oxley requires increased disclosure. Since intangibles can account for a significant or even a majority amount of the value of a company, their accurate disclosure seems essential for compliance with the act. Sarbanes–Oxley, however, has yet to clearly incorporate or enforce compliance on intangible asset disclosure. It is simply silent on a large portion of company value.

### **Transaction Costs (Due to Uniqueness of the Deal)**

The purpose of monetization is to raise funds, either through revenues in the case of sale and licensing or through investment capital in the case of collateralization and securitization. To the extent that funds are available through other mechanisms at lower costs, the incentive for monetization disappears. Thus, the higher the transaction costs, the less the incentive. This is true in all forms of monetization. If the cost of patenting a

technology and/or the costs of licensing that knowledge is high, there is less reason to do it.

There are ways to overcome high transaction costs. For example, Haller and Palim argue that a patent pool is one way of lowering some of the transaction costs:

Rather than pursuing enforcement and licensing on its own, a patent pool provides a mechanism for sharing those costs and risks. This is particularly attractive to smaller patent holders for whom such licensing and enforcement costs might otherwise be prohibitive.<sup>305</sup>

In the case of collateralization and especially securitization, another set of transaction costs arises due to the complex structure of the deals. For the most part, the securitization deals discussed earlier have been one-off deals. While there is a general framework for asset-backed securities, there is little standardization in the case of intangible asset deals. Each deal has to have its own specific structure to make the deal work—thereby raising transaction costs.

Securitization faces yet another hurdle. The purpose of securitization is to increase liquidity. Assets that are not easily traded, such as individual mortgages, are bundled together into a recognizably traded financial instrument. However, as the subprime mortgage market problems have revealed, liquidity in a financial instrument can quickly disappear, especially if there are doubts as to the value of the underlying asset. The lack of liquidity, or at least the potential uncertainty over liquidity, also raises the transaction cost by requiring higher assurances and covenants and increasing the cost of capital.

As Roubini notes:

Some specific ideas on how to make new complex and exotic financial instruments more liquid and easier to price would be to make such instrument more standardized and have them traded in clearing house-based exchanges rather than over the counter. The benefits of standardization are clear as such standardization would allow to compare securities with similar characteristics and would thus improve their liquidity. Moreover, instruments that are exchange-traded through a clearing house would have much lower counterparty risk, would be subject to appropriate margin requirements and would be appropriately marked-to-market on a daily basis.<sup>306</sup>

## **Insufficient Supply**

As mentioned earlier, markets need both thickness and lack of congestion. The congestion problem is in part answered by the structure of the market, as discussed in the section above. The issue of thickness is a matter of incentives for supply.

Prudent corporate strategy should account for the intangibles it owns. Assets such as patents, trademarks, copyrights, and processes may contain enormous profit potential. Microsoft, which filed as many as 3,000 patents in 2004 alone, credited this innovative thrust for expanding its workforce by 12 percent.<sup>307</sup> The attributes and opportunities of

these assets should be carefully reviewed to unearth the profit possibilities. Many industry experts believe that intangibles are significantly overlooked by organizations, much to the detriment of their bottom line. In addition, holding un- or underutilized intangibles can needlessly cost an organization a significant amount of money. Proprietary rights, for instance, have to be licensed, cataloged, and protected. Dow Chemical saved up to \$40 million a year in maintenance fees alone by reducing its portfolio of unutilized patents.<sup>308</sup>

Still, while many firms may be sitting on veritable goldmines of unutilized or underutilized intangibles like inactive patents, few may have the internal means or understanding to turn them into revenue-generating assets. Regardless of the profit possibilities, companies simply do not have enough incentive to account for and disclose their intangible assets. Measurement is costly, subjective, and difficult. Many intangibles are tightly interrelated and hard to correlate across business units and profit centers. Furthermore, there exists no overt tax advantage or financial inducement for disclosing intangibles, and many organizers are justifiably fearful of opening their innovative vaults to the eyes of competitors. Because companies are not required to disclose their intangible assets publicly, few, if any, do so.

While recent legislation reforms like Sarbanes–Oxley’s Section 404 have begun to push for the disclosure of certain intangibles in financial reports, many firms still guard information on their intangibles as strategic information. The general thinking has been that disclosing the content of assets like R&D is akin to revealing the future direction and objectives of the company. Such information, they claim, makes proprietary developments vulnerable to replication, while also tipping one’s hand on strategic initiatives before the company is ready to go to market.

The culture of defensive patenting feeds into this ethos of keeping information on intangible assets close. There appears to be an enduring perception that intellectual property should remain locked up.<sup>309</sup> As Phelps explains, “management is blinded by two false assumptions: that patents effectively deter infringement and licensing patents somehow undermines a company’s competitive edge by removing barriers to competition.”<sup>310</sup> The result is a perception of patents that McCurdy likens to the nuclear arms race, with each side trying to horde an ever-growing number of defensive patents.<sup>311</sup>

There is some rationale for defensive patents. Detkin classifies patents as need-to-have core patents, good-to-have patents in the company’s area of expertise, and unrelated patents. But he argues that 50 percent of a typical IT company’s patent portfolio is nothing but unrelated overhead patents. Good-to-have patents are worth licensing and unrelated patents should be sold off.<sup>312</sup>

## **Policies**

Any discussion of policies in an area such as the monetization of intangibles must at least acknowledge the broader issues of innovation and economic competitiveness. Areas such as macroeconomics, education, worker training, R&D funding, and entrepreneurship lay the groundwork for the creation and utilization of intangible assets.<sup>313</sup> Innovation is, in part, predicated on these policies. However, other areas of policy, such as technology transfer, intellectual property rights, taxation, etc., directly impact the monetization process.

Each section below starts with a set of possible policy actions (the full list is compiled in Appendix C).

It is beyond the scope of this review to present an exhaustive list, and definitive analysis, of every possible policy option. Our goal, rather, is to outline potential areas for action. The purpose is to provide an agenda for ongoing policy work—and especially to raise awareness of how and why intangibles should be considered as part of current actions and reviews as market participants and government agencies work through the current financial issues.

Some of the policy recommendations are ready for execution. Others are presented to highlight the need for additional investigation. Some may provoke agreement in principle but disagreement on specifics. Others are presented to stimulate debate and discussion. All are included to provide an understanding of the range and scope of issues that need to be addressed to facilitate the monetization of intangibles. Ultimately, the policy actions are aimed at three objectives: 1) make current owners, such as company managers, aware that they have intangible assets of value that can be sold in the marketplace; 2) create processes and mechanisms that simplify the transaction between buyers and sellers; and, 3) create a comfort zone for buyers, so that they are willing to put up their money.

## **Identification and Disclosure**

### **Policy Actions:**

- Reinststate the joint FASB and IASB research project on expanded disclosure guidelines for intangibles
- Review and revise SEC definitions of asset-backed securities to include intangible asset classes as necessary
- Clearly designate nonfinancial measures for evaluating intangibles in MD&A portion of financial statements
- Create a safe harbor in financial statements for corporate reporting of intangible assets
- Modify Sarbanes–Oxley so that there is a clear directive for assessments of “material” intangible assets

- Utilize the stock exchanges (and the proposed Intellectual Property Exchange in Chicago) as initial testing grounds for increased intangible disclosure by requiring listed members to make additional disclosures that capture intangible metrics
- Create an intangibles reporting and valuation guideline association/group, similar to the International Private Equity and Venture Capital Valuation Group and the Enhanced Business Reporting Consortium.

Identifying intangible assets is the basic starting point for any set of policies that will facilitate the monetization of these assets. Issues related to both supply and demand of intangible assets can be attributed to the problem of their invisibility.<sup>314</sup> Addressing this problem will require changes in both accounting and financial disclosure regulations.

The problem inherent to SFAS 141 and 142 is not in the rules themselves, but rather in the incompleteness in accurate intangible valuation that the rules attempt to rectify. The business combination is itself more clearly defined on the basis of acquired intangibles and goodwill, but the overall valuation of enterprises, whether involving acquisitions or not, has not been addressed. Since most intangible assets are created internally rather than through acquisition, these accounting rules miss the bulk of the asset class in the financial disclosures. The solution undoubtedly emerges from more accurate valuation standards and pervasive implementation of accounting for intangibles.

Annual intangible asset appraisals based on FASB-defined valuation models, for instance, could become a requirement of impairment disclosure as introduced by SFAS 142. All companies, regardless of their acquisition history, would need to determine and disclose the value of their intangible assets to investors. The result would provide useful insight to investors while also offering a more fair disclosure process to all organizations. Instead of just capturing the costs and value transfers of business combinations, new all-encompassing rules would detail the asset value increases and decreases of all business entities.

Last year, FASB and IASB explored undertaking a joint research project to look at ways to expand disclosure guidelines for intangibles, with IASB taking the lead in developing the proposal. Unfortunately, at their December 2007 meetings, both IASB and FASB decided to shelve this project, citing limited resources.<sup>315</sup> IASB has at least expressed a wish that research on the issue continue. However, both stated “the timing is uncertain.”<sup>316</sup>

This decision is unfortunate, indeed. At a minimum, FASB and IASB should devote adequate resources to research on the topic to bring our state of knowledge to a point where guidelines can be issued.

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The SEC is the other key player in the identification of intangible assets. Quite simply, the SEC needs to more seriously consider the role of intangible factors in company assessments. Its regulatory definitions should seek to expand the scope of its definition of

intangible asset classes while clearly designating nonfinancial measures for evaluating them. Measures that help to portray accurate assessments of such factors as employee turnover, time to market, and product development strategy would provide valuable guidance for investors across a given industry. Such benchmarks as employee relations and customer satisfaction measures would make management evaluations more accurate, pervasive, and useful. The SEC could signal to industries the specific measures it would like to see when performing compliance reviews, thereby acknowledging that management should consider making such disclosures to ensure smooth reviews.

In opening up further disclosure, the SEC could create safe-harbor provisions for the disclosure of certain non-GAAP information. In January 2003, the SEC, pursuant to section 401(b) of Sarbanes–Oxley, adopted a new Regulation G on disclosure of non-GAAP financial information. These regulations require that any disclosure of non-GAAP financial measures also present the most directly comparable GAAP financial measure and reconcile the disclosed non-GAAP financial measure with the most directly comparable GAAP financial measure.<sup>317</sup> Sarbanes–Oxley also imposes severe penalties for providing misleading or inaccurate information. This combination may substantially limit the disclosure of non-GAAP financial information.

There are good reasons to limit such information. The purpose of GAAP is to ensure that the assumptions and rules used to compile financial information are understood by all. There is a real danger of non-GAAP information resulting in misleading financial statements.

However, it has long been recognized that some financial information not covered by GAAP can also be useful and relevant to investors. Changes may be necessary to give companies an incentive to provide that information. As recent white paper by the AICPA Assurance Services Executive Committee notes:

In order for efforts to improve reporting and assurance to reach fruition, there is a need for improved safe-harbor legislation to protect directors, managers, and auditors who make a good faith effort to provide more high quality, transparent disclosures.<sup>318</sup>

Creating a safe harbor for reporting intangible assets was specifically recommended in the 2001 Brookings Institution Task Force on Intangibles report, the 2001 Garten Task Force report, and the 2004 National Innovation Initiative report.<sup>319</sup>

To provide further incentives for disclosure, the Sarbanes–Oxley Act could define a clear directive for the disclosure of intangible assets considered “material.” As discussed earlier in this paper, many feel that such disclosures are already required. Others, such as Malackowski, have called for explicit inclusion of intangibles under Sarbanes–Oxley.<sup>320</sup> Better disclosure should reduce the perceived risk of the enterprise, as Sarbanes–Oxley ultimately seeks to achieve. The financial benefits of such disclosures have been noted, at least anecdotally.<sup>321</sup>

While encompassing all intangible assets in such compliance requirements may be too difficult to implement at this time due to the lack of valuation standards for these assets, the SEC should at least require the disclosure of intangibles as they relate to the financial condition of the enterprise. As Henning points out, simply disclosing the existence of intangible assets is not sufficient:

The disclosure of risks, to the extent that strategy or financial conditions may rely on patents with a short-term, finite life and [in] the absence of alternative sources of revenue, [is] not only sound business practice, but a critical part of the intent of Sarbanes–Oxley. These risks need to be disclosed. The risks associated with patent validity (quality) today have become one of the enormous variables in today’s competitive environment.<sup>322</sup>

The Brookings report recommends that a “separate part of the Form 10–K be earmarked for disclosures that are specifically designated as experimental and inherently subject to mistakes and volatility.”<sup>323</sup> For instance, companies in high-tech or innovation-driven industries could logically be expected to detail the condition of their IP assets and to make relative assessments of intangible investment performance based on industry standards or historical company benchmarks. A pharmaceutical company would disclose the value of its drug patents based on comparable asset amounts, management would assess its R&D activities through speed of delivery-to-market benchmarks, and workforce talent would be judged based on comparisons of credentials and staff size to previous company markers. Such overt disclosures would enable more accurate insight for investors and creditors alike while also promoting the above-the-board reputation of company management.

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Furthermore, systematic oversight bodies beyond government regulators could either be established or expanded as mechanisms for facilitating disclosure of and accounting for intangible assets. While the SEC and FASB would play a key role, other organizations could also have important roles. For example, self-regulatory organizations (SRO) dictate compliance standards for their members. In fact, the stock exchanges could serve as an initial testing ground for increased intangible disclosure by requiring listed members to make additional disclosures that capture intangible metrics. Ideally, a separate SRO entity would work best, incorporating companies of all sizes and industries to generate useful metrics on intangible asset valuations and returns. The new Intellectual Property Exchange could also play a role in this standard-setting process.

The accounting industry already has one model for creating a framework for nonfinancial disclosure: the Enhanced Business Reporting Consortium (EBRC).<sup>324</sup> EBRC is focused on broad reporting issues, not intangibles specifically and not on valuation. But it does provide a general reporting framework under which intangibles could easily fit.

Examples of other industry-based groups come from the private equity and venture capital industries. Created by the Association Française des Investisseurs en Capital (AFIC), the British Venture Capital Association (BVCA), and the European Private

Equity and Venture Capital Association (EVCA) in 2005, the International Private Equity and Venture Capital Valuation Guidelines have been endorsed by a number of private equity and venture capital associations from a number of countries.<sup>325</sup> The U.S. Private Equity Industry Guidelines Group (PEIGG) issues both valuation and reporting guidelines.<sup>326</sup>

An independent entity could also promote intangible asset disclosure by objectively gathering data for evaluating a firm's value based on these assets. A number of organizations already provide information on important metrics, which are not required under GAAP, such as social responsibility and environmental sustainability. *Fortune* magazine's annual "Best Companies To Work For" survey tracks intangible value by generating a useful scoring metric to showcase companies that have positive employee relations, a critical intangible asset.

Another useful source for intangible asset disclosure could be industry-related organizations. These powerful entities can demand that members track certain variables, undergo stringent testing on these variables, and allow these metrics to be published. Independent vehicle safety, resale, and customer satisfaction measures have prompted auto companies to invest in such intangibles as safer products, increased product features, and innovation just to stay competitive.

The creation of independent entities and industry-related organizations to undertake these tasks is an action that only industry can take. The federal government can play a limited role in providing some form of official recognition of such activities, similar to the way in which credit rating agencies are officially recognized.<sup>327</sup>

## Valuation Standards

### Policy Actions:

- Convene a special FASB/SEC task force on valuation
- Support and encourage increased research on valuation standards
- Work with the International Standards Organization efforts to set brand and patent valuation standards to ensure that relevant expertise and stakeholders are engaged.

It will likely be difficult to find a common set of metrics that captures and discloses all the various investment risks of intangibles. The creation of valuation standards will probably be even harder. As noted previously in this paper, many intangible assets like enterprise-specific intangibles do not lend themselves to easy measurement because they simply do not have the characteristics necessary for traditional valuation models. Intangible assets that offer predictable cash flow and comparable market value do have some attributes that allow for traditional modeling. But even then, many people feel that these intangibles are still too unpredictable to provide reliable valuations.

The further expansion of the monetization of intangible assets is highly dependent on a market-wide acceptable standard for valuation. Without this, many investors and creditors will choose not to place financial bets on them, or at least, they will only do so

at a hefty premium that may make the financing option too prohibitive to be useful. This is a familiar story for innovation in any industry, but this hurdle could provide profitable opportunities for financiers once a consensus solution emerges.

Here again, the role of the policy entities, specifically the SEC, the FASB, and the IRS, is key. There may be an opportunity for two of the key players—SEC and FASB—to jointly address part of this problem. Valuation is an issue for more than just intangibles. The recent turmoil in the mortgage and ABS markets has raised important issues concerning valuation in unstable (and sometimes frozen) markets. This has come to a head over the implementation of new fair-value accounting standards. Recently, the SEC has sent guidance letters to 30 CFO regarding the use of these new standards.<sup>328</sup> The SEC then posted a sample letter on their web site.<sup>329</sup> The key requirement of this guidance involves an explicit discussion of the methodology used to price assets as part of the MD&A section of the company’s financial report. In other words, SEC is using the old math teacher approach of show-your-work: “don’t just give me a number, tell me how you got there.”

This way of handling valuation concerns could just as easily be applied to intangible-backed lending and securitization. An SEC approved disclosure system for the valuation of currently hard-to-price assets would set a good precedent for all “exotic” asset classes. In addition, forcing companies to discuss their valuation methodologies will foster a greater scrutiny and evaluation. That should lead to greater standardization of the methodologies and a more transparent (and less risky) way of deal with these assets.

But the SEC guidance is only the first step. To follow up, the SEC and FASB should convene a joint task force on valuation to review the experiences of companies in complying with the new SEC guidance—and to see what lessons might be learned for standardization of a valuation methodology.

However, numerous other entities involved in both the primary and secondary markets, such as exchanges, rating agencies, and large investors, also play a part. The process of setting valuation standards must bring all these players to the table.

In this regard, the greatest potential public policy contribution may be the encouragement of research on the topic. Independent organizations and investor groups could also fund this research. One specific area where public policy support may be needed is in the application of intellectual property rights to such research. Under the current rules allowing patenting of business processes, it is conceivable that valuation methodologies could become proprietary business secrets rather than industry-wide standards. The proprietary lock up of innovative valuation methods may convey a competitive advantage to one particular organization, but it would also stifle the further market growth to the detriment of all.

One of the more intriguing valuation ideas is to create a “market-enforced self assessment.” Such mechanisms have been suggested since the medieval days for tax assessment. Under this model, the merchant self-declares the value of his goods for

purposes of taxation, but the King reserves the right to buy the goods at that stated price. In the case of patents, it would work as a substitute for a patent renewal fee:

1. Patent holders would be required to provide a self-assessed value for their patents. An annual Patent Property Tax [in lieu of the patent renewal fee] would be paid based on that value.
2. A marketplace for patent selling and buying would be established.
3. Upon paying an “earnest money” fee, a patent buyer could challenge the self-assessed value, quoting a higher value for the patent.
4. If the challenge value is accepted by the patent holder, then the patent holder would pay the Patent Property Tax [PPT] on the new value.
5. If the challenge value is rejected by the patent holder, then the buyer is obligated to purchase the patent for the challenge value.
6. The patent buyer would also have to pay the PPT for the year in which it was purchased.<sup>330</sup>

The creation of such markets must be done with care and must address the issues of thickness, congestion, and safety as described earlier in this report. In addition, such self-assessing processes only work when there is both a market and an incentive, such as taxation, to declare value. Only a few cases of intangible assets might meet these circumstances. Still, the idea should be explored further.

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Another avenue for activities is the International Standard Organization (ISO). At the urging of the German Institute for Standardization, the ISO has launched a project on brand valuation.<sup>331</sup> The ISO is also looking at a project on patent valuation, again at the urging of the Germans.<sup>332</sup> This work goes through the national standardization bodies. The relevant body in the U.S. is the American National Standards Institute.<sup>333</sup>

The end result of these two projects will likely be a de facto standard for valuing intangibles. They will have to confront all of the valuation challenges described in this paper. To be successful, they will have to define a valuation methodology that overcomes the weaknesses of the existing methods. Doing so will require a high level of expertise and experience.

It will also require fully engaging the significant stakeholders, including the legal and accounting professions. For example, the ISO must engage the experts at both FASB and IASB, and build on the knowledge base already established. Done right, the ISO projects can help build a strong foundation for an agreed upon valuation methodology. Done wrong, they risk adding to the confusion.

## Regularizing the Market

### Policy Actions:

- Explore the creation of an Intangibles Mortgage Corporation (Ida Mae) to regularize the intangibles-backed securities market, either as a limited government-sponsored enterprise (GSE) or as an independent organization
- Review all security regulations to determine their applicability to intangibles
- Review federal and state insurance laws and regulations to promote the development of financial sound insurance coverage of intangibles.

Markets for intangibles are developing at both the primary and secondary level. Primary markets involving the sale and licensing of intangibles are generally defined and follow a regular process. Licensing operations are well established and new methods of asset sales, such as the IP auctions, follow known paths. The secondary market of intangible-backed securities is still in flux.

Intangible asset securities harness the attributes of previous asset-backed secondary market offerings. The potential for structuring financial products that incorporate intangible assets is limited only by the financiers who create them. These securities not only offer significant rates of return, but they can also support distinct risk reduction for investors. However, as we have seen from the secondary market in subprime mortgages, market enthusiasm for these securities may outrun market understanding of the risks and rewards. If intangible asset-backed securities are to become routine, further steps to regularize the market may be needed.

In part, dealing with the issues of identification and valuation discussed above will help. However, as long as these deals remain essentially unique, one-off transactions, a broader secondary market will not emerge.

The comparison with other asset-backed securities raises inevitable questions, pro and con. The travails in the secondary mortgage market show both sides. While credit for parts of the market dried up, understood products known as “conforming loans” have generally withstood the credit liquidity problems. These products meet the specific standards (hence the term “conforming”) and are guaranteed by one of housing GSEs, Fannie Mae, Freddie Mac, or FHLBanks.<sup>334</sup> Understanding both the standards and mechanisms that provide liquidity are important to this process.

The rise of other forms of asset-backed securities, such as auto loans and student loans, also show how markets can be created and standards set. The success of the Sallie Mae loan market may act as a model for the development of these markets.<sup>335</sup> Sallie Mae loans and student loans—or, put another way, loans secured by knowledge enhancement, in itself an intangible asset—are bought and resold relatively easily in secondary markets.

There may also be an opportunity for the investor community to form their own entities to set standards—as discussed earlier. Fannie Mae and Freddie Mac are buyer entities;

therefore, their standards are seen as stronger than credit agencies, which are currently perceived as agents of the seller.<sup>336</sup> A similar standard to the “conforming loan” category for mortgages could be created for intangible asset-backed securities.

The creation of underwriting standards, with or without liquidity guarantees from a GSE or other entity, would be an improvement over the current situation where each deal must be specifically and uniquely structured to meet the requirements of the credit rating agencies. The development of a widely understood template for intangible-backed securities would regularize the market and lower transaction costs.

It is unclear if the development of intangible-backed securities is far enough along to take this next step. We may simply not yet have enough information and experience with these financial instruments to develop such a template. On the other hand, the explicit creation of mechanisms to undertake the development template can speed up the process.

The question of supply is also an important consideration when attempting to create a standardized template. Will there be enough of a deal flow to warrant the creation of such a template-creating entity? The chicken and egg question looms large.

As a first step, standard-setting mechanisms should be explored, including the creation of a limited government-sponsored enterprise to regularize the intangibles-backed securities market. It is recognized that the creation of such an entity (call it the Intangibles Mortgage Corporation—Ida Mae) would be highly controversial. Currently there is a fierce debate over Fannie Mae and Freddie Mac, with important public policy issues at stake.<sup>337</sup> But at this stage, an in-depth study of all mechanisms, including GSEs, is needed to understand the costs and benefits. Nothing should be off the table based on ideology.

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As part of the policies for greater identification of intangibles, it was noted earlier that a broader definition of assets may be needed. In addition to aiding identification, a broader definition of securitizable intangible asset classes might also open the door to more creative financial securitization vehicles that support the monetization of heretofore unusable asset classes. It is unclear whether the definition of asset-backed securities applies to emerging forms of intangibles that may not be self-liquidating. The SEC should undertake a review of security regulations to determine whether such a modification is needed.

The SEC also needs to be generally aware of and sensitive to the emergence of the intangibles. Many securities laws and regulations may impact intangibles.<sup>338</sup> Those impacts are likely to emerge as the market in intangibles and intangible-backed financial instruments grows. The SEC should take care not to place intangibles in an unfavorable position, simply because they were not at the forefront of the discussion during the adoption of the rules and regulations.

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Another way of regularizing the market for intangibles is through risk reduction via insurance. Investors are more willing to lend if they know the underlying asset is protected by some form of insurance. As noted earlier, securitization efforts often require a credit enhancement/bond insurance. Sale, leasing, and collateralization of intangibles may benefit from a similar expansion of insurance. Working in conjunction with existing credit enhancement insurance products, the regularization of intellectual property insurance would not only reduce risk but also help promote a set of standards that could reduce transaction costs. To be cost effective, insurers will need to require a certain level of intellectual asset management. A virtuous cycle could be created whereby the requirements to obtain insurance lead to better recognition and management of intangible assets, including better risk management, which lead to lower insurance costs. The government role here may not be to create these insurance products but rather to promote financially sound products and prevent fraudulent ones. Thus, the various insurance regulators should review insurance regulations to see what changes may be needed. Given that insurance regulation is both a state and federal activity, this review will need to be done on both levels.

## Market Oversight

### Policy Actions:

- Work with credit rating agencies and monoline insurers to provide a transparent process for rating intangible asset values
- Coordinate with ongoing efforts at market reform, such as the President's Working Group on Financial Markets, to ensure that intangible-backed assets are properly included.

From a policy perspective, it is imperative that market overseers and government regulators stay on top of accurate financial disclosures. They must demand thorough disclosure of intangible assets and design a comprehensive means to do so. Previous problems in the derivatives markets, mutual fund markets, stock markets, and subprime mortgage markets showcase these concerns. In many cases, the regulators were as blind as the investors in understanding the financial manipulations perpetrated by financial market innovations that skirted the rules and norms. Lending standards deteriorated as fee revenues increased.<sup>339</sup>

The danger is especially acute for intangibles. Today's accounting guidelines are too incomplete for effective oversight on true corporate valuation. It is still too easy for firms to prop up a financial house of cards on the promise of elusive intangible assets and lucrative future returns that cannot be accurately checked by investors.

The incentive for financiers to design products that meet their clients' needs for intangible asset monetization could be quite lucrative. However, inadequate market rules guiding these designs provide an opening for unscrupulous actions. Without clear rules and oversight, this new financial market could go unchecked, creating an inevitable disaster for the companies, investors, and markets that use these products. Much like the

junk bonds of the past, unchecked ideas that run rampant can leave investors and corporate borrowers mired in financial commitments from which they can lose significantly. Only through a proactive understanding of the direction and motivation behind new financial products can a market overseer know where to look to be sure all transactions remain on the up and up.

In this regard, the most pressing issue may be that of credit standards and enhancement. Monoline insurers, which provide credit enhancement, are under severe financial pressure.<sup>340</sup> There is a danger that, unless these insurers can be recapitalized or other companies can move into that business, the cost of underwriting new bond offerings will significantly increase.<sup>341</sup> Part of that recapitalization may well include stricter standards and regulations.<sup>342</sup>

Rating agencies are currently under increased scrutiny as to how they initially rate and then monitor and change their ratings, specifically of asset-backed securities. One major issue has to do with how deals are structured in cooperation with the rating agencies to gain a favorable rating.<sup>343</sup> In some cases these bundles of securities were so complex that they become, as one commentator put it, “trust-me loans.”<sup>344</sup>

Ironically, asset-backed securities came into being in part because of deterioration in the quality of unsecured corporate credit.<sup>345</sup> To restore the role of asset-backed securities, a clear understanding of the process is needed to calm investor (and regulator) jitters. As Penner notes, “Today’s market is paralyzed with panic primarily because of a lack of faith and trust.”<sup>346</sup> He suggests that “tweaking the securitization model would be to realign the interests of the governing bodies, that is, the rating agencies, more precisely with those they truly represent—the bond buyers.”<sup>347</sup> Creation of clear standards for valuation and ratings, as discussed above, will also alleviate concerns—helping both the rating agencies and the monoline insurers.

A related macroeconomic concern involves the systemic risk posed by such new financial instruments.<sup>348</sup> More and more questions are being raised about the scope and complexity of these instruments. It has become clear that the risks are unknown, including whom exactly bears the risk in these layered instruments, where that risk is distributed within the financial system, and how it correlates with other risks. One of the concerns in the subprime meltdown was the lack of understanding as to the extent of the exposure. As a result, buyers of these complex debt instruments pulled back from the market to first assess their financial situation and to better understand exactly what they were buying.<sup>349</sup>

Whether these concerns will poison all asset-backed securities and lending of esoteric asset classes, such as intangibles, remains to be seen. The securitization of intangibles is different from mortgage-back securities in a number of important ways. As Lachman points out, the process of securitization uncouples the revenue-generating asset from those who created it. In the case of mortgages, “it also gave the originator every incentive to push out mortgage loans at an increasing pace without regard for how they would perform over the longer term.”<sup>350</sup> With IP securitization, the company holding the IP is the originator. Even though ownership is transferred to an SPE, the originating company

often keeps a management service. Thus, the servicing arrangement is a key break on simply pushing volume out the door, irrespective of quality.

As a recent commentary noted, “The secondary market for outstanding CDOs [collateralized debt obligations] is very limited, partially because the value of their underlying assets is often mysterious.”<sup>351</sup> Malmgren points out that these securitized assets are essentially illiquid.<sup>352</sup> This is especially true for the so-called covenant-‘lite’ securities where the conditions are so weak that it is hard to seize the underlying asset in cases of default. With strong covenants in intangible securitization, these types of securities may be looked on more favorably by the markets.

However, the complexity of the debt instruments and the risks associated with SPEs are still issues that must be dealt with. Increased transparency with respect to these assets and ongoing oversight will help restore trust and stability. While this is a much larger issue than just intangibles, those interested in facilitating the monetization of intangibles should support efforts to increase transparency within these complex financial instruments. The recent report of the President’s Working Group on Financial Markets (PWG) is a step toward addressing many identified weaknesses in the financial system.<sup>353</sup> Much of the analysis, rightfully so, focuses on the current state of affairs. Mortgage securities and the complex structured instruments spun off from those securities, often held in off-balance sheet vehicles, dominate the discussion. Intangibles, especially intangible asset-backed securities, were not even a mote in the eye of the PWG.

Many of the recommendations, however, may affect how intangibles are treated. For example, one recommendation is that “[t]he PWG will engage the private sector to create a committee to develop best practices regarding disclosure to investors in securitized credits, including ABS and CDOs [collateralized debt obligations] of ABS.”<sup>354</sup> Information that should be disclosed in cases of intangible-backed securities is very different from mortgage-backed securities. Best practices should encompass all forms of ABS if they are to be effective. The PWG- sponsored committee will need to incorporate those with expertise in intangible-backed securities.

This is but one example. Numerous other recommendations of the PWG may affect intangibles. A careful review of the PWG’s recommendations is needed; the PWG should be cognizant of, and include expertise on, intangibles as it moves forward in implementing its recommendations.

## **Perfection**

### **Policy Actions:**

- Create a national central registry of intellectual property security interests.

Interrelated with the problem of identification and valuations is that of perfection. The revision to the UCC Article 9 addressed many of the concerns of priority claim infringements by the courts and simplified the UCC filing process. However, as discussed earlier, there is still uncertainty between state and federal laws that apply to security

interests. Each type of intellectual property is governed by a distinct body of statutory and case law. Therefore, a creditor must examine each separately to determine the correct method for taking a valid and perfected security interest. It is a burdensome but good practice to file a security interest at both state and federal levels to protect all of the secured creditors' interests. In addition, a creditor has no easy means to ascertain that the assets are not pledged on other securities.

In other areas, valuable tools already exist, such as the SEC's Economic Data Analysis And Retrieval (EDGAR) and the Municipal Securities Rulemaking Board's (MSRB) Municipal Securities Information Library (MSIL). These registries have served as the main source of information for perfection of securities and protection in the event of litigation. There is no reason why such a central registry for intangibles should not exist in the United States. Such a centralized registry of intangible assets will also serve as a useful tool in the identification of these assets, thereby also helping unlock the issue of supply and demand.

Murphy and others have proposed the creation of a centralized registry that will "allow practitioners, creditors, and other interested parties to conduct a single, comprehensive search to uncover prior recorded interests and make a determination of an asset's encumbered status."<sup>355</sup> While the ideal solution would be a centralized database, Murphy et al. proposed a portal-type system that would allow states to maintain control over their own systems. The report outlines three legislative options for the creation of such a registry: the Security Interests in Intellectual Property Restoration Act (SIIPRA), the Intellectual Property Security Interest Coordination Act (IPSICA), and the Intellectual Property Collateral Coordination Act (IPCCA).

A pilot program sponsored by the U.S. PTO is currently underway. Its purpose is to develop a "prototype Web technology-based system for perfecting security interests in intellectual property rights."<sup>356</sup> The project, housed at the University of New Hampshire's Enterprise Integration Research Center, also involves the Franklin Pierce Law Center and University of Maine School of Law. As soon as the pilot system is publicly available, it should be quickly evaluated with an eye toward rapidly expanding it into a national central registry, along the lines of the legislative models proposed by Murphy and colleagues.

## Tax Incentives

### Policy Actions:

- Create a permanent knowledge tax credit that would increase investments in intangibles
- Explore lowering the tax rate on intangible asset royalties, in conjunction with stricter regulations on international transfer-pricing mechanisms and cost-sharing arrangements and on passive investment companies
- Review the impact of expensing versus depreciation on the investment in intangibles, including the impact of the 2002 IRS regulations, Capitalizing Intangible Assets
- Undertake a comprehensive review of the tax code as it relates to intangibles.

Tax incentives are another way to promote intangible investment and to foster innovation in private markets. There are numerous specific tax incentives for innovation.<sup>357</sup> Many of these proposals seek to spur innovation in general, while some specifically target the development of intangibles. The federal research and experimentation tax credit (generally known as the R&D tax credit) is one of the most talked about proposals.<sup>358</sup> Not as well known, but just as important, are various proposals for a knowledge investment tax credit.<sup>359</sup> These proposals would expand the R&D tax credit to also include worker training. In both cases, the tax credit is given specifically for investments in the creation of knowledge assets. Creation of a permanent knowledge tax credit would be helpful in increasing these investments.

Besides possible tax incentives for investments in R&D and human capital, there is the treatment of such investments to take into account. As noted earlier, most of these fund outflows are generally treated as immediate expenses for tax purposes, but there are cases where depreciation is allowed. Either way can result in significant tax savings depending on the situation. We do not fully understand the impact that expensing versus depreciation has on the investment in intangibles. A review of the impact of the different treatments is needed, including a review of the 2002 IRS regulations, *Capitalizing Intangible Assets*.

Providing a more direct tax incentive to the licensing of intangibles by lowering the rate on intangible asset royalties, such as to the capital gains rate, is a more controversial proposal. This lower rate could be crafted to apply only to royalties for new licenses for a limited time, such as a sliding scale for three years. In crafting such an incentive, safeguards would need to be established to prevent the incentive from being used for simply transferring existing licenses to SPEs and to ensure that the incentive went to new licensing activities only.

In conjunction with such a tax incentive, the problem of tax havens should be addressed. Transfer pricing mechanisms and cost sharing arrangements need to prevent those transfers that, as the IRS describes, are “for inadequate consideration.” The issue (some would say the abuse) of “passive investment companies” should also be handled.

The notion of tax havens and loopholes is often a matter of perspective. One person’s loophole is another person’s incentive. However, there is a growing concern that the tax code has become overly complex and that rates could be lowered in conjunction with the elimination of certain specific provisions. Any such tax reform, including the possibility of closing loopholes currently applied to intangibles and lowering the tax rate on royalties, should be looked at very carefully in the context of the impact on the creation and utilization of intangible assets.

Overall, taxes can affect the development of intangible assets in a number of other ways. The issue of tax reform surfaces regularly on the political scene. In those discussions, most of the attention is focused on issues such as overall tax rates and existing provisions that are related to tangible assets. Little attention is given to intangibles. However, given

the importance of intangibles and the pervasiveness and complexity of the tax code, any tax reform debate should include a comprehensive review of the code as it relates to intangibles.<sup>360</sup>

## Patent Reform

### Policy Actions:

- Create a pre-review pilot program at U.S. PTO
- Continue other efforts at the P.T.O. to increase patent quality in consensus with relevant stakeholders
- Enact patent reform legislation
- Undertake a review of patent litigation and patent liability insurance
- Review federal and state technology policies to encourage promotion of patent pools.

Two activities are already underway that will strengthen the role of patents and increase certainty. First, the U.S. PTO is taking action to address the issue. One of the most promising U.S. PTO actions is a pre-review pilot program that is specifically designed to increase the input of information on prior art.<sup>361</sup> Under this program, participants may suggest cases of relevant prior art, including a detailed description of the relevancy. Participants will then vote to rank the top-10 cases to be forwarded to the patent examiner. This program is voluntary on the part of the applicant. However, participation should pay off in the form of a stronger and more valuable patent that has been subject to a more intense pre-grant review.

The U.S. PTO also continues to make a number of regulatory changes that are supposed to improve patent quality. Most recently, the U.S. PTO published proposed rules concerning the drafting of patent applications (claims) that contain more than one independent and distinct invention, and final rules on the use of multiple claims and requests for continuation.<sup>362</sup> These changes, however, are not without controversy. Critics claim that the changes will hurt biotechnology companies, while others in the information technology industry support the changes.<sup>363</sup> The U.S. PTO should be encouraged to undertake regulatory reform efforts to strengthen patent quality. But such efforts should be carefully examined to ensure that they meet that goal.

Second, legislation that will make changes in a number of areas is making its way through Congress.<sup>364</sup> This legislation is not perfect and has numerous critics and opponents. But overall it does represent a major step forward. It should help reduce uncertainty over patent validity, help reduce lawsuits, and move toward international harmonization of the patent system—all of which will improve the patent-investment climate.

Patent reform is needed at the front end, back end, and in the internal process. The front end of the process needs more information, such as input related to “prior art,” to ensure that items already covered by patents are not covered again. At the back end, a post-grant review process needs to be instituted to challenge wrongly granted patents. Better criteria

for determining infringement and damages should also be established. And the internal processes and criteria granting patents (novelty) should be improved.

What is the investor's interest? If the investor is seeking a steady income flow through the purchase of an asset-backed security, then the investor's interest is in a predictable royalty stream. To determine if the existing royalty stream is sustainable, the investor needs to know that the patents on which that royalty stream is based are valid and enforceable. The investor also needs assurances that the patent can be defended. If the business model is based on creating new royalty streams (or even on garnering infringement awards), then the investor requires some certainty of success.

History may provide a lesson. Lamoreaux and Sokoloff argue that the patent reform of 1836 was important in opening up patents as an investment tool:

A key innovation in the design of the system ... was the practice of examining applications for novelty and conformity with the statutes before granting patents. This feature was of fundamental significance because approval from technical experts reduced uncertainty about the validity (or value) of patents. Inventors could more readily sell or license patents and realize a return to their ideas in that way, use the patent rights (or the prospects thereof) to raise funds to continue developing or commercializing the inventions, or accomplish both ends simultaneously.<sup>365</sup>

That implied government stamp of approval continues to be a major factor in patenting—even though every patent expert warns that such implied approval doesn't really exist. It is that sense of validity, however, that makes the patent a tradable commodity; without such faith that a patent really stands for something, the system collapses.

Even some critics of the patent reform legislation agree that the current system does not serve investors well. As Frank notes:

Suppose someone comes up with an innovation, and then stumbles across a bad patent on which the invention might infringe. Even if the inventor is willing to resort to litigation to invalidate the patent, the courtroom doors remain closed until the patent's owner either sues the innovator or makes an overt threat. Only then can the innovator file for a declaratory judgment that the patent is either invalid or does not cover the invention. But in the meantime, the sword of Damocles is hanging overhead, increasing risk and thus discouraging investors.<sup>366</sup>

But Frank is more concerned that the post-grant review process will “suddenly make patents a far [riskier] proposition”:

Because investors assume they are investing in the winners—that is, in research likely to be profitable and therefore to invite patent oppositions—values placed on technology companies will probably fall as perceived risk, expense, and delay increase. Inventors, for their part, may fear that the visibility of professional investment can turn otherwise unobtrusive patents into targets.<sup>367</sup>

The key phrase is that investors assume they are investing in valid patents. As some argue, the market needs both good deals and bad deals to set a price—for example, both Park Avenue condos and Florida swampland. But the current system is such that both good deals and bad deals suffer more from uncertainty of ownership and not necessarily from uncertainty over the value of the deal. Imagine a real estate market where not only can no one determine who owns the Brooklyn Bridge, but also whether a person owns their own house.

A key goal of patent reform therefore should be increased certainty and greater transparency. The market needs clear information and a mechanism for smooth commercial negotiations, rather than the current process of validation by litigation.

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Final resolution of the current patent legislation will not end the patent wars, however. Investors in intangible assets need to understand that intellectual property rights will continue to be an evolving arena.

In that regard, the issue of patent litigation and patent liability insurance should be an area of further inquiry. A workable insurance system—covering both the cost of bringing litigation and the cost of potential liability—might be able to serve as a replacement for the defensive patent syndrome. On the liability side, the European Commission report mentioned earlier determined that such insurance would be beneficial, but that a voluntary system would not work.<sup>368</sup> Any European-wide system would need to be compulsory.

However, the Danish Patent and Trademark Office has long encouraged the creation of a patent litigation insurance system for small businesses.<sup>369</sup> As a first step, the Danish insurance company Dahlberg joined with Samian Underwriting Agencies to offer an enforcement policy beginning in December 2007: PatentEnforcer™.<sup>370</sup> This is first-party coverage to offset the cost to small and medium-size enterprises (SMEs) of bringing a patent-infringement case.

Options for expanding patent insurance should be explored in the U.S. as well. Patent litigation insurance would give patent holders, especially SMEs, a greater level of comfort that their rights would be protected. This might help alleviate the concern expressed by small inventors about being overwhelmed in the courts. Patent-liability insurance would help protect companies developing new products. The financial risks for both sides might then be lowered.

Thus, either separately or as part of the ongoing patent reform legislation, Congress may wish to consider requiring a review of the patent insurance system.

The review might also look at an expanded form of directors and officers (D&O) insurance to protect against class-action lawsuits due to a loss of company value because of alleged mismanaging or undermanaging of the IP portfolio (as mentioned earlier). The

review should also include trade-secret insurance, which has been even less successful than patent insurance.<sup>371</sup>

Such insurance, however, would have to be more akin to employment practices liability insurance because the key feature is divulging of the protected information by employees. As such the underwriting risk entails looking at a company's policies and procedures related to training of its employees, vendors, and consultants on what trade secrets are and on which information the company considers to be trade-secret-protected.

Another area for closer analysis is the question of patent pools. Throughout history, patent pools have been organized for a number of reasons, running from cartelization to the setting of standards.<sup>372</sup> A 2000 report by the U.S. PTO found that patent pools can be beneficial in the biotechnology area.<sup>373</sup> Federal guidelines for looking at the antitrust implications are spelled out in a 1995 document.<sup>374</sup> A 2007 review found those guidelines to be working well.<sup>375</sup> Given that guidelines are well established and widely understood, greater promotion of patent pools could be a feature of the state and federal technology policies.

## Spurring Licensing and Facilitating Sale

### Policy Actions:

- Undertake a review how the federal technology transfer system, including Bayh–Dole, does or does not facilitate the creation of intangible assets.

Many of the actions listed above will also help increase the sale and licensing of intangibles. For example, increased requirements to disclose intangibles will increase the likelihood that those assets will be viewed as something with a value that should be maximized.

There may be other ways to spur the greater use of intangible assets. Support for intellectual property sales mechanisms, such as the OceanTomo actions, and licensing activities, including the patent pools mentioned earlier, would facilitate the process. However, it is unclear what government actions would be involved in this regard.

A more direct action would be a review of federal technology transfer activities. As mentioned earlier, these activities are governed by a number of laws, including Stevenson–Wydler and Bayh–Dole. These laws are intended to promote the transfer of technology from government laboratories and provide for recipients of federal research funds to retain the intellectual property rights coming out of that research. However, there is some concern that this technology transfer system, especially the Bayh–Dole Act, is not as helpful as it could be. Some argue that the system has not done enough, especially in transferring technology out of government labs.<sup>376</sup> Others argue that the system has the perverse effect of locking up technologies as universities and government laboratories seek to maximize their patent royalties.<sup>377</sup>

There does not appear to be any major movement toward changing federal technology transfer law. However, to facilitate the creation of intangible assets, a review of the federal technology transfer system—what works and what doesn't—may be in order.

## Facilitating Bank Lending

### Policy Actions:

- Undertake a review of the Basel II Accords to better understand their implications for intangible-backed lending
- Review SBA laws and regulations to ensure that SBA loans can be used for the acquisition of intangible assets and that intangible assets can be used as collateral for such loans
- Require SBA to work with its commercial lenders to develop standards on the use of intangible assets as collateral, similar to existing SBA underwriting standards
- Undertake a review of all other federal government business loan programs to ensure that intangible assets are properly treated.

The greatest impact the government has on bank lending is through regulation. As mentioned earlier, the Basel II Capital Accords have established regulations for how banks manage lending risk.<sup>378</sup> However, it is not clear that these standards take into account the type of lending risk associated with intangibles. For example, to recognize collateral as part of a bank's credit risk mitigation (CRM) techniques, the bank must have "clear and robust procedures for the timely liquidation of collateral to ensure observation of any legal conditions required for declaring the default of the borrower and prompt liquidation of the collateral in the event of default."<sup>379</sup> Terms such as "timely" and "prompt" may be problematic when applied to the liquidation of intangible assets used as collateral.

According to the Comptroller of the Currency, U.S. banks have until April 2011 to make the transition to the new rule and have not yet set hard deadlines the switch over.<sup>380</sup> Thus, there is still time before these standards are fully implemented. A thorough review of the Basel II Accords should be undertaken to better understand their implications for intangible-backed lending.

There are only a few other areas where the government has direct impact on bank lending. One of these is the SBA program for loans to small businesses. As mentioned earlier, of specific relevance are both the 7(a) guaranty loan program and the CDC/504 loan program.

The SBA's treatment of intangibles is uneven. SBA documents recognize intangibles as a class of property, but never clarify their role as an asset.<sup>381</sup> Use of loaned funds for the purchase of intangibles (i.e., buying a patent or signing a licensing agreement) seems to fall outside the permitted activities of SBA guidelines, although purchases of franchises are eligible. Likewise, the use of intangible assets as collateral is uncertain. The National 7(a) Lender Guide specifically includes intangible assets in the prohibition on use of funds for speculative purposes.<sup>382</sup> But the guide says nothing about the use of intangible

assets as collateral. The application for a 504 loan includes a section for balance sheet comments and adjustments for intangibles, but intangibles are not mentioned elsewhere in the document.<sup>383</sup> The SBA standard operating procedure (SOP) for processing requests for financial assistance includes instructions for modifying the balance sheet concerning intangibles and instructions to report the use of loan proceeds to “acquire intangible assets such as licenses or franchises” under the category of “Other Uses of SBA Proceeds” in 7(a) reports.<sup>384</sup> However, there is at least one referenced case where “general intangibles” were used as collateral.<sup>385</sup>

Given this spotty record, the SBA should undertake a review of laws and regulations to ensure that SBA loans can be used for the acquisition of intangible assets and that these intangible assets can be used as collateral for such loans.

Such a review would also present an opportunity for a larger look at the role of intangibles in bank lending. Thus, the SBA should also work with their commercial lenders to develop standards for the use of intangible assets as collateral, similar to existing SBA underwriting standards.

In addition, a review should be undertaken of all other federal government business loan programs to ensure that intangible assets are properly treated.

## **Conclusion**

Intangible assets account for the majority of the value of most firms in the United States. Changes in the economy toward more innovation-based activities signify an even greater importance of intangibles in the mix of corporate assets in the future. The need for financial solutions and policies to open doors for intangible asset monetization is imperative. Innovation requires funding. Historically, companies have only been able to leverage funds based almost solely on their tangible assets. Now more than ever companies need to be able tap into the value of their intangible assets as a source of business capital for critical innovation advancement and long-term business development.

To spur financing, both primary markets for intangibles and secondary capital markets need further development. Some primary markets for select classes of intangibles are well developed (e.g., for books and songs) and others are making strides (e.g., for patents). On the capital markets side, some financial market product innovations have begun to incorporate these assets. However, most intangibles have no capital leverage capability—yet.

Parts of the process, such as licensing, are well understood with regularized processes. In other areas, such as with intangible asset-backed securitization, normalized activities are not defined and modeled. Each deal runs perilously close to having to reinvent the wheel and is susceptible to the often blindly subjective view of the credit analyst, underwriter, and, ultimately, the investor. Capital leveraging areas such as collateralization lie somewhere in the middle, with some routine processes but few distinctly consistent or objective approaches. To realize the promise of intangibles, industry standards and government regulations should be developed that more clearly define the characteristics and values of these assets while fostering standardization of the process.

Numerous actions, both large and small, are required to cause effective change. There is no magic bullet; no single government or industry action will resolve the issues. But policymakers play a key role in promoting the acceptance, use, and dissemination of intangible assets in the market. Areas in need of attention range from patent reform to securities definitions and banking regulations, from perfection and bankruptcy law to accounting techniques, and from technology to tax policy. Industry standards and procedures also need attention, especially in the area of valuation.

Perhaps the single most important step is the recognition that intangible assets are not covered in existing financial structures. Much of our current economic policy and regulatory systems, both public and private, are still set up for the industrial era of buildings, fixed resources, machinery, and other tangible assets. This is not surprising—these are the systems that have evolved over the past few centuries as the industrial revolution unfolded. That evolution has been painful and painstaking. We should not be in a rush to replace the framework based on some ephemeral notion that “everything has changed.”

But while the economy has moved on relatively fluidly, our ability to oversee it has lagged behind. There clearly is something novel about the “new economy.” Intangible assets—knowledge, ideas, skills, relationships, and organization—have taken on greater worth. Monetization of those intangible assets is one step in the process of value creation. As the economy continues to evolve, our policies and structures for monetization need to adapt as well.

The reality is that we are still far from realizing the full promise of intangible monetization. But recognizing, valuing, and utilizing intangible assets in the marketplace are essential components for the continued success of U.S. enterprises and for the economic prosperity of the entire nation.

## **Appendix A. Lists of Intangible Assets According to Different Standards**

### ***a) Financial Accounting Standards Board—SFAS 141***

#### a. Marketing-related intangible assets

- (1) Trademarks, tradenames
- (2) Service marks, collective marks, certification marks
- (3) Trade dress (unique color, shape, or package design)
- (4) Newspaper mastheads
- (5) Internet domain names
- (6) Noncompetition agreements.

#### b. Customer-related intangible assets

- (1) Customer lists
- (2) Order or production backlog
- (3) Customer contracts and related customer relationships
- (4) Noncontractual customer relationships.

#### c. Artistic-related intangible assets

- (1) Plays, operas, ballets
- (2) Books, magazines, newspapers, other literary works
- (3) Musical works such as compositions, song lyrics, advertising jingles
- (4) Pictures, photographs
- (5) Video and audiovisual material, including motion pictures, music videos, television programs.

#### d. Contract-based intangible assets

- (1) Licensing, royalty, standstill agreements
- (2) Advertising, construction, management, service or supply contracts
- (3) Lease agreements
- (4) Construction permits
- (5) Franchise agreements
- (6) Operating and broadcast rights
- (7) Use rights such as drilling, water, air, mineral, timber cutting, and route authorities
- (8) Servicing contracts such as mortgage servicing contracts
- (9) Employment contracts.

#### e. Technology-based intangible assets

- (1) Patented technology
- (2) Computer software and mask works
- (3) Unpatented technology
- (4) Databases, including title plants
- (5) Trade secrets, such as secret formulas, processes, recipes.

**b) AICPA—American Institute of Certified Public Accountants**

Airport gates and slots	Location value
Bank customers, including deposits, loans, trusts, and credit cards	Management contracts
Blueprints	Manual databases
Book libraries	Manuscripts
Brand names	Medical charts and records
Broadcast licenses	Mineral rights
Buy-sell agreements	Musical compositions
Certificates of need	Natural resources
Chemical formulas	Newspaper morgue files
Computer software	Noncompete covenants
Computerized databases	Options, warrants, grants, rights
Contracts	Patent applications
Cooperative agreements	Patents (both product and process)
Copyrights	Patterns
Credit information files	Permits
Customer contracts	Prescription drug files
Customer and client lists	Prizes and awards
Customer relationships	Procedural manuals
Designs and drawings	Production backlogs
Development rights	Product designs
Distribution networks	Property use rights
Distribution rights	Proposals outstanding
Drilling rights	Proprietary computer software
Easements	Proprietary processes
Employment contracts	Proprietary products
Engineering drawings	Proprietary technology
Environmental rights	Publications
Federal Communication Commission licenses	Retail shelf space
Favorable financing	Royalty agreements
Favorable leases	Schematics and diagrams
Film libraries	Securities portfolios
Food flavorings and recipes	Security interests
Franchise agreements	Shareholder agreements
Historical documents	Solicitation rights
Health maintenance organization enrollment lists	Stock and bond instruments
Insurance expirations	Subscription lists
Insurance in force	Supplier contracts
Joint ventures	Technical and specialty libraries
Know-how	Technical documentation
Laboratory notebooks	Technology-sharing agreements
Landing rights	Title plants
Leasehold interests	Trade secrets
Literary works	Trained and assembled workforce
Loan portfolios	Trademarks and trade names
	Training manuals
	Use rights (air, water, and land)

### ***c) Low/Kalafut List of Intangibles to Company Performance***

Jonathan Low and Pam Cohen Kalafut have created a model that links intangibles to company performance.<sup>386</sup> They base their model on the following intangibles that play a role in business:

- Management/Leadership
  - Strategy Execution
  - Communication
  - Transparency.
- Organization
  - Technology and Processes
  - Human Capital
  - Workplace, Organization, and Culture
  - Innovation
  - Intellectual Capital
  - Adaptability.
- Relationships
  - Brand Equity
  - Reputation
  - Alliances and Networks.

## **Appendix B. Special Purpose Entities (SPEs)**

At the heart of securitization is the Special Purpose Entity (SPE), also known as the Special Purpose Vehicle (SPV). The SPE acts to segregate an asset class from the parent business to protect it from claims that could undermine the priority claim of the investors in the securitization. It acts as a separate owner of the asset rights—an independent third party to the transaction—that either holds the asset claims as collateral against the issued asset security or forwards the asset ownership rights to investors through the securitization process. Securitizations can use two SPEs—one to segregate asset claims from the parent company, and another to then purchase those assets and issue them in a securitized offering.

The SPE effectively purchases the assets from the parent company, usually using the funds from the securitization offering to do so. It may then lease back the usage rights of the assets to the parent company. Since the sale of the assets demonstrates an actual transfer of ownership rights, and often at market rates for the asset, liability or credit default claims on the parent company cannot attach legal claims on the assets post transfer. From a securitization investor standpoint, this is an absolutely essential component in their investment in the security. They have a protected priority claim on the asset that collateralizes their investment, even if the parent company itself were to go bankrupt.

The company that uses securitization to raise capital can also find significant advantages to the SPE asset transfer. First, the securitization stands on the merits of its asset class alone and can be held separate and unaccountable from any credit quality restraints of the issuing company. Capital costs in securitizations tend to be significantly lower, likely due in part to the reduced risk of default and liability claims. In fact, securitized assets have distinct advantages over equity claims on an entire company that cannot offer such absolute protection to investors. Furthermore, the issuing company can protect some of its most vital or provocative assets through securitization, using the SPE as both a capital generating tool and as a useful insurance policy.

In the article *Death of Liability*, Lynn LoPucki states:<sup>387</sup>

Asset securitization is both a substitute for borrowing and a powerful new strategy for judgment proofing. Like the parent-subsidary strategy, the asset securitization strategy puts ownership of the company's valuable assets in an entity separate from the one that is at risk for liability. The advantage ... is virtual elimination of the risk that the courts will disregard the entity that holds the assets. Though the bankruptcy remote vehicle is created pursuant to the debtor's plan, it is not only separately incorporated but it is at all times controlled by arms-length investors. What is perhaps more important, by the times the issues are litigated, the bankruptcy-remote vehicles may be publicly held with hundreds or thousands of innocent investors. Considering that even the most provocative division of a company into separate asset-holding and liability-incurring entities—one with 100 percent congruity of ownership—is likely to be honored by the courts, it seems unlikely that the courts will consolidate the bankruptcy-remote vehicles created in

asset securitizations, which typically have no congruity of ownership with the debtor.

[S]tocks and bonds are the most junior claims against the assets of a company. They are defeated by anyone with a direct claim against the assets. The claims of third-party owners, such as those created in asset securitization, are the most senior claims. Perhaps the principal advantage of third-party ownership of assets over mere ownership of the company is that third-party owners of assets have priority over liability claims while stockholders do not.

Ideally, an SPE offers investors both priority (a superior claim in the ranking of claims against an asset) and perfection (legal protection to for asset ownership) in their claims on the securitized asset. Presently, these rights are covered by state laws, often in the state where the asset itself is located (or the parent business for intangible assets). However, the fallout from Enron’s scurrilous use of SPEs has garnered intense focus from federal lawmakers intent on corralling potential abuses of the device as a means to unscrupulously harm company employees or investors. The off-balance-sheet nature of SPEs coupled with their cocooning effect for company assets against creditor claims, make them susceptible to future legislative restrictions. Recent revisions to Article 9 of the Uniform Commercial Code (UCC) offer promise for the continued, if not enhanced, protection for parties in SPEs, broadening the scope to “virtually all securitized assets” and ensuring clear legal guidelines to support the transfer of asset claims from the issuing company to the SPE.<sup>388</sup>

However, legal claims on SPE assets are still evolving. Since these transactions are covered by state courts, geographic variability in court decisions could pose problems for securitization. Furthermore, intangible assets will likely create unique problems as securitizations begin using more creative asset offerings. Determining the court jurisdiction for intangible assets could be contested, for instance. Plus, since many intangible asset classes have never been legally reviewed for ownership rights in securitizations, there remains the possibility that courts could rule on them with separate bias. Nonetheless, the scope of asset protection with securitization seems to be broadening not retracting as the revisions of UCC Article 9 illustrate. Diligent and appropriate use of the SPE mechanism should help remove lawmakers’ doubts that it is a vital tool for corporate, and thus economic, growth.

## **Appendix C. Possible Policy-Related Actions**

### **Identification and disclosure:**

- Reinststate the joint FASB and IASB research project on expanded disclosure guidelines for intangibles.
- Review and revise SEC definitions of asset-backed securities to include intangible asset classes.
- Clearly designate nonfinancial measures for evaluating intangibles in MD&A portion of financial statements.
- Create a safe harbor in financial statements for corporate reporting of intangible assets.
- Modify Sarbanes–Oxley so that there is a clear directive for assessments of the “material” intangible assets.
- Utilize the stock exchanges (and the proposed Intellectual Property Exchange in Chicago) as initial testing grounds for increased intangible disclosure by requiring listed members to make additional disclosures that capture intangible metrics.
- Create an intangibles reporting and valuation guideline association/group, similar to the International Private Equity and Venture Capital Valuation Group and the Enhanced Business Reporting Consortium.

### **Valuation standards:**

- Convene a special FASB/SEC task force on valuation.
- Support and encourage increased research on valuation standards.
- Work with the International Standards Organization efforts to set brand and patent valuation standards to ensure that relevant expertise and stakeholders are engaged.

**Regularizing the market:**

- Explore the creation of an Intangibles Mortgage Corporation (Ida Mae) to regularize the intangibles-backed securities market, either as a limited government-sponsored enterprise GSE or as an independent organization.
- Review all security regulations to determine their applicability to intangibles.
- Review federal and state insurance laws and regulations to promote the development of financial sound insurance coverage of intangibles.

**Market oversight:**

- Work with credit rating agencies and monoline insurers to provide a transparent process for rating intangible asset values.
- Coordinate with ongoing efforts at market reform, such as the President's Working Group on Financial Markets, to ensure that intangible-backed assets are properly included.

**Perfection:**

- Create a national central registry of intellectual property security interests.

**Tax incentives:**

- Create a permanent knowledge tax credit that would increase investments in intangibles.
- Explore lowering the tax rate on intangible asset royalties, in conjunction with stricter regulations on international transfer pricing mechanisms and cost-sharing arrangements and on passive investment companies.
- Review the impact that expensing versus depreciation has on the investment in intangibles, including a review of the impact of the 2002 IRS regulations, Capitalizing Intangible Assets.
- Undertake a comprehensive review of the tax code as it relates to intangibles.

**Patent reform:**

- Create a pre-review pilot program at U.S. PTO.
- Continue other efforts at the P.T.O. to increase patent quality in consensus with relevant stakeholders.
- Enact patent reform legislation.
- Undertake a review of patent litigation and patent liability insurance.
- Review federal and state technology policies to encourage promotion of patent pools.

**Spurring licensing:**

- Undertake a review how the federal technology transfer system, including Bayh–Dole, does or does not facilitate the creation of intangible assets.

**Facilitating lending:**

- Undertake a review of the Basel II Accords to better understand their implications for intangible-backed lending.
- Review SBA laws and regulations to ensure that SBA loans can be used for the acquisition of intangible assets and that intangible assets can be used as collateral for such loans.
- Require SBA to work with its commercial lenders to develop standards for the use of intangible assets as collateral, similar to existing SBA underwriting standards.
- Undertake a review of all other federal government business loan programs to ensure that intangible assets are properly treated.

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<sup>81</sup> *Lanco, Inc. v. Director, Division of Taxation* (Oct 2006).

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<sup>82</sup> *Tax Comm’r of the State of W. Va. v. MBNA America Bank N.A.* (Nov. 21, 2006).

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<sup>83</sup> Mazerov, M. *Closing Three Common Corporate Income Tax Loopholes Could Raise Additional Revenue for Many States*. Center on Budget and Policy Priorities, Washington, D.C., May 23, 2003.

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<sup>84</sup> See Mullins, B. *Music to Songwriters’ Ears: Lower Taxes*. *Wall Street Journal*, Nov. 29, 2005.

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<sup>85</sup> Byrne, op. cit.

<sup>86</sup> *Constitution of the United States of America*, Article I, Section 8.

<http://www.law.cornell.edu/constitution/constitution.articlei.html#section8>

<sup>87</sup> See <http://www.thomsonscientific.com/support/patents/patinf/patentfaqs/history>.

<sup>88</sup> FindLaw. *Clause 8, Copyrights and Patents*.

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<sup>89</sup> *Manual of Patent Examining Procedure, Appendix L: Patent Laws*. United States Patent and Trademark Office, August 2006.

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<sup>90</sup> Note that the issue of remedies is the subject of current discussion. Various pieces of legislation have been proposed to modify the nature and severity of the remedies. In

addition, a number of recent Supreme Court cases have changed important features, such as ending mandatory injunction.

<sup>91</sup> The specifics of this clause were modified by a recent Supreme Court case, *Microsoft Corp. v. ATT Corp.* (April 30, 2007), No. 05–1056.  
<http://www.supremecourtus.gov/opinions/06pdf/05-1056.pdf>

<sup>92</sup> See *USTR Focus on Intellectual Property and Innovation*. Office of the United States Trade Representative (USTR).  
[http://www.ustr.gov/Trade\\_Sectors/Intellectual\\_Property/Section\\_Index.html](http://www.ustr.gov/Trade_Sectors/Intellectual_Property/Section_Index.html)

<sup>93</sup> Kanter, J., and G. Rivlin. WTO Gives Antigua Right to Violate U.S. Copyrights in Gambling Dispute. *International Herald Tribune*, December 21, 2007.  
<http://www.ihf.com/articles/2007/12/21/business/wto.php>

<sup>94</sup> BitLaw. *PCT Patents and Other International Patents*.  
<http://www.bitlaw.com/patent/international.html>

<sup>95</sup> BitLaw. *Patent Cooperation Treaty*.  
<http://www.bitlaw.com/source/treaties/pct.html>

<sup>96</sup> For example, Jaffe, A. B., and J. Lerner. *Innovation and Its Discontents: How Our Broken Patent System Is Endangering Innovation and Progress, and What to Do About It*. Princeton University Press, Princeton, N.J., 2004.

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<http://www.copyright.gov/title17/92chap1.html#102>

<sup>99</sup> *Copyright Office Basics*. Circular 1., U.S. Copyright Office, The Library of Congress, July 2006.  
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<sup>104</sup> *International Copyright Relations of the United States*. Circular 38a. U.S. Copyright Office, The Library of Congress, June 2004.

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<sup>105</sup> *What Is a Trademark or Service Mark?* United States Patent and Trademark Office, November 2004.

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<sup>106</sup> See <http://en.wikipedia.org/wiki/Trademark>.

<sup>107</sup> *Trademark Manual of Examination Procedures (TMEP)*, 4th ed. United States Patent and Trademark Office, April 29, 2005.

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<sup>109</sup> Biswas, S. J. *The Economic Espionage Act of 1996*. Myers Bigel Sibley & Sajoves, P.A., Raleigh, N.C.

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<sup>110</sup> *Intellectual Property Cases*, Computer Crime & Intellectual Property Section, United States Department of Justice.

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<sup>122</sup> *Antitrust Guidelines for the Licensing of Intellectual Property*. U.S. Department of Justice and the Federal Trade Commission, April 6, 1995.

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<sup>123</sup> Lagace, M. The Power of the Noncompete Clause: A Q&A with Matt Marx. *HBS Working Knowledge*, Feb. 26, 2007.  
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<sup>124</sup> Klingshirn, N. E. Noncompete Agreement FAQs. *My Employment Lawyer*.  
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<sup>125</sup> Marx, M., D. Strumsky, and L. Fleming. *Noncompetes and Inventor Mobility: Specialists, Stars, and the Michigan Experiment*. HBS Working Paper 07–042, Harvard Business School, January 2007.  
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A security interest is a property interest created by agreement or by operation of law over assets to secure the performance of an obligation (usually but not always the payment of a debt)[,] which gives the beneficiary of the security interest certain preferential rights in relation to the assets. The rights vary according to the type of security interest, but in most cases (and in most countries) the main rights and purpose of the security interest is to allow the holder to seize, and usually sell, the property to discharge the debt that the security interest secures.  
[http://en.wikipedia.org/wiki/Security\\_interest](http://en.wikipedia.org/wiki/Security_interest)

<sup>127</sup> See <http://www.sos.state.tx.us/ucc/index.shtml>.

<sup>128</sup> Kavanaugh, M. W., and F. Bahar. Uniform Commercial Code Revised Article 9: A Brave New World? *Points & Authorities*, Buchalter, Nemer, Fields & Younger, Fall 2001.

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<sup>135</sup> *Girton, Oakes & Burger, Inc. v. William Sayavich*. June 22, 2005.  
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<sup>136</sup> *Morrow, et al. v. Microsoft*, United States Court of Appeals for the Federal Circuit, 2006–1512, –1518, –1537.  
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<sup>138</sup> For examples, see: Fitch: Regulation AB A Positive, But Not Without Growing Pains for U.S. SF Issuers. *Fitch Ratings*, April 19, 2005.  
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“As a result of some of the unique risks, IP securitizations often necessitate substantial due diligence in comparison to standard ABS deals. . . . While it is true that each IP deal contains risks specific to the transaction, we believe that as volumes grow, rating agencies, bankers, lawyers, and investors will become comfortable with the asset class. As such, more standard structures will begin to emerge for each of the sectors (if they haven’t done so already). Furthermore, past issuers will begin to experience economies as they add follow-on transactions to their existing securitization trusts.”

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<sup>317</sup> Securities and Exchange Commission. *Conditions for Use of Non-GAAP Financial Measures*, op. cit.

<sup>318</sup> *The Shifting Paradigm in Business Reporting and Oversight*. American Institute of Certified Public Accountants (AICPA), Assurance Services Executive Committee, April 2008, p. 28.

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“As intellectual assets reporting guidelines have been mainly adopted by non-listed SMEs, financial market considerations have not played a major role but financing conditions nevertheless have been important. Benefits have been reported by some companies in their relationships with creditors. In Germany, one company experienced a decrease in its interest rate which allowed the company to save several hundred thousand euros as well as an upgrade of its rating to ‘Investment Grade Rating.’ In Japan, another company received a higher evaluation for its borrowing by a regional bank after having explained the substance of its IT security-related business in its IABM report in March 2006. Furthermore, Japanese companies asking for funding for R&D projects to NEDO (the R&D funding agency) are now required to present IABM-based reports. These are admittedly a tiny sample from which to draw conclusions but may nevertheless be indicative of future developments.”

See *Intellectual Assets And Value Creation: Implications for Corporate Reporting*. Organization for Economic Cooperation and Development, Dec. 10, 2006, p. 20.

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<sup>329</sup> SEC. Corporation Finance: Sample Letter Sent to Public Companies on MD&A Disclosure Regarding the Application of SFAS 157 (Fair Value Measurements). March 2008. <http://www.sec.gov/divisions/corpfin/guidance/fairvalueltr0308.htm>

<sup>330</sup> *Building a New IP Marketplace*. A Global Innovation Outlook 2.0 Report, IBM, 2006. [http://domino.research.ibm.com/comm/www\\_innovate.nsf/images/gio-ip/\\$FILE/building\\_a\\_new\\_ip\\_marketplace-report.pdf](http://domino.research.ibm.com/comm/www_innovate.nsf/images/gio-ip/$FILE/building_a_new_ip_marketplace-report.pdf)

<sup>331</sup> German Institute for Standardization (Deutsches Institut für Normung). ISO Project Committee for Brand Valuation. [http://www.din.de/cmd?level=tpl-  
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