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The Challenge of Valuing Intellectual Property Assets

Jody C. Bishop*

¶1 The collapse of Enron Corporation and WorldCom in 2001 and 2002, respectively, resulted in a wave of shareholder litigation and prompted sweeping statutory and regulatory reforms. This series of events lead to the enactment of the Sarbanes-Oxley Act (“SOA”),¹ which is designed to increase accountability of a company’s executive officers, directors, auditors, and counsel. For example, under the SOA each periodic report filed by a public company must include a certification by the company’s chief executive officer and chief financial officer (or the equivalent). This certification is used to indicate that the report fully complies with the periodic reporting requirements of the Securities Exchange Act of 1934, as amended. Additionally, the officers must certify that the information fairly presents, in all material respects, the company’s financial condition and result of operations.²

¶2 With increased skepticism of companies’ financial conditions and the promulgation of stricter laws and regulations, such as the certification requirements of Sarbanes-Oxley, the value attributed to a company’s assets is more closely scrutinized. One area of a

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² Section 302(a) of Sarbanes-Oxley provides:

Regulations Required. - - The Commission shall, by rule, require, for each company filing periodic reports under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m, 78o(d)), that the principal executive officer or officers and the principal financial officer or officers, or persons performing similar functions, certify in each annual or quarterly report filed or submitted under either such section of such Act that —

(1) the signing officer has reviewed the report;
(2) based on the officer’s knowledge, the report does not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements made, in light of the circumstances under which such statements were made, not misleading;
(3) based on such officer’s knowledge, the financial statements, and other financial information included in the report, fairly present in all material respects the financial condition and results of operations of the issuer as of, and for, the periods presented in the report;
(4) the signing officers —

(A) are responsible for establishing and maintaining internal controls;
(B) have designed such internal controls to ensure that material information relating to the issuer and its consolidated subsidiaries is made known to such officers by others within those entities, particularly during the period in which the periodic reports are being prepared;
(C) have evaluated the effectiveness of the issuer’s internal controls as of a date within 90 days prior to the report; and
(D) have presented in the report their conclusions about the effectiveness of their internal controls based on their evaluation as of that date.
company’s assets that is often difficult to value is its intellectual property (“IP”) assets. How can a CEO and/or CFO of a public company feel comfortable certifying a report that attributes value to the company’s IP assets? That is, how can a CEO and/or CFO feel comfortable that the value attributed to the company’s IP assets fairly presents the company’s financial condition with regard to those assets?

Valuing IP assets requires that a company: (1) identify its IP assets, and (2) assign a justifiable value to the identified IP assets, both of which require careful consideration. A company may possess various types of assets that qualify as IP. By its very nature, IP comprises intangible assets that are not as readily identifiable as a company's tangible assets (e.g., buildings, equipment, etc.). In some instances, IP rights are embodied in a granting document, such as an issued patent or a registered trademark. In those instances, the IP assets may be more easily identified by the company. For instance, companies are typically able to identify such IP assets as issued patents assigned to the company, registered trademarks owned by the company, and registered copyrights owned by the company. Also, IP rights that are licensed or purchased from a third-party are generally identifiable to the company because of the existence of a granting document (e.g., contract) between the company and the third-party.

Other assets that may qualify as a company's IP may be easily overlooked. Consider the following examples of potential IP assets that a company may possess: (1) information maintained in notebooks and/or stored on a computer by engineers or other employees, (2) a pending patent application assigned to the company, (3) an invention disclosure from an engineer to company decision-makers for consideration as to whether to pursue patent protection, and (4) proprietary software source code developed in-house.

Certain types of IP may not be embodied in a granting document. Indeed, certain types of intellectual property owned by a company may not even confer any enforceable rights. For instance, a pending patent application assigned to a company confers no enforceable rights to the company until the patent issues, if ever. Thus, the pending patent application is an asset representing a potentially enforceable right that may be conferred to the company in the future.

Given that a pending patent application confers no enforceable rights, is the pending patent application an “asset” of the company? Most would likely agree that a company’s pending patent application is an asset, even though it does not confer any enforceable rights. The pending patent application not only provides the company with the present value of being able to mark its products that include features encompassed by the patent application with “Patent Pending,” but it also provides the company with potentially enforceable rights in the future, should the patent issue. Further, if the company were to be acquired by another, some value would certainly be attributed to its pending patent applications as company “assets” in determining a fair purchase price for acquiring the company.

Consider now information that is maintained in a laboratory notebook by an engineer of the company. Often engineers record their thoughts in notebooks. Indeed, many companies encourage this practice because of the notebooks’ evidentiary value should an issue of inventorship later arise. The notebooks are generally considered company property and remain with the company if the engineer’s employment is terminated. The notebook itself likely confers no enforceable rights to the company (although trade secrets may be described in the notebook). Typically, the officers of a
Company are not aware of the information contained in an engineer’s notebook. Accordingly, while a potentially valuable invention may be described in the notebook, only the engineer who authored the notebook may be aware of the information included therein.

Thus, the question arises: is the engineer’s laboratory notebook an “asset” of the company? If a company does not permit its employees to take information with them when they depart, it is likely because maintaining such information is of value to the company and may therefore qualify as an asset. However, valuing this type of asset is problematic because, as mentioned above, officers of the company may not even be aware of the information it includes. Further, if the company were to be acquired, no value may be attributed to the engineer’s notebook in determining a fair purchase price for acquiring the company because the notebook’s content may be largely unknown. Consequently, a company may possess a vast amount of IP, some of which is readily identifiable and others of which are difficult to identify. In such a situation, how can the company’s officers be confident that they are aware of all of the company’s IP assets?

One solution is to perform an IP audit. A comprehensive IP audit generally includes an evaluation of a company’s assets to identify its IP assets that it possesses. For instance, an IP audit identifies such IP assets as the company’s issued patents, registered trademarks, registered copyrights, and trade secrets. Such an audit also identifies IP assets acquired or licensed from third-parties. Further, an IP audit identifies IP possessed by the company that does not confer presently enforceable rights, such as pending patent and trademark applications and inventions disclosed to the company’s decision-making personnel for which a patent application has not been filed. The IP audit may further evaluate the company’s process of collecting IP assets. For instance, a company may have procedures in place to encourage its employees to disclose their inventions to the company. As mentioned above, information included in an engineer’s laboratory notebook may be unknown to the company’s decision-makers, and thus procedures for encouraging engineers to disclose valuable information to the decision-makers may be important for assuring that the company is aware of its potential IP assets.

An IP audit may also include an evaluation of the procedures in place at the company for maintaining the company’s IP assets. For example, most countries require companies to pay periodic fees to maintain patents in force. Similarly, intellectual property rights licensed from third-parties may require periodic payments to be made to the third-parties. Thus, an IP audit may evaluate the company’s procedures for ensuring payments for maintaining the company’s IP assets in force. Further, employee and consultant agreements may be evaluated to ensure that the IP developed for the company is owned by the company and to ensure that the company has safeguards in place to prevent unauthorized disclosure of proprietary information (e.g., trade secrets).

Additionally, an IP audit may include an evaluation of the company’s procedures for avoiding unauthorized use of the intellectual property rights of others. For example, the IP audit may include a review of the company’s process for introducing new products and services, such as the company’s procedures for assuring that valid intellectual property rights of others are not infringed by an introduced product or service.

Companies typically conduct annual audits of their financial status, and public companies include the auditor’s statement of their financial condition in annual shareholder reports. Similarly, an annual IP audit is an advisable aspect of assessing the
company’s financial status. That is, an annual IP audit may serve to assure the company’s officers that the company’s IP assets have likely been identified for assessing the company’s financial condition. Several texts that address various aspects of performing effective IP audits in greater detail are available.\(^3\)

Once a company identifies its IP assets, it becomes desirable to assign a justifiable value to those assets. One study reported that while in 1978 only twenty percent of corporate assets were intangible assets, and eighty percent of corporate assets were tangible assets, by 1997 the relative value of tangible and intangible assets had practically reversed, with seventy-three percent of corporate assets being intangible assets.\(^4\) Thus, for many companies, the valuation of their IP assets is a critical factor in determining their financial condition.

Valuing IP assets is often a difficult task because their true value may not be readily apparent. It is often desirable to tie the value of an IP asset to income directly attributable to that asset, if determinable. For instance, the value of a patent may be determined by the revenue stream derived from licensing the patent rights to others. However, is an unlicensed patent worthless? It does provide a negative right that is enforceable by the owner. The company has spent money acquiring this patent right and pays fees to maintain the patent right — so, can the company justify acquiring and maintaining a patent that it deems to be of no value?

Of course, the value of an IP asset may not be recognized in income received by the company. Indeed, the full value of an IP asset is likely never recognized in income because much of the asset’s value resides in the negative right to prevent others from doing something they would otherwise be permitted to do. Thus, a patent may have great value even if the company does not license the patent or enforce the patent against any third-party because the company possesses “the right” to prevent others from practicing the patented invention. For example, potential competitors may decide not to embark on a field encompassed by the company’s patent rights. In such a situation, while the company may not recognize revenue by way of a license, it may achieve greater market share as a result of the patent deterring others from offering a competitive product or service. Further, a company’s patent portfolio may serve as a defensive mechanism that makes third-parties cautious about enforcing their intellectual property rights against the company for fear of retaliation by the company with its patent portfolio. In this regard, the company’s patent portfolio may have great value in allowing the company to proceed with its business undisturbed, without threats of infringement that might otherwise be raised by third-parties. Accordingly, the true value of intellectual property assets is generally difficult to measure, and even though accepted techniques are available for assigning a value to those assets (as discussed further below), the full value of intellectual property assets is likely not captured with those valuation techniques.

Valuing an IP asset is further complicated because such value is generally not stagnant. Rather, the value of an IP asset often changes over time. Consequently, a company should periodically (e.g., annually) re-assess the value of its IP assets. To illustrate the dynamic nature of an IP asset, consider the following examples. Suppose

\(^3\) See, e.g., BUSINESS LAWS, INC., CORPORATE COUNSEL’S GUIDE TO INTELLECTUAL PROPERTY AUDITS (1996).

“Company A” invents a new device for slicing bread that allows the bread to be sliced immediately after being baked at a time when the bread is too soft for proper slicing by traditional bread slicers. Four scenarios are presented below to demonstrate situations in which the value attributed to Company A’s intellectual property in its new bread slicer changes over time.

**Scenario 1:** Company A files a patent application for its invention with very broad claims. Thinking this invention is the greatest thing since sliced bread, Company A assigns substantial value to the pending patent application. However, during prosecution of the patent application, a prior reference is discovered that discloses the company’s bread slicer and renders the “invention” unpatentable. Thus, the patent application loses its value because the application will not issue as a patent that provides enforceable rights to Company A. However, there may still be IP value remaining in Company A’s bread slicer. Suppose, for instance, that Company A is a bakery and its profits have skyrocketed since being able to offer freshly sliced bread. Further, suppose that the patent application was not published and the company has not otherwise disclosed the bread slicer, the bread slicer may have value as a trade secret of Company A.

**Scenario 2:** Company A files a patent application on its bread slicer invention with very broad claims. Again thinking that the invention is the greatest thing since sliced bread, Company A assigns great value to the patent application. However, during prosecution of the patent application, the claims are greatly narrowed for various reasons, and a patent will issue with much narrower claims than originally anticipated. That is, the issued patent provides a much narrower scope of protection than was initially anticipated by Company A when filing the patent application.

The issued patent should, in theory, be more valuable than was the pending patent application because the company now has actual, enforceable rights whereas the pending patent application provided no enforceable rights. However, the claims of the issued patent are much narrower than was anticipated when valuing the patent application. Thus, it may be difficult to determine the proper value to assign to the issued patent.

**Scenario 3:** Company A files a patent application on its bread slicer invention with very broad claims, and Company A assigns great value to the patent application. The patent issues with the very broad claims. However, the invention becomes of little interest to competitors. No third-parties are interested in licensing the patent rights. Thus, the patent produces no income stream for Company A. An infringer is identified by Company A, but it is deemed by corporate management to be unworthy of the attorney expenses and/or risk of provoking return action to take action enforcing the patent against the infringer. If the patent is not worth enforcing, is it worthless? As mentioned above, the patent may have value beyond any income stream that it generates through licensing and beyond its enforcement against infringers. For instance, the patent may serve as a deterrent to make third-parties cautious about taking action against Company A, regardless if it is actually enforced.

**Scenario 4:** Company A files a patent application on its bread slicer invention with very broad claims. Again thinking that the invention is the greatest thing since sliced bread, Company A assigns great value to the patent application. The patent issues with the very broad claims. However, by the time the patent issues or shortly thereafter, the invention has become “stale”. That is, the next greatest bread slicer, which is not covered by the claims of Company A’s patent, has swept the market, and virtually no one is
interested in the patent rights owned by Company A. In fact, Company A may seek to license the next greatest bread slicer from a third-party in order to keep pace with its competition. Alternatively, in some situations, the issued patent rights may be of interest to others only after a relatively long period of time (e.g., 12 years after the patent issues). Thus, Company A’s patent rights may, in actuality, be of relatively little value for many years, and may then become very valuable.

In each of the above scenarios, the value of Company A’s intellectual property rights in its bread slicer changed over time. Thus, an IP valuation process should be ongoing to recognize changes in the value of a company’s IP asset. Recognizing the above difficulties in valuing intellectual property, economists have traditionally utilized at least one of the following methodologies to derive a value for an IP asset:

1. **Market Approach.** The Market Approach measures the present value of future benefits by obtaining a consensus of what others in the marketplace have judged the value to be. This approach is similar to how comparable properties are used in real estate valuations, wherein the IP asset is compared to similar IP assets of others and valued accordingly.

2. **Cost Approach.** The Cost Approach seeks to measure the future benefits of ownership by quantifying the amount of money that would be required to replace the future service capability of the subject property (i.e., “cost of replacement” of the IP asset). The assumption behind this approach is that the price of acquiring the IP asset is commensurate with the economic value of the service that the asset provides during its enforceable lifetime. While this approach is certainly not always accurate, it may average out over a relatively large portfolio of IP assets.

3. **Income Approach.** This approach focuses on the income-producing capability of the IP asset. The underlying theory is that the value of the IP asset can be measured by the present worth of the net economic benefit (cash receipts less cash outlays) to be received over the enforceable life of the asset.

4. **Twenty-five Percent (25%) Rule.** This is a technique commonly used in the valuation of patents and technology. With this technique, the IP asset’s value is calculated as twenty-five percent of the gross profit, before taxes, from the companies’ operation in which the asset is used.5

While each of the above valuation techniques likely fail to capture the full value of an IP asset, its use should provide comfort to a company’s officers that they have reasonably valued the company’s IP assets in assessing the company’s financial condition. As the reporting of a company’s financial condition continues to be more closely scrutinized, the valuation of IP assets becomes increasingly important, particularly if much of the company’s financial value resides in its IP assets.

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5 Many texts are available on the topic of valuing intellectual property that provide greater detail about the above valuation techniques, as well as other accepted techniques for valuing intellectual property. See, e.g., LICENSING EXECUTIVES SOCIETY INTERNATIONAL, INC., THE LESI GUIDE TO LICENSING BEST PRACTICES: STRATEGIC ISSUES AND CONTEMPORARY REALITIES (Robert Goldscheider ed., 2002); GREGORY J. BATTERSBY & CHARLES W. GRIMES, LICENSING ROYALTY RATES (2002).
Accordingly, companies are well-advised to develop a strategy for periodically identifying and valuing their IP.