### Intangible Assets

## Innovative Financing for Innovation

For innovative companies to have adequate access to capital, accounting and lending standards must be updated to accurately assess the value of intangible assets such as intellectual property and other forms of know-how.

inding funding for a new business or idea is almost always challenging. With the recent near-collapse of the financial system, however, funding innovation is even more difficult. Credit to businesses has tightened dramatically. The market for initial public offerings is moribund, and venture capital has been reduced to a trickle. As a result, the "valley of death" between a promising idea and a marketable product appears to be even more of an unbridgeable chasm. For many innovative companies, funding to move from a promising new concept to commercialization is simply not there.

One sign of hope is the emerging practice of providing funding to companies on the basis of their intellectual property (IP) and other intangible assets. Although IP, effective management, worker know-how, and business methods are widely recognized for their role in propelling the growth of the U.S. economy, the country is still largely failing to

acknowledge the real value of these intangible assets and to provide innovative companies with the funding they need to capitalize on them.

In the United States, more than \$1 trillion annually is invested in the creation of intangible assets, and in 2005 their total value was estimated at \$9.2 trillion. However, only a portion of that value shows up in company financial reports. Likewise, intangible assets rarely merit consideration in the financial system. As a result, companies are unable to obtain the capital that they could use for business innovation and expansion.

Currently, companies can raise money based on their physical and financial assets. Such assets can be easily bought and sold, borrowed against, and used to back other financial instruments. They provide companies with a source of the investment funding needed for the U.S. economy, allowing it to grow and prosper.

In contrast, the \$9.2 trillion in intangible assets is largely hidden and therefore unavailable for financing purposes. A

huge opportunity cost is imposed on the U.S. economy when such a large source of potential financing is locked up. Because intangible assets are not generally available as a source of investment and risk capital, innovative companies may face higher capital costs or even a dearth of capital to fund new ideas. Unable to use their intangible assets as a financial tool, prospective borrowers face a system that does not understand their true revenue potential and is unable to judge operational risks appropriately. New ideas never gain traction or remain unexplored or undeveloped. Economic potential goes untapped and is therefore wasted.

### Rays of hope

The picture is not entirely gloomy. As industry has invested capital in R&D to create new technology and advance other creative activities, a niche market of firms specializing in intangibles-based financing is springing up. Some intangible assets (traditional IP consisting of patents, trademarks, and copyrights) have been used in sale, leasing, equity, equity-debt, debt, and sale-leaseback transactions to finance the next round of innovation.

The easiest way for companies to raise funds using their IP is through sales or licensing. In recent years, we have seen the emergence of an entire marketplace devoted to IP, including public auctions run by ICAP OceanTomo. Numerous patent brokers and Web-based marketplaces augment the vast network of technology transfer offices that seek to sell or license IP. The sale of IP creates upfront cash for a company, whereas licensing creates a future revenue stream. The difference is important if one is trying to fund the next generation of R&D and needs that upfront cash.

This is where the financial system comes in. Financing is the process of granting a security interest (ownership in case of default) in an asset in exchange for capital. The standard method is through traditional debt financing, in which the asset is pledged as collateral, and revenue streams are used to pay off the loan. For example, in 1884, Lewis Waterman borrowed \$5,000 backed by his fountain pen patent to start his business. However, it remains rare and difficult to use intangible assets in this way. More likely, intangible assets and IP will be, knowingly or unknowingly, wrapped into an overall loan package.

The newer phenomenon of securitization—a variation on the long-standing practice of securitizing mortgages and other consumer debt—is another way of obtaining financing using IP. Known as royalty interest securitizations, these deals are backed by an existing royalty stream. In this case, the IP is sold to a holding company that pays for it by issuing bonds backed by the IP's revenues. The IP owner gets the upfront cash, and the bond holders are paid off over time with the royalties.

In a variation known as revenue interest securitization, no cash flow has yet been derived from an existing license or royalty agreement. The investor is willing to step into the process early to fund commercialization with the expectation that future licensing and product sales will generate revenue. In such cases, the investor may require an equity position as well. The deal might also be structured to ramp up funding when the company meets certain benchmarks; this is especially true in health care, where there are well-established regulatory and commercial milestones.

According to published reports, deals such as these have increased dramatically in recent years. In 2000, two publicly announced deals (one royalty-interest transaction and one revenue-interest transaction) totaled \$145 million in investments. Contrast that with the 2007–2008 period, when there were 27 publicly announced transactions (19 royalty-interest transactions, five revenue-interest transactions, and three hybrid transactions using multiple financing techniques, including royalty financing) totaling \$3.3 billion.

A set of private equity firms also exists that targets investments in companies with a critical focus on IP and intangible assets. These firms are not necessarily targeting raw or undeveloped IP assets for the purpose of monetizing the IP itself through licensing. Rather, they are looking for early-stage or startup companies with integral IP assets for the companies' intended markets. In essence, these firms screen their deals by looking for critical IP assets and the overall cash flow the companies generate. These models often use a hybrid approach to equity investing similar to the venture debt market.

### Why it is so hard

Given these examples, why hasn't IP-backed financing made its way into the financial mainstream? The answer is simple: Many lenders and investors still do not feel comfortable with these assets. They question how the assets should be accurately valued and financially projected.

Financial markets use a number of factors to determine the suitability of an asset, including valuation, asset recognition (accounting), separability, transferability, risk, and liquidity. To effectively use IP and intangible assets in the financial system, quantifiable metrics of their characteristics must be available so that financial markets can calculate those assets' behavior over time. The markets often need to replicate the past performance of the asset in question or compare it with another like asset or set of assets that acts in predictable ways. Although many complex models

















BERND AND HILLA BECHER, Loomis Coal Breaker/Wilkes-Barre, Pennsylvania, Gelatin silver print, 12 x 16 inches, 1974.

serve to support valuation estimates in the market today, there is no one standard model of assessing intangibles.

Similarly, asset recognition for accounting purposes remains a hurdle. IP and other intangibles are still not considered on the balance sheet or given due credit for playing a vital role on the income statement. According to generally accepted accounting practices (also known as GAAPs), only intangibles purchased from outside the company can be included in a company's financial statement. Internally generated intangibles are specifically excluded. Thus, a patent acquired by buying another company is counted on the financial books, whereas a patent on technology developed in house is not.

Separability and transferability are also issues, even with formal assets such as patents, copyrights, and trademarks. Although these assets can be separated from a company and transferred to new owners, even the most straightforward form of licensing sometimes requires a side agreement on the transfer of know-how. Likewise, in the secu-

ritization of brands and trademarks, the management and servicing agreement is a key feature, even with a steady royalty stream to underpin the value.

The perceptions of risk (in some cases exacerbated by actual events, such as the subprime mortgage meltdown) have also greatly hampered the use of intangibles in capital markets. The thinness of the market creates a lack of information that in turn increases uncertainty and feeds the perception of higher risk. Investors and lenders therefore tend to overestimate the risk of default on securities and loans collateralized by IP.

Some perceived risks are real. For example, it is estimated that in cases of loan default, it may take twice as long to liquidate IP as inventory and accounts receivable: two assets for which an asset-backed lending market already exists. The prospects of recovering a substantial part of the funds are also seen as poor. A recent Fitch ratings report on Toys R Us's debt illustrated this concern. The Toys R Us debt structure includes, in part, a secured term loan based

on the company's IP and debt backed by real estate. The IP-secured term loan portion of the debt is listed as less than 10% recoverable, whereas the real estate debt is rated as 70 to 90% recoverable.

To account for this associated risk, bankers offer loans only with high discount rates and often underestimate the potential cash flows. Similarly, lenders embrace very conservative underwriting standards. IP with a positive cash flow might get a loan with a 40% loan-to-value (LTV) ratio, whereas IP with only future implied value would be at a 10% LTV.

Finally, assets must at least be perceived as liquid. The recent seizure of the financial system highlighted the importance of liquidity. In the case of asset-backed financing, securitization is an offshoot of collateralization, and collateralization often requires the backstop of a working primary market in the asset. Markets for the sale and lease of IP have existed for some time, but the regularization of these markets is a relatively recent development that continues to evolve.

In the end, a major reason not to use IP-backed loans may

be cost. High discount rates and low LTV ratios mean a higher cost of capital. In addition, each IP and intangible asset financing deal seems to be a unique, one-off event employing differing models to determine the assets' value, thereby driving up transaction costs. The cost of capital for borrowers using IP and intangible assets may simply make their use prohibitive. Any cheaper source of capital will be much more attractive.

### Overcoming the barriers

Turning IP-backed financing from an exotic, one-off transaction into a routine mechanism by which innovative companies can raise funds will require changes in industry standards and government policies, including technology policy. But it also means going well beyond the boundaries of what is normally considered technology policy.

To start, we should examine the current IP marketplace. Lenders and investors want a level of assurance that, in case of default, they will reclaim some of their money. That



LEWIS BALTZ, East Wall, McGaw Laboratories, 1821 Langley, Costa Mesa, Gelatin silver print, 6 x 9 inches, 1974.

# WE SHOULD EMBRACE THE CONCLUSION OF THE RISING ABOVE THE GATHERING STORM REPORT THAT "LAYING THE FOUNDATION FOR A SCIENTIFICALLY LITERATE WORKFORCE BEGINS WITH DEVELOPING OUTSTANDING K-12 TEACHERS IN SCIENCE AND MATHEMATICS."

requires a robust market for the collateral that the lender can access to liquidate the asset. An asset with a 10 to 40% recapture rate is naturally going to attract only the most risk-tolerant investors. Although the markets for IP have been evolving, we should look carefully at public policies that will accelerate this development. For example, the federal government should review its technology transfer policies and procedures to facilitate and streamline the process. We should also look at the licensing process with an eye toward reducing transaction costs and using standardized documents. Government agency use of emerging IP marketplaces should likewise be encouraged. The recent public sale of some National Aeronautics and Space Administration patents at an ICAP OceanTomo auction is an example of how the government can use its own patent assets to help expand the IP marketplace.

In addition, the process of using IP as collateral must be streamlined and standardized. Here, the federal government can be a lead player. The U.S. Small Business Administration (SBA) plays a vital role in financing new and small businesses through loan guarantee programs such as the 7a Program. The SBA recently revised its standard operating procedure for the 7a Program to make it clear that loans can be used for the acquisition of intangible assets when buying a business. However, the rules are unclear as to whether intangible assets can be used as collateral. Intangible assets, especially IP, must be incorporated into SBA lending policies. The SBA should work with commercial lenders to extend SBA underwriting standards to cover the use of intangible assets as collateral.

Beyond underwriting standards, the establishment of a specific IP-backed lending program should be considered. Other nations, such as China and Thailand, have already developed special programs for IP-backed lending. The United States could set up a similar pilot program run by SBA lending experts. Technical support could be provided by the SBA's Office of Technology, which coordinates the Small Business Innovation Research program, and the U.S. Commerce Department's National Institute of Standards and

Technology, which runs the Technology Innovation Program and other science- and technology-related initiatives. Such a direct lending program would be a step beyond SBA's current loan guarantee programs. Direct lending is necessary to jump-start the process, but once the process of using IP as collateral is fully accepted, the program could convert to loan guarantees.

Key to both the creation of SBA underwriting standards for IP collateralization and a direct lending program is standardized valuation methodologies. IP is routinely valued for a number of reasons, such as purchases and licensing agreements, transfer tax considerations, damages and awards in infringement cases, financial accounting statements of acquired assets, and merger and acquisition due diligence. As a result, consulting firms, litigation specialists, and companies employ countless methodologies and models. As long as IP valuation is seen as an art rather than a science, lenders and investors will continue to view such investments as risky.

Work is being done on the topic. For example, the International Valuation Standards Council is in the process of issuing Guidance Note No. 4, "Valuation of Intangible Assets" (due out in January 2010). Such activities provide a solid foundation on which the SBA and financial regulators can build.

Larger issues of financial reform must also be addressed. As Congress, the Obama administration, and regulatory agencies work through reform of the financial sector, they must be cognizant of the hidden role of IP in the market-place. Banking regulators such as the Federal Reserve should collect data on whether and to what extent lending institutions are using IP as loan collateral, both explicitly and implicitly. Given the intangible assets that can be wrapped up in the catch-all category of liens on all assets, regulatory agencies should also ask how lending institutions value the intangible assets for purposes of assessing collateral and determining underwriting standards—specifically, valuation and LTV ratios.

Such information is useful not only to foster the use of IPbacked financing but to promote the safety and soundness of the financial sector. Failure to explicitly include intangible assets may have three consequences. First, it may underestimate the amount of collateral that a lending institution has to call on in case of default. Second, it may show a weakness in the lending institution's ability to recapture that collateral value, because the lending institution may be dealing with an asset it does not understand. Third, there may be a systemic failure to properly price loans, insofar as the lending institution cannot properly value the intangible assets or applies exceedingly low LTV ratios that do not accurately reflect the risk but are a function of the lending institution's lack of information. The result is the higher cost of capital, especially for borrowers in the knowledge and technology fields with extensive intangible assets. Regulations affecting lending, such as bank capital standards, should therefore be reviewed to take into account IP-backed lending. The international Basel II Capital Accords might, for instance, be examined for their impact on intangible assets.

Finally, policymakers need to make financial statements more transparent. Workable financial markets require consistent, accurate, and useable information on prices and values. However, investors and creditors are increasingly forced to make decisions in the dark; intangibles play an increasingly important role in U.S. businesses, yet the means of understanding the nature and behavior of these assets fail to keep pace. Limited insight into intangible holdings slows financial activity and restrains U.S. enterprises, which need ready access to capital to innovate, grow, and sustain themselves.

To achieve greater transparency, accounting standards must be modified to better account for intangibles. As a first step, the Financial Accounting Standards Board and the International Accounting Standards Board should reinstate their research project on expanded disclosure guidelines for intangibles. There is no reason to continue to treat internally generated intangibles differently from the same type of intangible purchased from outside. In addition, the Securities and Exchange Commission should create a safe harbor in financial statements for corporate reporting of intangible assets.

The policymakers who are now grappling with the issue of financial reform are neglecting the critical use of intangible assets as a financing mechanism. One-half to two-thirds of companies' value consists of their intangibles assets. There are a number of examples in which intangible assets have been directly used as financial tools, either through securitization or as lending collateral. More commonly, banks are implicitly underwriting loans based on the value of

intangibles assets. But these assets are not explicitly recognized in the underwriting process and are therefore not taken into account as part of banking supervision or financial market regulation.

Now is the time to create new means of financing innovation. The deals that have been done demonstrate that IP and other intangibles are viable assets to secure capital. Unlike other "exotic" financing vehicles, however, intangible-asset financial products are built on some of the most basic financing mechanisms. Far from being exotic, they use traditional techniques in new ways to help companies innovate and grow. There is plenty of opportunity to harness the power of intangibles. All we need now is the will to develop and use this innovative method of financing innovation.

### Recommended reading

- Carol A. Corrado, Charles R. Hulten, and Daniel E. Sichel, *Intangible Capital and Economic Growth*, Working Paper No. 11948 (Cambridge, MA: National Bureau of Economic Research, January 2006), http://www.nber.org/papers/w11948.
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- Ian Ellis, Maximizing Intellectual Property and Intangible Assets: Case Studies in Intangible Asset Finance, Athena Alliance Working Paper 07 (Washington, DC: Athena Alliance, November 2009), http://www.athenaalliance.org.
- Kenan Patrick Jarboe, "Building a capital market for intangibles," *Intellectual Asset Management* (June/July 2008): 30–35 (www.iam-magazine.com).
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- Leonard Nakamura, "A Trillion Dollars a Year in Intangible Investment and the New Economy," in *Intangible Assets: Values, Measures and Risks*, eds. J. Hand and L. Baruch (Oxford, UK: Oxford University Press, 2003).

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