Apple's Win Highlights Uncertainty in Valuing Tech Investments

Tom Hopkins
Fortisure Consulting L.P

Kara Boatman
Fortisure Consulting L.P

Follow this and additional works at: https://scholarworks.sjsu.edu/sjsumstjournal

Part of the Taxation-Federal Commons

Recommended Citation
https://doi.org/10.31979/2381-3679.2013.030107 https://scholarworks.sjsu.edu/sjsumstjournal/vol3/iss1/7

This Article is brought to you for free and open access by the Lucas Graduate School of Business at SJSU ScholarWorks. It has been accepted for inclusion in The Contemporary Tax Journal by an authorized editor of SJSU ScholarWorks. For more information, please contact scholarworks@sjsu.edu.
SEEKING ARTICLES

We are seeking articles on current tax matters for future issues of The Contemporary Tax Journal. Manuscripts from tax practitioners, academics and graduate students are desired. If you are interested in seeing your work published in this Journal, please read more about our submission policy below and on the website.

Articles must be your original work. Articles should be 8 to 16 double-spaced pages (2,500 to 6,000 words). Articles are subject to blind peer review.

Submission deadlines:
Fall Issue : 1 February
Spring Issue : 1 August

For more information on the article submission process, please see the submission link on our website http://www.sjumstjournal.com

Apple’s Big Win Highlights Uncertainty in Valuing Tech Investments

By: Tom Hopkins, CEO, Fortisure Consulting L.P., and Kara Boatman, Senior VP, Fortisure Consulting, L.P.

Abstract

Apple’s victory against Samsung in 2012 reaffirms the power of patents and the extent to which they drive profits in the technology sector. It also highlights the fact that the precise contribution of intellectual property ("IP") to firm value is a matter of perspective. Technology companies must value IP every time they engage in M&A activity, intercompany technology licensing, or tax-motivated IP migration. Significant methodological differences in each area create potential pitfalls for firms and practitioners in an increasingly skeptical investor and regulatory environment.

The profusion of IP litigation presents an additional challenge to technology companies. Expert witnesses and technology-savvy jurors can reach widely divergent conclusions regarding IP value. Moreover, those valuations are likely to differ substantially from results reached in the course of purchase price allocation and transfer pricing studies. Careful management of the preparation and dissemination of these analyses may allow firms to avoid costly misinterpretations of the results.

Introduction

Apple’s 2012 victory against Samsung reaffirms the value of patents and the extent to which they drive profits in the technology sector. It also highlights the fact that the precise contribution of intellectual property ("IP") to firm value is not easily measurable. In Apple v. Samsung, Apple’s experts estimated that the company losses were in excess of $2.5 billion as a result of Samsung’s patent infringement. Samsung’s experts countered with a figure closer to $520 million. Which of these calculations, if any, approximates the true value of the infringed patents?

Questions about IP value extend well beyond the courtroom. Technology companies are faced with these questions every time they engage in merger and acquisition ("M&A") activity, intercompany...
technology licensing, or tax-motivated IP migration. Global technology firms often pursue these strategies simultaneously and, because valuation results are highly sensitive to their analytical context, companies may find themselves in the uncomfortable position of defending very different assessments of the value of their technology. Understanding accepted methodologies and their respective and comparative impact on estimates of IP value can facilitate a coordinated approach to these analyses. Well-reasoned and supported IP valuations may also avoid costly proceedings with courts, financial regulators and tax authorities.

The Challenge of IP Valuation

IP drives enterprise value in technology-based economies. Unprotected sources of competitive advantage—know-how, processes and talent, to name a few - dissipate quickly in markets “turbo-charged” by immediate and continuous access to information. It’s no surprise, then, to see companies like Apple vigorously defend their IP when they believe it has been unlawfully appropriated. As a result IP claims continue to escalate, with litigants expending enormous resources to quantify the value of the disputed IP.

Even absent litigation, companies pay close attention to IP, continuously searching for new ways to extract value from existing IP and hunting for sources of valuable new technology. Google’s 2012 $12.5 billion acquisition of Motorola Mobility was part of a specific strategy to expand the market for its Android operating system and protect its smartphone manufacturing partners.

IP exploitation enhances shareholder value by generating competitive advantages that result in higher profits. Firms devote substantial resources to research and development (“R&D”) activity, aggressively pursuing IP through M&A or employing a combination of both strategies. In addition, companies may extract additional benefits from IP, either by deploying it simultaneously in several locations worldwide or by structuring and/or migrating R&D activities to reduce income tax liability.

In the case of M&A, U.S. and international regulations require that the acquiring entity report the value of the IP it has purchased in order to promote transactional transparency. If the company is migrating R&D activity or licensing the resulting IP to its cross-border affiliates, tax authorities require an IP valuation analysis in order to ensure compliance with the arm’s length standard and associated transfer pricing regulations. Financial reporting and transfer pricing documentation requirements are not new; most companies are familiar with the accepted approaches to IP valuation for business combination studies and intercompany pricing analyses. Valuation and transfer pricing practitioners are aware of the differences in these approaches and the need to coordinate the respective analyses, especially when they involve exchanges of the same or similar technology at roughly the same time.

But the recent increase in IP litigation involving the biggest names in the technology sector presents an additional challenge to technology companies. Expert witnesses and technology-savvy jurors can reach widely divergent conclusions regarding IP value.1

Moreover, those valuations are likely to differ substantially from results reached in the course of purchase price allocation and transfer pricing studies, compounding the confusion. In an increasingly skeptical investor and regulatory environment, companies can ill afford suspicions that they have manipulated courts, investors or regulators, by proposing different valuations of IP to suit their purposes in each area.

Even absent direct involvement in IP litigation, technology companies should anticipate more challenges to their intercompany royalty studies and purchase price allocation analyses as information from high-profile litigation becomes public. The fact that significant differences exist across accepted methodologies in each area creates potential pitfalls for firms and practitioners alike.

Understanding these differences will not only allow firms to anticipate and respond to challenges, but may encourage a more coherent approach to IP valuation in the first place.2

Reasonable Royalty Approach


For ease of discussion, IP valuation for financial reporting purposes will hereinafter be referred to as “financial valuation” or the “financial reporting approach,” while IP valuation for intercompany pricing purposes will be referred to as “transfer pricing valuation” or the "transfer pricing approach.”

The argument is that the courts may accept royalty rates on the high end of the range in cases of willful infringement, which was the principal finding in Apple v. Samsung. In addition, while the hypothetical negotiation is assumed to take place on the date of first infringement, courts sometimes consider...
the hypothetical licensee would not agree to a royalty that did not allow it to earn a "reasonable" profit; economics dictates that the licensee would be willing to accept any royalty that results in higher profits than the next best alternative.

Financial Reporting Approach

For financial statement reporting purposes, an intangible asset is defined as one that is identifiable, "lacks physical substance" and is not a financial asset.\(^5\) As long as that asset arises from legal or contractual rights, the asset will be recognized apart from goodwill. Intangible assets may be marketing-related, customer-related, artistic-related, contract-based or technology-based; this category of assets clearly includes patented technology.

When a U.S. firm makes an acquisition, it must recognize the assets acquired and liabilities assumed, and adjust for any non-controlling interest in the acquired entity. The Financial Accounting Standards Board (FASB) codified these requirements in ASC 805, which requires firms to use the purchase method of accounting when reporting business combinations. That is, the acquiring firm records the price of the merger as it would the cost of any asset and allocates the price to the tangible, financial and intangible assets acquired. Assets must be recognized at fair value, defined as the price at which an asset could be bought or sold in a current transaction between market participants.\(^7\)

ASC 350 addresses how acquired intangibles should be accounted for in financial statements, both upon and following their acquisition. It prohibits the amortization of goodwill and some intangible assets, where goodwill is defined as the excess of the purchase price over the fair market value of net assets. The value of any amortized intangibles, those intangible assets that arise from contractual or legal rights or are separable from other assets, must be documented and supported by financial analysis.\(^8\) ASC 805 and ASC 350 effectively require firms to recognize and value intangible assets on an individual basis, in order to provide more relevant and reliable information to investors.

The FASB accepts three general approaches to intangible asset valuation: the market approach, the income approach and the cost approach.

Financial valuations begin with the acquisition price and rely primarily on discounted future cash flows and balance sheet analysis. Any excess of the purchase price over the fair value of tangible assets is attributed to intangible assets and/or goodwill. Intangible assets must then be identified and their value separately derived. Any remaining value is classified as goodwill.\(^9\)

The FASB accepts three general approaches to intangible asset valuation: the market approach, the income approach and the cost approach. In the market approach, intangible asset value is determined by reference to similar assets that have been sold or licensed. If such market transactions can be identified, the terms of those transactions are used to establish the value of the intangible in question. Increasingly, analysts recognize that IP - by its very nature - exhibits unique characteristics and capabilities, and that the probability of identifying truly comparable sales or licenses is low.

Absent reliable market evidence, the intangible may be valued using the income approach. A discounted cash flow model is constructed, based on assumptions regarding growth, profitability, competition, risk, and asset life. The model then calculates the present value of the stream of future profits attributable to the intangible asset in question.

Under the income approach, an intangible asset’s value is calculated over its “useful life.” The period of time over which the asset is expected to contribute to the reporting entity’s (i.e. the buyer’s) cash flows. As long as the asset is contributing or expected to contribute to future cash flows, it will attract a portion of the firm’s value. The useful life of patented technology is typically viewed as the remaining life of the patent.

Finally, the cost approach may be used. This approach relies on the principle of replacement cost to estimate asset value, and is typically used to value intangible assets such as engineering know-how or technical drawings. The cost approach implicitly assumes that value is somehow tied to cost. In fact, there is no economic link between the development cost associated with a particular technology and the value it ultimately generates. A cost approach, therefore, is unlikely to yield a correct estimate of value, except in rare circumstances.

Comparison of the Reasonable Royalty and Financial Reporting Approaches

If the market approach is used to value IP in a financial reporting analysis, there is no reason to believe that the determination of value would differ from a reasonable royalty approach using the same methodology. The difficulty arises when the financial valuation and the reasonable royalty calculation both rely on the income approach.

The financial valuation analysis relies on balance sheet data, while a reasonable royalty calculation typically relies on a profit analysis. This difference in methodologies should not result in different IP values; since corporate assets generate cash flows through time, an asset’s value is a stock measure of the discounted cash flows the asset is expected to create. The important distinction between the two approaches is in their respective starting points.

The financial valuation is a “top-down” analysis, in which the market value of the firm is reflected in the acquisition cost. Although the FASB has increased the focus on individual intangible asset identification and valuation, financial reporting analyses are still intended to allocatethe total acquisition cost across a variety of candidate tangible

The financial valuation is a “top-down” analysis, in which the market value of the firm is reflected in the acquisition cost.
and intangible assets. The firm’s purchase price often includes a premium over a value calculated strictly on the basis of expected future profits. This premium reflects a variety of factors, including current stock market conditions, anticipated synergies, majority control and other benefits attributable to the anticipated business combination. Arguably, such a premium should be allocated entirely to goodwill. In practice, however, some portion of this premium may be attributed to the firm’s IP.

The reasonable royalty approach, in contrast, represents a purely “bottom-up” analysis. The purpose of the exercise is to determine the value of a particular piece of IP, not of the entire firm. No premium value can be allocated to the IP, because the market value of the firm as a whole has not been determined.

Which analysis correctly assesses the value of the IP? Recall the definition of economic value: it is derived from an asset’s ability to generate income. Markets are hypothetically efficient, and in theory a firm’s market price should reflect the economic value of its assets. However, the market may experience a temporary shock, or disequilibrium, causing the market value of a public company to rise and fall from day to day. Moreover, bidding wars can emerge for private or public companies, with resulting price spikes. At a particular point in time, the purchase price may not reflect the true economic value of the underlying assets. Allocating that purchase price to a firm’s individual intangible assets may introduce “noise” into the asset valuation, distorting economic value. The difficulty arises because the analytical starting point is the sale of an entire firm, rather than the licensing of an individual asset, notwithstanding the FASB’s focus on an asset-by-asset analysis.

Note that the FASB does not advocate the allocation of a purchase price premium to firm IP. Recent changes to business combination accounting requirements were intended to increase the focus on individual intangible asset identification and valuation and to increase transparency in the financial reporting of acquisitions. To the extent that distortions in estimates of IP value occur, they result from firm incentives to attach as much of the purchase price as possible to intangible assets other than goodwill, since goodwill cannot be amortized. Ironically, the increased transparency required by the FASB may increase firm incentives to overvalue intangible assets.

How do these different approaches alter the estimated value of patented technology? If the purchase price includes a market-based premium, the technology may be valued more highly in a financial reporting analysis than in a reasonable royalty calculation.

**Transfer Pricing Approach**

For transfer pricing purposes, intangible asset valuation is required in a variety of circumstances. Section 482 of the Internal Revenue Code and the underlying Regulations (commonly referred to as “the U.S. transfer pricing regulations”) require that all transfers of tangible and intangible property within a multinational enterprise (MNE) take place under terms that would prevail if the transacting entities were unrelated. An MNE that wishes to license its patented technology to other related entities must determine an arm’s-length royalty payment. The arm’s-length analysis influences the portion of worldwide income that is earned in each tax jurisdiction, and consequently affects the MNE’s global tax liability.  

The U.S. transfer pricing regulations define an intangible asset as one that “…has substantial value independent of the services of any individual…” and “derives its value not from its physical attributes but from its intellectual content or other intangible properties.” The regulations identify categories of intangible property that closely resemble those in the FASB statements. Implicit in the described transfer pricing methodologies, however, is a focus on non-routine intangibles, or those that allow the company to earn supranormal returns.

An intangible is considered valuable and non-routine as long as it generates profits beyond those attributable to routine functions (e.g., distribution and manufacturing). Profits associated with routine intangibles are indeed allocable from returns to routine functions, and consequently cannot be separately valued or transferred. In a transfer pricing context, therefore, only a subset of what constitutes intangible assets for financial reporting purposes is at issue. Patented technology may or may not constitute a valuable, non-routine intangible.

**In a transfer pricing context… only a subset of what constitutes intangible assets for financial reporting purposes is at issue**

资产的经济价值：它源于资产的生产能力。市场是假设有效的，而且在理论上，一个公司的市场价格应该反映其资产的经济价值。然而，市场可能会经历一个暂时性的冲击，或者市场失衡，导致一个公共公司的市场价格在一天内上涨和下跌。此外，竞标大战可能会发生在私人或公共公司之间，导致价格的波动。在特定的时间点，购买价格可能不能反映其内在经济价值的资产。如果分配购买价格到资产的IP，因为市场价值的整个公司没有被确定。

合理报酬的方法代表一个纯粹的“自下而上”的分析，市场价值的IP。最近对商业合并会计要求的变化旨在增加对个别无形资产的识别和估价，并增加财务报告的透明度。尽管这种透明度要求可能会增加公司激励过度估价无形资产。

这些不同的方法如何影响专利技术的估计价值？如果购买价格包括一个市场基线的溢价，那么这项技术可能会被高估。如果这个溢价被分配到无形资产，那么这是因为公司激励过度估价无形资产。

**转让定价方法**

对于转让定价目的，无形资产估价是要求的。在美国转让定价法规中，所有转移的有形资产和无形资产都必须在跨国公司（MNE）内部以公平交易的价格进行转移，而且该价格也不会因是否独立于服务而改变。无形资产被定义为“具有实质价值独立于服务的任何个人的”和“其价值不来自其物理属性，而是来自其智力内容或其他无形资产的”。“无形资产”在FASB的规定中被定义，并暗示在转移定价方法中，然而，是一种专注于非例行无形资产，或者那些允许公司获得超正常回报的无形资产。

无形资产被视为有价值和非例行的，只要它能产生超出常规功能的利润（例如，分销和制造）。与常规无形资产相关的利润是可归因于常规功能的，因此不能单独的价值或转移。在转让定价的背景下，因此，只有一部分构成无形资产的资产对财务报告目的来说是问题。专利技术可能或不可能构成有价值的，非例行无形资产。

**在转让定价的背景下...只有资产的一个子集，对财务报告目的来说是问题**
For transfer pricing purposes, the relevant life of an intangible asset is considered to be its “economic” life, or the period of time over which the asset generates supranormal profits. The asset’s economic life is shorter than its useful life; its economic life ends when it no longer generates non-routine profits, while its useful life continues as long as it generates profits for GAAP purposes.

On the surface, the transfer pricing approach to IP valuation appears to closely resemble the reasonable royalty approach. The purpose of the exercise is to determine the economic value of a particular non-routine intangible, or piece of IP, not of the entire firm. In addition, absent market evidence (for comparable transactions or established royalty rates), both approaches typically rely on an estimate of future profits attributable to the intangible, rather than a balance sheet analysis. However, the two approaches can generate significantly different results.

First, recall that the transfer pricing analysis begins with operating profits, and then removes profits attributable to routine functions such as manufacturing and distribution. The reasonable royalty approach removes the costs associated with manufacturing (e.g. depreciation, raw materials, labor) and distribution (e.g. sales and marketing expenses), but does not explicitly remove a return to those costs. In this respect, the IP value suggested by the transfer pricing analysis is likely to be lower than the value implied by a reasonable royalty calculation.

Second, the transfer pricing analysis relies upon a shorter “economic life” than the useful life posited in both the financial reporting and reasonable royalty approaches. Assuming identical estimates of future profits associated with the IP, the transfer pricing analysis can generate a lower intangible asset value than a financial valuation or a reasonable royalty analysis.14

Third, the transfer pricing analysis returns all of the excess profits attributable to the IP to the intangible asset owner in the form of a royalty. In contrast, the reasonable royalty approach typically divides the value of the IP between the licensor and licensee. This difference will likely decrease the reasonable royalty estimate relative to the transfer pricing royalty.15

Finally, while the reasonable royalty approach accounts for feasible non-infringing alternatives available to the licensee, the transfer pricing approach does not. This difference will almost certainly drive the reasonable royalty lower than the transfer pricing royalty, since a reasonable royalty – by definition - shouldn’t cost the hypothetical licensor more than the cost of designing around the patent.

Implications and Conclusions

While tax authorities and practitioners have expressly rejected court-determined damages awards as arm’s length evidence of intangible asset value for transfer pricing purposes, companies should not assume that the underlying expert analyses regarding reasonable royalties can be entirely ignored. Experts testify that these analyses represent their best estimates of the value of intellectual property under certain circumstances and at a specific time. By definition, the litigants are unrelated, so any hypothetical negotiation would satisfy the arm’s length principle. To the extent that these expert analyses or resulting conclusions regarding reasonable royalties are disseminated publicly, companies may have to explain why their analyses of the same IP for transfer pricing or financial reporting purposes generate different results. Unfortunately, the methodology differences between the reasonable royalty, financial reporting and transfer pricing approaches don’t allow for straightforward conclusions as to which approach will generate the highest or lowest estimates of IP value.

In the meantime, what are the implications of disparate valuation analyses? First, litigants may try to introduce either financial or transfer pricing IP valuations in an effort to discredit their adversaries, and/or as evidence of the firm’s “true” view of the value of the disputed patent.16 Second, investors, financial regulators or tax authorities may examine the litigation history of the firm and attempt to use accessible information regarding reasonable royalty analyses as evidence of IP value in a tax or financial context. A coordinated approach to IP analysis can reduce inconsistencies, but cannot eliminate them. To the extent that firms and practitioners can manage the preparation, dissemination and clarification of these analyses, they may avoid costly misinterpretations of the results.

14 If the likelihood of rapid technological advance is “built in” to the reasonable royalty calculation, its impact on cash flows would be to reduce the expected infringer profits attributable to the technology, thereby reducing the reasonable royalty. This would offset the longer life assumed in the calculation and lower the implied value of the IP.

15 Only in rare cases will the profit division reflect the division between routine returns and returns to non-routine intangibles implicit in the transfer pricing analysis, causing the two analyses to converge.

About the authors:

Tom Hopkins is the Founder and CEO of Fortisure Consulting in San Francisco. Before assuming that role, he was a long time Tax Partner with KPMG most recently serving sixteen years in its Silicon Valley Office. He is a Certified Public Accountant and a graduate of Tulane and Loyola Universities.

Kara Boatman is a Ph.D. economist with twenty years of experience in transfer pricing and valuation. A Senior Vice President at Fortisure Consulting, she leads the Transfer Pricing and Valuation Services practice.