Patrick Breslin Comments on the Revised Discussion Draft

Chapter VI of the OECD Transfer Pricing Guidelines
on Intangibles Transactions

(submitted October 1, 2013)

I would like to thank the OECD Committee on Fiscal Affairs and Working Party No. 6 for the opportunity to comment further on this important project. I also appreciate the significant progress made to date as the OECD intangibles project proceeds. Such progress is reflected in the revised discussion draft Chapter VI of the OECD transfer pricing guidelines, issued on July 30, 2013.1

My views are not only informed by my experience as a transfer pricing economist, but also by my experience as a business executive who has negotiated multiple arm’s length technology license agreements and other transactions involving intangibles. I also weigh my experience as a consulting expert in major litigation matters involving intellectual property, valuation and related issues. Such experiences are contextually relevant to Chapter VI and are also related to what is now often called the “digital economy.”

The majority of my commentary on the revised draft is embodied in a paper I recently published in BNA Tax Management Transfer Pricing Report, entitled, “An Early-Stage Investor Analogy: How Related-Party Transfers of Intangibles Contribute to Base Erosion and Profit Shifting.”2 I thus attach this publication as part of my comment submission.

The early-stage investor analogy uses arm’s length evidence of typical arrangements between active investors and purely financial investors in R&D-intensive ventures. Where active investors assume control over the main strategic decision-making and other relevant functions and risks, the relative returns to such investors are customarily higher than returns to financial investors that do not undertake such functions and risks.

The paper also observes that related party transfers of rights to invest in R&D projects may invert these relative returns and reward affiliates making later-stage, purely financial investment with higher returns than affiliates making riskier, early-stage investments and managing the R&D. Such outcomes would be highly improbable at arm’s length and thus would contribute to tax-base erosion and profit shifting.

As reflected in the revised draft, transfer pricing analysis of intangibles may encounter situations in which “one member of an MNE group may fund some or all of the

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1 Hereinafter, this July 30, 2013 draft Chapter VI document will be referred to as the “revised draft.”
development, enhancement, maintenance, and protection of an intangible, while one or more other members perform all of the relevant functions” (paragraph 82). The revised draft continues:

When assessing the appropriate return to funding in such circumstances, it should be recognised that in arm’s length transactions, a party that provides funding, but does not control the risks or perform other functions associated with the funded activity, generally does not receive returns equivalent to those received by an otherwise similarly-situated investor who also performs and controls important functions and bears and controls important risks associated with the funded activity. (paragraph 82)

The early-stage investor paper illustrates this point and identifies arrangements between independent entities that offer concrete examples and empirical evidence of arm’s length returns under R&D-focused funding arrangements. These share many of the same and/or similar attributes of high–profile, R&D-related intangibles transfers between multinational affiliates.

These and other arm’s length concepts and subjects are properly addressed in the revised Chapter VI and they necessarily cut across the subsections and topics addressed in the draft chapter and in other chapters of the OECD transfer pricing guidelines.

For example, the early-stage investor analogy will directly address areas in Section B of the revised draft—in particular, paragraphs 82 through 84—regarding the separation of funding from control over functions and risks related to intangibles development. But the analogy is also able to illustrate other key issues discussed in other sections of the revised draft. For example, mispricing illustrated by related party intangibles transfers often stems from contextual mismatches in areas that are properly addressed in this revised draft, such as:

- the stage of development of the intangibles (paragraphs 141–42);
- rights to enhancements, revisions and updates (paragraphs 143–44);
- risks related to the likelihood of future economic benefits (paragraph 146); and
- arm’s length pricing when valuation is highly uncertain at the time of the transaction (paragraph 199).

The arm’s length evidence in the paper provides an illustration that supports the direction emerging in the OECD’s draft Chapter VI. Please see the attached publication for additional comments and detailed illustrations regarding such issues.
An Early-Stage Investor Analogy: How Related-Party Transfers Of Intangibles Contribute to Base Erosion and Profit Shifting

The OECD’s revised discussion draft on intangibles raises key questions about the relative returns due to active versus purely financial investment in R&D. Author Patrick Breslin examines arm’s-length examples of R&D investments and concludes that, while returns to entities in an active investor role typically exceed returns to purely financial investors, related-party R&D investment patterns appear to invert this common arm’s-length relationship, rewarding affiliates making later-stage, financial investments with higher returns than affiliates making riskier, early-stage investments and managing the R&D.

By Patrick Breslin, Bates White Economic Consulting

As part of its Base Erosion and Profit Shifting (BEPS) initiative, the OECD continues to make progress in its efforts to revise and update its transfer pricing guidelines on intangibles transactions. This OECD intangibles project relates to, among other items, Action Items 8, 9 and 10 of the OECD’s “Action Plan on Base Erosion and Profit Shifting,” a set of recommendations on international tax reform prepared at the request of the G-20 Finance Ministers and released on July 19, 2013.1

On July 30, 2013, at the National Association of Business Economics (NABE) Transfer Pricing Symposium (NABE conference), the OECD released a revised discussion draft Chapter VI of the OECD transfer pricing guidelines dealing with intangibles transactions, having taken voluminous public commentary and business consultations into consideration since the discussion draft was originally released in June 2012.2

At one such public forum—a June 6, 2013, international tax conference—OECD drafters acknowledged the views of some commentators that perhaps the “[original] discussion draft gives inadequate guidance on reward to financial investment separated from functions and control” in situations where transfers of rights in intangibles are concerned.3 OECD officials, tax practitioners and representatives of the business community participated in this panel, which addressed a question that is among “the most difficult and most contentious issues” regarding the taxation of cross-border transfers of intangibles:4

What return should accrue to an entity that makes financial investment [in intangibles development]


2 “Discussion Draft: Revision of the Special Considerations for Intangibles in Chapter VI of the OECD Transfer Pricing Guidelines and Related Provisions,” by Working Party No. 6 of the OECD Committee on Fiscal Affairs, June 6 to Sept. 14, 2012. Hereafter, the term “discussion draft” will refer to this publication, the term “revised draft” will refer to the revised draft released July 30, 2013, at the NABE conference in Arlington, Va., and the “OECD intangibles project” will refer to these drafts and the related activities of Working Party No. 6, including its consultations with business and practitioners.


4 Id.

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but does no relevant functions and assumes only a financial risk?25

Implicit in the June 6 panel’s question above is a related one: what return should accrue to an entity that makes a financial investment and performs relevant functions while undertaking additional risks not borne by a purely financial investor? More recently, at a NABE conference panel on Aug. 1, 2013, participants in the OECD’s Working Party 6 made a presentation noting, “An entity merely providing funding but not performing functions or assuming risks should receive a lower return than entities that perform functions and assume risks.”26 Such questions and issues remain the subject of Section B of the revised draft.27

This article examines arm’s-length examples of investment in R&D and intangibles-related projects and enterprises that support the direction emerging in the revised draft.28 The structures of these investments demonstrate that returns accruing to entities that play an active investor role in intangibles-related activities typically exceed returns accruing to entities making a purely financial investment. These different returns also reflect the differing risk profiles of these two types of investors, which relate not only to the functions and control exercised by the active investors but to the early-stage timing of their investments as well.

While it seems intuitive that an active, early-stage investor would earn a higher return than a later-stage financial investor, early-stage investments in technology startups provide evidence in a context that specifically concerns investments in R&D, technology and other intangibles development. In these respects, early-stage investment transactions provide a useful analogy for examining related-party transactions focused primarily on R&D and/or the development of intangible assets.

Public details of intercompany R&D investment transactions are somewhat limited, but available information indicates that these arrangements may invert the relative returns resulting from early-stage investor arrangements commonly seen at arm’s length. That is, related-party R&D investment patterns appear to reward affiliates making later-stage and primarily financial investment in R&D with higher returns than those allocated to the parent or affiliates that made the earlier-stage investments, assumed the corresponding risks, and maintained control of the R&D activities.

**Intercompany Investments in R&D and Intangibles Development**

Large-scale intercompany R&D investments and related returns are among the most contentious transfer pricing issues.29 Often in a multinational company (MNC) intangibles transaction, an affiliate in a lower tax jurisdiction with little or no history of performing, managing or controlling the global company’s R&D (or other intangibles development projects) is transferred a large ownership interest in R&D projects going forward—thus earning the “intangible related return” in all territories outside the parent/transferor’s jurisdiction.

The R&D-related investments made by this affiliate usually include:

- an initial “buy-in” payment for rights to further develop existing technologies through ongoing R&D projects; and
- a commitment to make its pro-rata share of R&D cost sharing payments corresponding to its expected returns—as measured by a formula agreed to by the parties.

At least where the R&D activity is concerned, this affiliate is usually making a financial contribution, as the R&D typically continues to be performed within the parent country.

Given the limited pre-existing functional profile of the affiliates that are acquiring the R&D rights (at least, with respect to R&D), they are sometimes referred to as a “cash box”—they bring their money to the table fully willing to take on the same risks (and rewards) that attribute to the transferor that originally created the intangibles; that is, from the date of the transaction forward.10

One might pose the question: doesn’t this type of financial investment happen at arm’s length every day, such as when any investor buys stock in a risky company? Answers will be addressed in detail below, but to respond in brief: this might happen every day, but such investments are rarely available to just any investor.

**Intangibles Investment Opportunities Are Limited, Emanate From Active Control**

In many cases, investment in intangibles development (and other early-stage investments) requires and, indeed, emanates from very active control over intangible development-related activities and risks. Furthermore, it is rare that the rights to make such investments are widely available to entities that do not also maintain some significant control over development and related financing decisions, as will be discussed further. Below, two main scenarios that illustrate this premise are provided:

1. the “internal project” scenario, focusing on the earlier-stage investments that a larger, more established company makes in new projects; and
2. the “startup” company (or early-stage enterprise) scenario.

As we will see, both of these scenarios for making early-stage investments originate from and are closely tied to active control over such investments. They also have other key aspects in common with respect to access to intangibles-related returns. For example, given the nearness of the ideas and the research they comprise (both of which are intentionally kept highly proprietary), these investment opportunities are known only to a limited inner circle of potential investors, be-

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5 Id., at 12.
7 Section B of the revised draft is entitled “Ownership of Intangibles and Transactions Involving the Development, Enhancement, Maintenance and Protection of Intangibles.”
8 For example, see the revised draft paragraphs 82 through 84.
10 Outside of the R&D area, such affiliates may contribute varying degrees of local and international sales, production and services activities on a going forward basis.
gining with the founders and growing to include seed and early-stage investors.

Also, because their prospects are highly uncertain in the early stages, these are very risky, illiquid investments. For investors at large, the passage of time, combined with the limited liquidity and transferability of such investments, is enough to preclude access to the higher returns that early-stage investors may realize on these investments. This is poignantly demonstrated by the far greater appreciation in value experienced by a pre-IPO early-stage investor versus a post-IPO public shareholder trying to catch the tail end of the wave in a successful public offering.

**Internal Projects and ‘External R&D’**

Regarding Scenario 1, it is important to recognize the critical distinction between the right to make a financial investment as a general matter—say, in a publicly traded company—and the right to invest in specific internal projects of that same company. The latter investments are not available to outside investors except under very unique circumstances.11

For example, each shareholder in Apple Inc. effectively owns rights to the average return on all of the company’s internal projects, existing products and services combined. You could buy Apple stock that appreciated based on current performance and expectations regarding its numerous ongoing projects and future products. But no outside investor can invest specifically in the early-stage development of one future technology or product area alone—i.e., one that has yet to launch—any more than you could have invested only in the iPhone or iPad project alone over 10 years ago, when Apple’s core commercial product was the iMac.12 (Ironically, the structures of many controversial inter-company R&D transactions posit such a scenario.)

Apple Inc.’s impressive returns thus reflect average returns that incorporate a portfolio of projects—in various stages of development—and combine the varying individual returns on the full range of its activities, from R&D projects and new product development, to sales and marketing for existing products. Thus, an established company makes its own early-stage investments in this “internal project” form. That it is an active investor is obvious. It is also clear that at arm’s length, such investments are not available to purely financial investors.

In contrast, related-party R&D transactions that are the subject here do involve affiliate investment in “internal R&D” programs alone. While the form of these investment transactions does not typically occur at arm’s length, the value of such related-party transactions must reflect values that independent parties would willingly agree to under the same or similar circumstances (i.e., the arm’s-length standard).

Scenario 2, the “startup” profile, focuses on the early-stage nature of uncontrolled startup enterprises, whose investments are usually intangibles-development focused, i.e., they relate to new technologies, products or other ideas that are initially made known only to a small circle of potential investors. Startups are usually focused on one or a few related development projects involving R&D and related activities such as patent applications, and technical, strategy, and business planning.

It is well recognized that when large, established companies acquire startups and other early-stage financed companies, it is often the value of the technology resulting from the startup’s original R&D activities that an acquirer seeks. Often, a startup has developed “disruptive” technologies that either would threaten or complement the acquirer’s products, services and technology. Furthermore, while the acquirer has already achieved significant market success and could more easily commercialize new technologies and products, such areas usually remain less developed for the acquired company in relative terms.

In this sense, the acquired startup has effectively provided “external R&D” that is subsequently brought in-house, having proven success in reaching key milestones and demonstrating promise for future returns. In fact, the frequent occurrence of acquisitions by larger companies is a critical market condition on which venture capital investors depend in order to ensure possible “exit” opportunities and returns on their early-stage investments.

Early-stage investors realize significant returns on successful investments that reward their timing and the risks they assume, as well as the active role that they play in founding and nurturing the startup to success. These returns are reflected in the price that the acquirer is willing to pay for the “external R&D” and the technology intangibles that it generated. Often, the acquirer’s strategy requires these intangible assets, though its own internal R&D investments either did not produce them, or could not do so timely enough to meet with market demands.

**Venture Capital-Funded Returns Result From Early and Active Investor Roles**

Venture capital (VC) is the primary source for long-term investment in startup companies that create new products and services out of new ideas, basic science, and research. Early-stage companies are typically R&D-intensive, high-risk investments that are not able to access more traditional, risk-averse sources of capital such as bank loans. VC firms professionally manage risk capital to fund pre-commercial projects that often take five to eight years to launch.13 These features make such external investments in R&D activities a useful analogy for examining “internal” and/or inter-

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11 Such circumstances might include, for example, a joint venture between key strategic partners where each brings essential contributions other than cash to the table. Here, however, the unique contributions of each partner make the project possible. Thus, these investments are not available to other investors or to investors at large.

12 In fact, Apple is renowned for the secrecy surrounding its new product development strategy and activities. Thus, Apple’s average shareholder would have little knowledge of key strategic R&D projects, for example, but simply entrust the track record of the company to innovate and implement such strategy.

13 Hereafter, references to early-stage investors will include the founders that originate the company. Additionally, that the founders generally play a very active role in the early stages of a company is self-evident and is assumed throughout this paper.

company R&D investments within a multinational group.

The National Venture Capital Association (NVCA) describes venture capital as “more than money” because VC partners “become actively engaged with a [VC-funded] company” and “active engagement is critical to the success of the fledgling company.”

It notes that VC partners typically take a board seat and maintain daily interaction with funded companies.

The startup-related management functions of successful VC firms must be combined with other key capabilities. These include the ability to select viable startups with potential for high returns, raising and managing substantial amounts of risk capital, engaging with large and sophisticated investor groups and closing VC funds with firm investor commitments for significant amounts of equity capital.

For its active investor role, a VC fund typically earns considerably high returns on its investment. These returns far exceed typical market returns to publicly traded equities. For example, for the 20 years ending in December 2012, an index of 1,420 U.S.-based venture capital funds (including successful and less successful funds) earned a 28.5 percent return, while the Dow Jones Industrial index earned a 9.6 percent return.

The two primary means of “exit” for VC investments are merger and acquisition (M&A) and initial public offerings (IPOs). VC fund returns are measured by funded companies’ valuations at exit as a percentage of the VC fund’s total investment during the period in which it was invested, net of losses and write-offs to the portfolio.

By way of example, VC funds target returns on individual investments in the 400 percent to 1000 percent range (4x to 10x). In the second quarter of 2013, for example, 43 percent of M&A transactions of VC-funded companies in the United States fell within that high target range. Obviously, exits producing 2x to 4x returns contribute further to extraordinary returns. However, a VC fund holds a portfolio that includes breakeven and losing investments. Thus, a still substantial 30 percent to 50 percent overall return to investors in a fund (after fund management fees and related interests) has historically been common for successful VC funds.

**Venture Capital Funds Allocate Higher Returns to Active Partners**

VC funds usually are limited partnerships with the VC firm as the general partner (GP) and the outside investors as limited partners (LPs). LPs are financial investors that assume no liabilities beyond their capital contribution, while GPs retain all other liabilities of the fund. GPs typically contribute an amount of capital to the fund, sometimes equal to one percent of the total funds raised from LP investors, for example.

The allocation of functions and risks between the GP and the LPs is telling. GP returns have the potential to far exceed the returns of the financial investors in the fund. LPs willingly grant these significant returns to GPs to compensate their substantial management capabilities (generally and within each funded company) and the risks they assume within the limited partnership.

For example, GPs earn substantial management fees and “carried interest” in the gains that a VC fund realizes after paid-in capital is returned. Sometimes this carried interest is earned before the full amount of gains to LPs are distributed, though often LPs receive preferred distribution thresholds before the GP earns its carried interest. GP compensation includes annual fund management fees that are typically around 1 percent to 2 percent of committed or invested capital as well as a carried interest in the profits of the fund of 20 percent to 25 percent. This compensation comes off of the top of the fund’s gains on investment, before regular distributions to the partners (assuming returns exceed capital contributions).

To illustrate the relatively higher return that the GPs (i.e., VC partners) earn, assume, for example, that the LPs and GP commit $198 million and $2 million, respectively, to create a fund of $200 million in total. Also assume that over several years, the fund becomes fully invested in a portfolio of companies and ultimately realizes total profit interests of $100 million (a 50 percent overall return) before management fees and carried interest. In this case, the partnership must ultimately cover GP carried interest plus management fees of $30 million (assuming a 20 percent carried interest in "profits," i.e., $20 million, plus an annual 1 percent management fee on committed capital over five years, i.e., $2 million per year in each of five years), leaving $70 million for distribution to LP interests after covering paid-in capital.

Here, the proportion of the overall gains to the active investors (the GP) compared to the purely financial investors is about 30/70, despite the capital contribution allocation of 1/99 in favor of the financial investors (i.e., LP interests). Furthermore, while the fund overall earned a 50 percent return on capital contributed, the return on capital distributed to the financial investor LPs would be about 35 percent (i.e., $70 million/$198 million) after compensating for the GP management fees and carried interest.

Given these assumptions, one might infer that the GP return reflects an astronomical 1500 percent on con-
tributed capital (i.e., $30 million/$2 million), but that would be incorrect. Rather, the GP financial return is about $700,000 (a 35 percent return on $2 million), and the return to the GP management functions is about $29.3 million—thus, $30 million in total. Of course, both components of the GP compensation are interrelated—as the returns to all partners are dependent upon the GP’s active management role and functions.

Thus, in this typical arm’s-length early-stage investment scenario involving R&D activities, we see an answer to the core question stated at the outset:

What return should accrue to an entity that makes financial investment in intangibles development but does no relevant functions and assumes only a financial risk?

In this case, a 35 percent return was realized for financial investment alone (i.e., the return to contributed capital for the LP). But the relative return earned by the GP for its active management role (about 30 percent of the absolute return, with only 1 percent of the capital contribution) is more revealing. This should not be surprising, because, absent this role, there is no return to any financial investment, regardless of the source of the paid-in capital.

It is also possible to estimate the relative value of the management contribution on a proportional basis. If, hypothetically, the VC firm as GP had committed $100 million (i.e., 50 percent of the $200 million fund), then it may have realized a total return of $65 million, comprised of a $35 million return on its contributed capital (i.e., 35 percent of $100 million) and the same $30 million in management fees and carried interest, for example. Thus, the allocation of total gains of $100 million would be 65/35 in favor of the active investors, assuming that capital contributions are proportional.

VC firms typically do not provide such a high proportion of capital to their funds given the high value of their non-financial contributions and a reasonable supply of LP investors interested in corresponding returns. But it should be noted that, in the intercompany transactions posed by many transfer pricing structures, the active investor performing necessary functions (e.g., managing the R&D itself) usually does commit very significant investment capital.

In any event, this second example highlights the relative value contribution of an active investor in intangibles-development focused activities whose financial commitments are on par with the financial investors. A much higher proportion of the overall return goes to the entity making a financial investment and performing relevant functions and assuming nonfinancial risks.

**Earlier Investment Entails Higher Risks And Higher Potential Returns**

In early-stage finance as in general, the early bird catches the worm. In a successful startup situation, early-stage investors typically receive higher exit returns (corresponding to their risks), while later arrivals, such as investors in later financing rounds and the acquirers in exit transactions (i.e., public shareholdings in IPOs and acquiring companies) experience progressively lower returns by comparison (in terms of a percentage of the amount invested or purchase price).23 Of course, these later investments are inherently less risky, as the company’s projects have met with known success since the early-stage investments were made.

At least in the long term, the higher returns realized by VC funds overall can be attributed in large part to their early-stage investments. For example, for the 15 years ending in December 2012, aggregate “end-to-end” returns on U.S. venture capital funds (including liquidated partnerships) were 24.7 percent for the total Venture Capital Index. But the US-VC Early Stage Index return was 68.8 percent, while the Late & Expansion Stage (Combined) Index was 8.6 percent, in contrast, for the same period.24

It is also observed that when later-stage investments are earning a higher return than early-stage investments, overall VC returns are lower; hence, the notion that early-stage investment drives longer-term high returns experienced overall by the VC industry. Finally, it must be noted that expansion and later stage returns are generally not possible without early-stage funding in the first place.

Of course, favorable returns to VC investment are ultimately observed when the fund exits an investment through either an IPO or an acquisition. Thus, if an established company acquires a VC-funded company, then its acquisition price (i.e., its investment) represents the often 2x, 4x or higher returns experienced by the earlier stage investors.

**Early-Stage Attributes at Arm’s Length**

So far, we see several characteristics (“early-stage attributes”) that relate both to overall returns from early-stage investment and to the relative allocation of returns between active versus financial investors:

- A few very successful individual investments (e.g., with 2x to 4x or higher returns) account for the high overall returns for successful VC funds.
- One or more successful exits along with a larger number of break-even and/or losing investments can produce a successful VC portfolio.
- A successful VC fund may yield 30 percent to 50 percent returns (i.e., over total paid-in capital) for the LPs and GP combined, before management fees and carried interest to the GP.
- Customary GP management fees (e.g., 1-2 percent of committed capital) and carried interest (e.g., 20 percent of net value after paid-in capital) result in higher returns for GPs relative to financial investors.
- Assuming proportional capital contributions between GP and LPs (for illustrative purposes) would potentially produce a 65/35 allocation of total fund returns.

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23 Venture capital is typically categorized into four general stages of financing for a VC-funded company: 1) seed stage, 2) early stage, 3) expansion stage, and 4) later stage. These may be called investment “rounds” as well—while seed and early-stage funding usually only occur once, there may be more than one round in later stages, or such stages may not occur at all, as when an early-stage company is acquired.

24 Press Release, Cambridge Associates and NVCA (May 28, 2013) at 1. The measurement of returns to early vs. expansion and late-stage funding is less clear in shorter periods and periods in which funded company exits such as IPOs are more limited, such as during the recent financial crisis and its aftermath.
in favor of the active investor GP, given other assumptions above.

Attributes 1 to 3 above primarily relate to the high risks and rewards associated with early-stage investments as a general matter. Such returns are available to both the active investors (GP and entrepreneur/ foundera) and early-stage financial investors (LP)—assuming conditions that are consistent with early-stage profiles discussed above.

Thus, timing and related risks come crucially into play. But the circumstances necessary to identify and access these investment opportunities are also unique. Entrepreneurs, VC partners (GPs) and highly qualified financial and institutional investors (LPs) are uniquely situated and/or possess attributes that yield them such opportunities. This rare combination of attributes is also brought together by the management skills of the fund’s GP (the VC partners). Thus, such early-stage investments are not widely available to investors at large.

Furthermore, attributes 4 and 5 illustrate the division of returns between an active investor GP and purely financial investors (LPs), which are clearly favorable to the GP’s active role, related risks, and functions.

Finally, when these five attributes hold, they should also be seen interdependently. The active early-stage investor (a VC firm) expends its energy on seeking early-stage companies because of their high potential returns—opportunities with mature or later stage development are not as attractive.25 Additionally, active investors and highly qualified financial investors also seek each other—essentially for reasons already discussed.

**Intercompany Examples Reward Early-Stage Returns to Late-Stage Investors**

Certain controversial MNC affiliate intangibles transactions suggest that transfer pricing valuation has had a tendency to mismatch returns with regard to the allocations of functions and risks seen in the arm’s-length early-stage investment examples discussed above. Though only a limited amount of publicly available information is available on these high-profile transactions, the details provided suggest two (usually simultaneous) characteristics that would be highly improbable at arm’s length:

- Later stage investors appear to realize higher returns than do early-stage investors for investments in the same ongoing R&D activity; and
- Financial investors (or affiliates situated as such) appear to realize higher returns than affiliates clearly positioned in the active investor role and controlling the R&D activity.

For example, at a recent hearing, Apple’s CEO was criticized by U.S. Sen. Carl Levin (D-Mich.) for engaging in tax avoidance by transferring the non-U.S. market rights to develop R&D intangibles to affiliates based in (low-tax) Ireland—though 95 percent of the R&D activities are performed in the United States.26 Of course, such transactions are not unique to Apple; they are common among MNCs in high-technology industries. In other similar hearings in the United States and United Kingdom, Google, Microsoft, Amazon and other companies were also questioned on the subject.27

Sen. Levin described Apple’s R&D cost sharing arrangement in some detail. Since the initial transfer of R&D rights in intangibles, Apple Ireland and Apple Inc. (the U.S. parent, or “Apple US”) shared R&D costs over a period of several years (from 2009 to 2012). During that time, Apple Ireland paid about $5 billion in shared R&D costs, while Apple US paid about $4 billion—about a 56 percent to 44 percent split of the R&D costs—costs which correspond to financial investments made by the U.S. and Irish affiliates in R&D during the period (i.e., without regard to the value contributed by Apple Inc. in its role in managing the R&D itself).28

During the same period, Apple Ireland’s R&D investments were rewarded with profits in the amount of $74 billion, while Apple US realized $38 billion in profits related to the same R&D programs. Thus, in terms of absolute dollars, Apple Ireland made $36 billion more than Apple US (i.e., nearly double Apple US’s profits) in areas related to the same R&D activity.29

The published details of the hearings do not reveal whether Apple Ireland made other investments (such as an initial buy-in payment) or what the value of other such contributions may have been. Assume, for example, that Apple made a buy-in equal to 18 percent of its R&D cost sharing payments20 in the subsequent four years. Its total R&D investments for the period would have been $5.9 billion, on which its $74 billion in profit would have reflected greater than a 12x return—an extraordinary result for a financial investor that does not manage or control the R&D activity, for making later-stage investments in Apple’s long tradition of successful R&D.31

Separately, in U.S. Tax Court in 2009, Veritas Software Corp. won a favorable decision related to its Irish affiliate’s $124 million buy-in payment for rights to invest in U.S.-based R&D activities beginning in 1999. The IRS had valued the R&D intangibles transfer at $1.7 billion, by calculating Veritas US’s forgone taxable income related to R&D resulting from the allegedly inadequate buy-in payment.32

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25 National Venture Capital Association Yearbook (2013) at 7, which also notes that to a VC partner, “A concept that promises a 10 or 20 percent improvement on something that already exists is not likely to get a close look.”

26 Offshore Profit Shifting and the U.S. Tax Code—Part 2 (Apple Inc.): Hearing Before the U.S. Senate Permanent Sub-
From 1999 to 2006, Veritas Ireland contributed $676 million in R&D cost sharing payments—thus investing a total of $800 million (including the buy-in) in the R&D activities over the seven years through 2006. This case will be discussed further below, but assume for the moment that as of 2006; the present value of Veritas Ireland’s investment was no less than 2x its total combined R&D investments (i.e., $1.6 billion divided by total buy-in and R&D investments of $800 million).

There is irony in seeing such outcomes in these two examples. In each, extraordinary returns are realized on late-stage, financial investment on the part of the foreign affiliate. The affiliate returns do not only exceed the high range of average returns realized by VC funds overall (i.e., 30 percent to 50 percent, taking into account winning and losing investments). They actually reflect the extraordinarily high returns of the minority of individual VC investments that actually succeed (e.g., 2x to 12x returns over paid-in capital). In this uncanny outcome, each Irish affiliate experiences better results than early-stage investors can reasonably hope for given an entire VC fund portfolio with a couple winners and many non-winners. The affiliates are batting 1000.

Among the pivotal issues in Veritas was a common taxpayer argument that contributes to the effects noted above. The taxpayer experts imposed a limited duration on income streams resulting from the transferred technology and the rights to further develop and own it. At odds with the actual facts, a scenario was assumed under which the continuing R&D was stopped completely and the intangibles “withered on the vine”—even though the express purpose of the intercompany R&D agreements was to further develop the existing intangibles and no ceasing of R&D was contemplated or ever took place.

Contrary to this hypothetical, the transferred assets included commercially successful and proven late stage technology that remained under continuous development. Ironically, however, the taxpayer’s analysis appeared to reflect an early-stage (i.e. low) price—resulting in a return to Veritas Ireland that reflected early-stage rewards without corresponding risks. Such rewards can only come at the expense of the transferor—Veritas US—the active investor and owner that continued to manage the R&D in any event. The IRS arguments in this regard were unsuccessful—though they attempted to demonstrate an approach that is more consistent with evidence regarding early-stage technology investments at arm’s length.34

**Early-Stage Scenarios Operate In Parallel**

To illustrate the general progression of the two scenarios for early-stage investment described above, the example below places each form on the same timetable spanning eight years, with a description of typical stages of investment pertaining to each. As will be seen, the “internal project” and “startup” scenarios ultimately converge as the established company (Company A) makes investments in internal R&D as well as in “external R&D” by acquiring the VC-funded startup—thus providing the exit returns to its early-stage investors.

**First Two Years**

- Established Company A begins development on Product X by leveraging ongoing R&D activities with the goal to launch within eight years. The project requires breakthroughs in four key technologies, Technology 1 through Technology 4, in addition to enhancements of existing technologies. The Project X plan promises significant returns on R&D investments.
- Startup Y achieves initial breakthroughs on its patent pending Technology 5 development. The startup is funded initially by seed capital and then an early-stage round by a VC fund. A total of $5 million in capital is raised, with a post-funding valuation of $10 million.

**Years Three Through Five**

- Project X is making good progress with respect to technologies 1 through 3; Technology 4 is lagging in meeting technical requirements and faces competing alternatives that are patented, including Technology 5 under development by Startup Y.
- Startup Y is issued the first of several patents for Technology 5 and is in pre-commercial tests, using it as an enabling technology in beta products for Company B, a competitor to Company A in areas related to Project X. Startup Y closes expansion funding with its early-stage VC fund taking the lead in a $10 million second round. The pre-round valuation is $25 million; post-round valuation is $35 million.

**Years Six Through Eight**

- Project X is on track in all respects except Technology 4 development, which does not achieve the technical requirements of Product X.
- Aware that Startup Y’s Technology 5 is a patented, superior alternative to Technology 4, Company A seeks to acquire Startup Y. The acquisition would enable an on-time launch of Product X, which would also be superior to Company B’s next generation products, due in part to Company A’s exclusive access to Technology 5.
- In early Year 6, Startup Y succeeds in developing Technology 5 for wider commercial use. It raises a $25 million third round to develop new markets for embedding in products like those offered by companies A and B and others, and to develop a generation of standalone solutions. Pre-funding valuation is $55 million; post-funding $80 million.
- In Year 7, Company A buys Startup Y for $160 million. Product X is a success, beating Company B to the market and gaining new market share. Startup Y’s investors realize an average return of 4x paid-in capital, making the investment a positive performer in the fund’s portfolio.

In the example above, the active early-stage investors in the two converging scenarios are as follows:

- Company A with respect to internal projects to develop Technology 1 through Technology 4, and

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33 Id., at 23.
34 In fact, the Veritas decision notes that the U.S.-based company was already the largest storage software company in the industry by the late 1980s, before the intangibles were transferred to Veritas Ireland.
Start Y (its founders and its VC investors) for Technology 5.

In contrast, by acquiring Startup Y, Company A’s investment in Technology 5 is after later-stage venture-backed funding. In fact, it represents the exit return to all investors in Startup Y. Here, the startup essentially represents “external R&D”—but Company A’s investment is much lower risk, because of the stage of development of the Technology 5 (with its known success and commercial opportunities). The early-stage risks and returns inure to Startup Y investors—as reflected in the acquisition price paid by Company A.

This illustration can be further adapted to reflect the critical timing and risk mismatch that appears to occur in high-profile intercompany intangibles transactions. That is, affiliates that acquire R&D rights in technology often earn returns that resemble early-stage investor returns, even though the R&D has already demonstrated substantial success by the time that the intangibles transfer takes place. In such cases, the returns to the affiliate would be more accurately measured according to later-stage or post-exit returns.

Thus, for example, let’s assume that Company A undertook intercompany R&D cost sharing involving Technologies 1, 2 and 3, beginning in Year 6 and following this common pattern. The transferred rights in the technologies are improperly valued by the taxpayer as if it were Year 1, though the technologies are in late stages of development (five years hence). For example, assume under this arrangement that the rights in each technology are transferred from the parent (P) to a lower tax affiliate (S) for $8 million in Year 6 in each case.

Assume as well that Technology 5 is closely comparable and makes a comparable value contribution to Product X as is the case with each of the three transferred technologies. In this case, the value paid for Technology 5 in Year 7 would appear to be a more appropriate benchmark for buy-in transaction purposes (in each of the three cases) than Year 1, as at that point in time it reflects the current stage of development of Technologies 1, 2 and 3.

In fact, two arm’s-length transactions involving Technology 5 justify a higher price for the transferred intangibles—the third-round VC investment in Year Six ($80 million) and the acquisition in Year 7 ($160 million). In reducing the buy-in investment from S to P by 90 percent or more, S extracts the return due to P for its earlier stage investments in technologies 1, 2, and 3. Of course, at arm’s length this is not possible, and Company A therefore pays the early-stage investors in Technology 5 a full return in line with their risks when it buys Startup Y.

It need not necessarily be the case that Company A acquires Startup Y to illustrate the main point in the example. The convergence of the “internal project” and “startup” scenarios in this case was chosen simply for convenience, though the sequence of events itself is realistic. Of course, however, Startup Y could just as easily be acquired as “external R&D” by another company or investor.

Actually, technology from prior company acquisitions is frequently contributed to intercompany R&D cost sharing arrangements, adding further to controversy surrounding the relative returns that should attribute to intangibles developed or acquired by the parent company when they are transferred to lower tax affiliates.

Disputes frequently arise in this area as well, but there can be no dispute that the subject acquisitions themselves were arm’s-length deals and that the acquisition price reflects an exit value that enables prior investors in these technologies to realize returns on their investments. These actual occurrences shed further light on the importance of the early-stage timing aspect of early-stage investment returns at arm’s length. Put simply, early-stage returns do not attribute to those investing during late stages or post-exit.

**Conclusion**

In summary, returns that attribute to either form of early-stage investment (i.e., an internal project or a VC-funded venture) inherently relate to greater risks and potential returns than do later-stage investments. This is the case because later-stage investors have the benefit of knowing with certainty how the early-stage investment has performed in the interim, thus removing significant uncertainty and risks. Furthermore, as seen in early-stage attributes 4 and 5 discussed above, the allocation of returns on early-stage investments is naturally favorable to those parties that perform key functions along with their capital contributions, consistent with the OECD intangibles project’s most recent revised draft on intangibles transactions.

The early-stage attributes discussed in this paper are also contextually relevant in many challenging transfer pricing contexts involving what some call “hard to value intangibles,” often adding to the complexity of BEPS issues. For example, the five “early-stage attributes” align closely to pharmaceutical R&D investments, which also reflect portfolios yielding a few winners that more than compensate for the many less successful R&D investments. They also relate to intangibles-intensive industries comprising the digital economy, where many elements of IP and other intangible contribution produce services, software, music and media offerings to global consumer markets, often without any element being easily attributable to a single physical location. Thus, in the 21st century, taxing authorities globally are increasingly witnesses to tax base erosion and profit shifting (i.e. BEPS).