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Introduction

Dear readers:

The Global Transfer Pricing practice of Deloitte Touche Tohmatsu Limited is pleased to present this collection of articles on transfer pricing for industries, the first *International Tax Review* guide of its kind.

Transfer pricing practitioners are increasingly focused on industry-specific factors driving the pricing of intercompany transactions. We expect this trend to accelerate. In response to this shift in the marketplace, Deloitte has formed an extensive Transfer Pricing Industry programme, integrating Deloitte Tax's technical knowledge with the deep industry insights of Deloitte Consulting.

Traditionally, transfer pricing issues are considered either in terms of geography – analysing a country's transfer pricing regime – or by topic, such as the transfer pricing of intangibles or documentation. In this guide, we look at transfer pricing through the prism of industry, recognising that specific industries are particularly affected by some aspects of transfer pricing that do not pose significant challenges for others.

In this guide, we include articles on seven distinct industries: technology, energy, life sciences, media and entertainment, consumer products, manufacturing and financial services.

Our first article addresses the issues high-tech companies face when they enter into cost sharing arrangements (CSAs) to develop intellectual property, as they frequently do. Under the cost sharing rules in the United States, when one party contributes pre-existing intellectual property (IP) to a CSA, the other party is required to make an arm's-length payment for the right to exploit those assets. The regulations provide several methods for valuing the contributed pre-existing IP, which involve determining the useful life of those assets. However, there is some disagreement within the transfer pricing community as to how useful life is determined, an issue that becomes even more pronounced in the case of high-tech companies, which some analysts believe operate in an environment of "instant obsolescence."

IP is also an important feature of oil and gas companies. Transfer pricing regimes usually require that when IP is transferred across borders, appropriate compensation must be paid to the owner of the IP. But that is sometimes easier said than done in the oil and gas industry, where intangibles are often developed by groups including scientists at universities, industry consortia and oilfield services firms. In an environment where IP ownership may be ambiguous, allocating a price to the IP poses a challenge.

The life sciences industry also must address transfer pricing issues involving intangible property, but in a somewhat different context. Historically, life sciences companies managed their IP on a product or portfolio basis, treating all constituent parts of the IP – patents, technical data from clinical trials, regulatory approvals, manufacturing know-how, and trademarks, for example – as a bundle of rights. Because of changes in the industry, the transfer pricing challenge today, for many companies in this sector, is to be able to identify and evaluate the different component parts of the IP product separately.

In the transfer pricing world, the lack of comparables is a common taxpayer complaint, but in the media and entertainment industry, this shortage is exacerbated by the fact that the application of the comparable uncontrolled transactions method is based primarily on internal comparable transactions that are not publicly disclosed. To shed some light onto what drives revenue and profitability in the film industry, Deloitte collaborated with Nash Information Services to analyse movie data and calculated three indicators from a studio’s perspective: total revenue to studio, total cost to studio, and return on investment. The results of this research are presented in our article in this guide.

Perhaps no industry has undergone more notable changes in recent years than the consumer products sector, a transformation driven primarily by the advent of the internet and mobile devices, which have altered how consumer product manufacturers and retailers operate and interact with consumers. Conforming to traditional transfer pricing structures in the age of digital globalisation could result in unintended tax consequences, from tax assessments to penalties, or even double taxation. Our article in this guide provides some

insights into how to navigate the new world of a digitised consumer products industry.

The manufacturing sector, by virtue of its size and influence on the global economy, and because it involves most types of cross-border transactions – transfers of tangible and intangible property, the provision of services, and financial transactions – is of particular interest to global tax authorities. Our article in this guide discusses key trends in five primary industries in the manufacturing sector, and provides an overview of new transfer pricing challenges arising from the transformation of the sector.

Finally, our article on transfer pricing in financial services explores the reasons why the industry has gone, in the span of five years, from being “one of the last areas a tax authority would challenge,” to one of the first ones to be reviewed.

We hope this innovative, industry-driven approach to transfer pricing provides you with useful insights into leading practices for your business. If you have any questions, or would like to engage in an industry-focused transfer pricing discussion, please contact the Deloitte transfer pricing professionals featured in this guide.



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PCT valuations of technology intangibles: perpetual or finite?

The evolving nature of technology means that markets change over the useful life of a technology. **Michael Bowes** and **Jay Das** address the importance of adapting to new performance characteristics and predicting how and when an upper limit of a given technology is reached.

High-technology companies frequently enter into cost sharing arrangements (CSAs) to develop intellectual property (IP) and facilitate expansion into foreign markets. When one party contributes pre-existing IP to a CSA, the other party is required under US transfer pricing regulations to make an arm's-length payment for the right to exploit those assets. The regulations under Treas. Reg. §1.482-7(g) provide several methods for valuing the contributed pre-existing IP.

There is some ambiguity in the transfer pricing community on how the useful life of the pre-existing contributed assets impacts valuation under the cost sharing regulations. Some believe the stipulated methods cause taxpayers to assume a long-lived asset, one that generates returns in perpetuity. Others believe the regulations allow for IP valuations over a finite asset life. These two regulatory interpretations may have a significant impact on the valuation and the resulting tax consequences of the transaction. Not surprisingly, the ambiguity around this issue has caused disputes during both tax and financial statement audits.

The ambiguity has been particularly frustrating for technology companies, which face an accelerated rate of technological change and rapidly shrinking product and technology lifecycles. Some industry analysts believe high technology companies operate in an era of "instant obsolescence", where equilibrium is viewed as a state of stagnation and irrelevance (see, e.g., the Jim Carroll blog "Innovating in the Era of Instant Obsolescence" at www.jimcarroll.com and the article "The Velocity of Obsolescence" by Lewis Gersh, Forbes, July 29 2013).

It does not require much imagination to see that these industry dynamics are inconsistent with the notion that technology IP is long-lived, let alone perpetual. It's therefore important for practitioners working with technology companies to understand (i) how IP life should be treated within the cost sharing regulations; and (ii) how industry dynamics impact the useful life of technology intangibles (meaning generally a company's portfolio of process and product technologies, as well as its specialised know-how and knowledge).

This article:

- Summarises our interpretation of what the cost sharing regulations say about the treatment of useful life;
- Presents a model used by academics and technologists for estimating how technology intangibles are expected to evolve over time; and
- Provides some practical considerations for transfer pricing practitioners who provide services to technology companies.

Cost sharing regulations

The cost sharing regulations, at first glance, appear vague on how the useful life of pre-existing intangibles should impact the valuation of a platform contribution transaction (PCT). We believe this perceived vagueness has contributed to the ambiguity regarding whether PCT valuations generally should consider the useful life of an intangible. However, the regulations, as we will see, are quite explicit and practical with respect to the treatment of IP life within the context of a PCT valuation.

For example, consider the references under Treas. Reg. §1.482-7(g)(2)(ii)(A), which state:

“...each controlled participant’s aggregate net investment in the CSA Activity...is reasonably anticipated to earn a rate of return...appropriate to the riskiness of the controlled participant’s CSA Activity over the entire period of such CSA Activity.”

“If the cost shared intangibles themselves are reasonably anticipated to contribute to developing other intangibles, then the period described in the preceding sentence includes the period, reasonably anticipated as of the date of the PCT, of developing and exploiting such indirectly benefited intangibles.”

One interpretation of these references is that valuations should be performed over the life of the CSA. That interpretation is inconsistent with the example in §1.482-7(g)(2)(ii)(B), which illustrates the principles summarised above. In that example, parent and subsidiary enter into a CSA to develop a next generation software programme. The new programme will be based in part on a pre-existing programme that was developed solely by parent. Sales of the new programme will begin in year two; all the technologies embedded in the new program will be obsolete by the end of year 10. Parent and subsidiary apply a residual profit split method, of the variety described in Treas. Reg. §1.482-6 (whereby residual profit is divided between parent and subsidiary pro rata to their relative amortised historical and future R&D spending) over a four-year useful life to value parent’s PCT. Under this method, according to the example, parent will receive none of the residual profit after year four; as a result, subsidiary’s aggregate net investment in the CSA is at a rate of return higher than what would be achieved under a more reliable method.

In this example, there is no residual profit to share after year 10, because the pre-existing and any newly developed technologies are obsolete. Thus, the implied rate of return for subsidiary is higher than it would have been otherwise not because parent and subsidiary did not use a perpetual valuation horizon, but because the taxpayer assumed a four-year life when the intangibles have a 10-year useful life. As a result, the implied rate of return for subsidiary must be higher over the life of the CSA.

It is also illustrative to use the facts in the above example



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to examine the impact on parent and subsidiary’s implied rate of return under a perpetual valuation horizon. Had the taxpayer implemented a valuation approach over a perpetual horizon, parent’s implied rate of return would have been higher and subsidiary’s rate of return lower than they would have been otherwise, since future residual profit after year 10 is no longer dependent on any pre-existing technologies.

Examples 3 and 7 in Treas. Reg. §1.482-7(g)(4) also support this contention. Example 3 applies a finite useful life in an application of the income method. The example reads:

“...it is reasonably anticipated that FS (foreign subsidiary) will have gross sales of \$1000X in its territory for 5 years attributable to its exploitation of version 1.0 and the cost shared intangibles, after which time the software application will be rendered obsolete and unmarketable by the obsolescence of the storage medium technology to which it relates.”

Example 7 under paragraph (g)(4) describes the condition under which the use of a “terminal value” is appropriate. The example reads:

“... FS (foreign subsidiary) and USP (US parent) do not anticipate cessation of the CSA Activity with respect to Z (the pre-existing technology) at any determinable date.”



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Examples 3 and 7 under Treas. Reg. §1.482-7(g)(4) and the example in (g)(2)(ii)(B) do not support the position that all PCT valuations should be done assuming a perpetual life to the underlying assets. Example 3 makes clear when a finite life application of the income method is appropriate. Moreover, example 7 demonstrates for taxpayers that a perpetual-life model is appropriate only when the taxpayer cannot anticipate when the contributed asset will stop benefiting the CSA. Finally, the example in (g)(2)(ii)(B) illustrates principles the IRS is trying to capture in §1.482-7 (g)(2)(ii)(A); namely, that taxpayers match the valuation horizon with the period of time that platform contributions are reasonably anticipated to benefit the CSA to confirm both parties' implied rate of return is consistent with their activities and investments under the CSA.

In addition to these examples, the cost sharing regulations do not indicate that taxpayers cannot use a finite useful life for purposes of valuing a PCT.

Valuation inputs involve some level of uncertainty, and the regulatory framework is complex and subject to interpretation, specifically given the lack of legal precedents. However, Tax Court observations on the *VERITAS Software Corp. v. Commissioner* case (133 T.C. No. 14) provide guidance on an appropriate valuation horizon, notwithstanding the IRS's action on decision (AOD) in the case. The Tax Court acknowledged that the regulation applicable at the time "requires a buy-in payment to be made with respect to the transfer of 'pre-existing intangible property'", but it also stated that "no buy-in payment is required for subsequently developed intangibles". Further, the IRS has not clarified its position with respect to the valuation horizon outside of a vague reference in the *Veritas* AOD, wherein it seems to validate the concept of a finite useful life. The IRS also indicated that the Tax Court had erroneously concluded that the IRS was contending that the pre-existing IP had a "perpetual" useful life (*Veritas* AOD, footnote 4).

Although the *Veritas* transfer pricing case was decided under the old cost sharing regulations, the underlying economic principles could be deemed to apply to the new cost sharing rules. Specific to the technology industry, the Tax Court indicated that "...product technologies in hi-tech industries are short-lived and require constant update and renewal". The court also concluded that "the useful life of the pre-existing technology did not last into perpetuity because at some point it became obsolete", a topic we will flesh out in the next section.

To recap, the regulations appear vague on the issue of useful life, and the reference to "the entire period of such CSA Activity" in paragraph §1.482-7 (g)(2)(ii)(A) may be misleading to taxpayers. However, the examples presented above are neither vague nor misleading. They indicate that a taxpayer's fact pattern should determine the valuation horizon. Arbitrarily valuing fixed-life intangibles using a perpetual horizon ignores a taxpayer's underlying facts and arguably violates the arm's-length standard, as outlined in Treas. Reg. §1.482-1(b)(1), since no third party would pay for rights beyond the exploitation period.

Technology evolution and diffusion

This section will discuss the two primary factors affecting the useful life of any given technology – technology evolution and technology diffusion.

Technology evolution

We use a simple S-curve model to illustrate how technology IP evolves over time. S-curves, sometimes referred to as growth curves, are one of the tools used by academics and technology forecasters to predict how and when an upper limit of a given technology is reached.

Technology evolution refers to changes in performance characteristics of a specific technology over time (Narayanan,

2001). History shows that once a new technology is introduced, growth in performance characteristics tends to be slow, followed by a period of rapid growth, followed again by a period of decline as the technology plateaus (Martino, 1993). Narayanan (2001) describes a technology's evolution through the following four stages: emergence, rapid improvement, declining improvement, and maturity. These stages are illustrated in Figure 1, along with a simple S-curve that maps the changes in performance characteristics over time.

In the early stages of development, a technology operates far below its potential, due largely to a lag in learning processes. Once that lag is overcome and the know-how associated with a given technology becomes better understood, experience accumulates, resulting in high growth in the technology's performance characteristics. The rapid growth enjoyed during the second stage slows in stage 3 and eventually plateaus in stage 4 as the technology approaches its limit.

According to Narayanan (2001), while the trajectories for various technologies differ, "virtually all" technological developments display a similar pattern of growth as that captured by the general S-curve in Figure 1. A host of other researchers have also recognised the relatively stable pattern of growth in technology development predicted by the S-curve (see, e.g., Sahal, 1981; Martino, 1993; Vanston, 1996; Norman, 1998; and Roper, 2011).

S-curves can also be used to illustrate technological progression. Whereas technology evolution refers to changes in the performance characteristics over time, technological progression describes the process by which new technologies emerge, making older technologies obsolete (Narayanan, 2001). Figure 2 illustrates technological progression.

The performance characteristics of Technology 1 improve over time along its individual S-curve until the technology limit is reached. This is the point in time when future improvements are no longer possible; every technology is

Figure 1: Stages of evolution, S-Curve

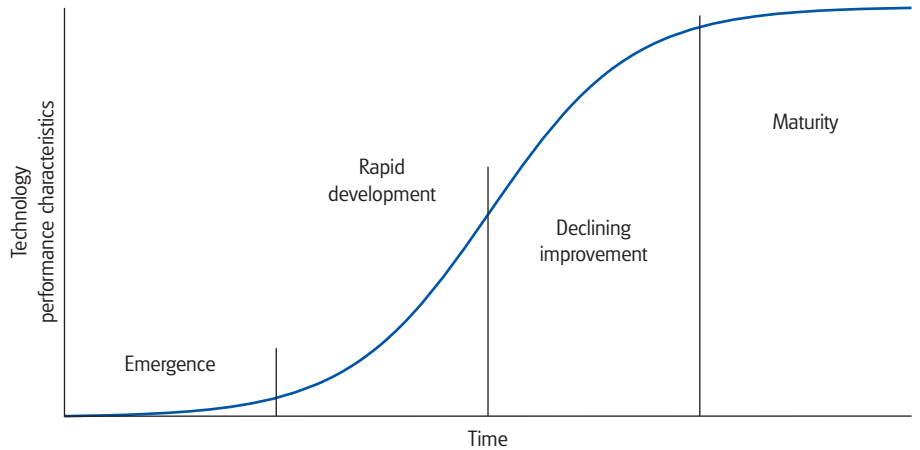
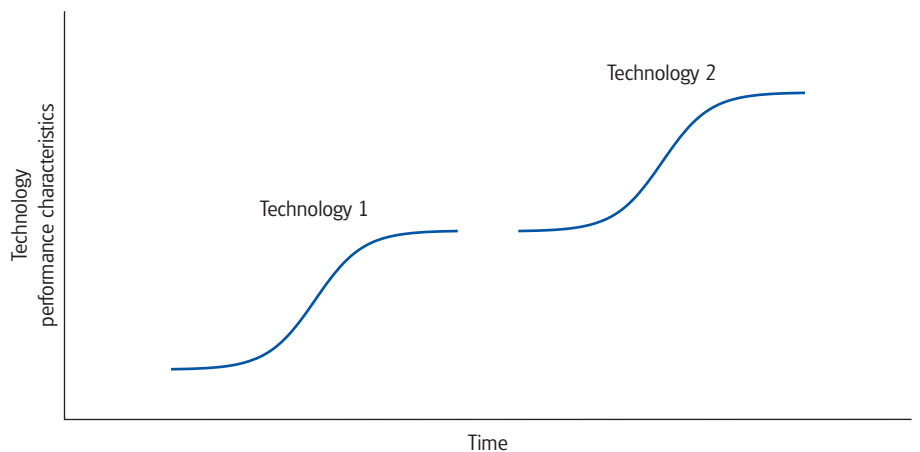


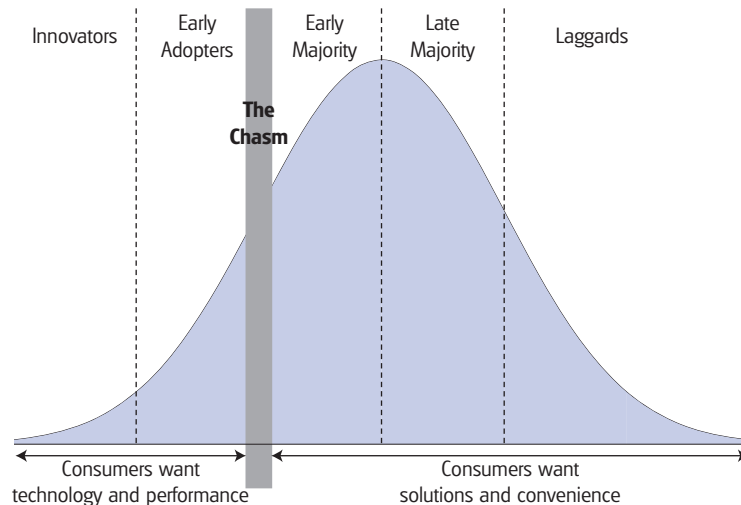
Figure 2: Technological progression



associated with a finite potential for improvement in its performance characteristics due to certain physical laws that can be pushed only so far (Narayanan, 2001 and Martino, 1993). Once a technology has reached its potential, improvements in characteristics have to wait until the next radical innovation. The S-curve for Technology 2 represents the next breakthrough, which makes the prior version of the technology obsolete.

The illustration in Figure 2 suggests that firms do not release the next technological breakthrough or radical innovation until they have exhausted all potential improvements from an existing technology. This dynamic may be true of some product-based companies, but as we'll see later in the article, high-technology companies pursue radical breakthroughs long before an existing technology has reached its potential.

Figure 3: The technology adoption life cycle



Technology diffusion

For our purposes, technology diffusion is the process by which consumers adopt a particular technology over time. While several researchers have studied diffusion (see Rogers (2003) for a review of this research), the model we will adopt is described by Moore (2014) as the Technology Adoption Life Cycle (TALC), which argues that initially a technology is adopted by Innovators, then Early Adopters, then the Early Majority, the Late Majority, and finally the Laggards. Moore defines these different groups as follows:

- **Innovators** are aggressive at adopting new technologies. They sometimes adopt before a formal marketing programme has been launched. Innovators are often technologists themselves. In any given market, there are only a few innovators, but their adoption of the technology is important because their endorsement encourages other consumers in the market.
- **Early Adopters** accept new technologies early in the life cycle, but they are not technologists like the Innovators. Rather, they appreciate the benefits that new technologies offer and rely on their insight in making buying decisions.
- **Early Majority** are similar to Early Adopters in their appreciation of the benefits technology offers, but they formally adopt based on a keen sense of practicality. They understand that some technologies are passing fads, so they wait and see how other consumers are making out before formally adopting.
- **Late Majority** wait until a technology has become an established standard before adopting. They tend to purchase new technologies only from large, well-known companies that offer adequate support.

- **Laggards** want nothing to do with new technology, for both personal and economic reasons. They adopt technology only when it is bundled deep within another product.

According to Moore, the TALC model has become central to the entire technology industry's approach to marketing, because the high-tech industry, more so than other industries, regularly introduces radical innovations. The TALC model is illustrated in Figure 3 using a simple bell curve, where the area under the curve reflects the number of users who have adopted a given technology.

When a technology is first introduced, it cannot possibly meet all the needs of its consumers. Innovators and Early Adopters are willing to accept a new technology in spite of these shortfalls and the high purchase cost. As the technology matures, it offers better reliability, more technical support, and a lower price point. As a result, new types of consumers continue to enter the market. Thus, the TALC describes the overall progression or diffusion of technology adoption through the entire consumer base.

The grey shaded area is what Moore refers to as "the chasm", which illustrates two important ideas. First, the chasm represents a transition point where the technology, as Norman (1998) suggests, begins to satisfy the basic needs of the average consumer. In other words, the technology has less to do with performance and more to do with convenience. Second, the chasm reflects a time in a technology's useful life when many high-tech companies fail because they misunderstand the incompatible differences between the Early Adopters and Early Majority. To successfully pass the chasm, a high-tech company must transition to a product company, focusing more on ease of use, convenience, brand, and price and less on technological

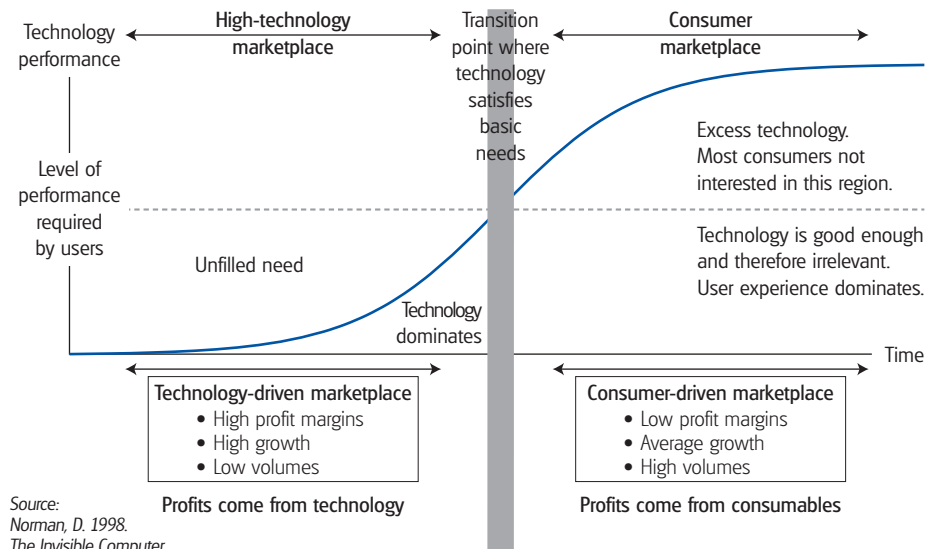
performance. According to Moore, this is a difficult transition for an industry dominated by technological advancement and higher levels of performance.

We can use the concepts of the TALC model and S-curves to illustrate how markets and companies change over the useful life of a given technology. This is presented in Figure 4.

The figure presents a simple S-curve that maps performance characteristics over time. The grey shaded area again reflects the chasm: the point in time when technology begins to satisfy the basic needs of the average user. To the left of the chasm, the consumer base consists of Innovators and Early Adopters; to the right, the Early and Late Majority and the Laggards. When a technology passes the chasm, consumers no longer buy based on technological performance; buying decisions are based on brand, reputation, convenience, user experience, price, and reliability. As the technology continues to mature, competition rises and substitutes emerge, which cause profit margins to drop. As a result of these changes, the company must change itself if it is to survive the transition from a high-technology company to a product-based, consumer-driven company.

Both Moore and Norman (2014 and 1998, respectively) recognise that high-technology companies often do not cross the chasm to a products-based company because either (a) they do not possess the organisational know-how to compete in a consumer-driven market; or (b) they strategically choose to do what they do well, which is innovate. Both of these reasons help to explain the high rate of technological introduction we see in the industry, and why some analysts believe technology companies operate in an era of “instant obsolescence”. Utilising these concepts, Figure 5 illustrates the technological progression of a high-tech company that does not cross the chasm, and instead opts to strategically target the Innovators and Early Adopters through a series of radical innovations.

Figure 4: Transition from technology-driven to consumer-driven markets



Source: Norman, D. 1998. *The Invisible Computer.*

Figure 5: Technological progression for a high-technology company

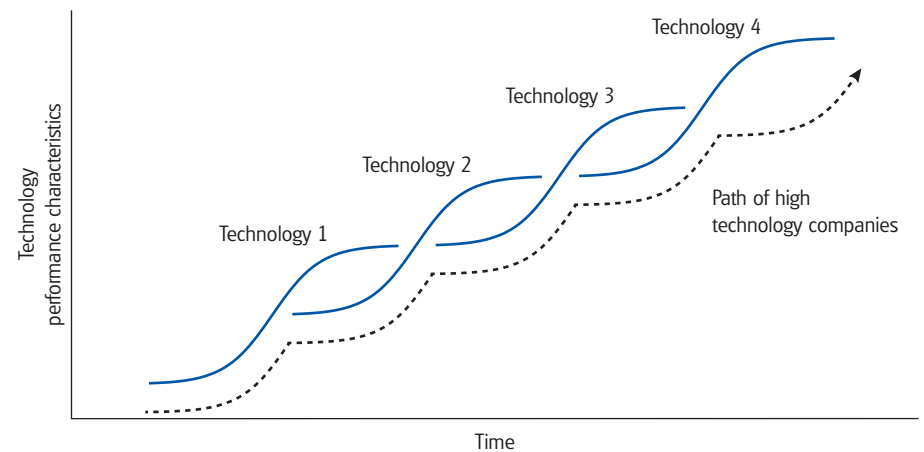


Figure 5 illustrates a typical trajectory for a high-technology company. A series of different S-Curves are presented, which again map performance characteristics over time. Each S-curve represents a new radical innovation, making the prior version of the technology obsolete. The company plans its technological breakthroughs to more or less confirm it continues to serve the Innovators and Early Adopters in technology-driven markets, earning high profits. This path is sometimes referred to as “jumping the S-curve” or “riding the S-curve”.

The path of a high-technology company illustrates two important points. First, it helps to explain why high-tech

companies have breakthroughs long before a solution has reached its technological limit. And second, it offers a rationale for the high rate of radical innovations we see in the high-technology industry.

The above discussion on technology evolution and diffusion, and the accompanying illustrations in Figures 1 through 5, are an oversimplification of what is otherwise a complex set of industry dynamics. But simplifications are useful if they capture the essence of the phenomenon and help to explain market behaviour, which is what we've tried to do here.

Transfer pricing implications

So what does this mean for the transfer pricing practitioner who is valuing a contribution of pre-existing technology IP? There are several important implications practitioners should be aware of:

- The cost sharing regulations do not require PCTs to be valued in perpetuity. The regulations are flexible, allowing the underlying facts to dictate the period over which the valuation is performed.
- Technology IP has a finite life and generally displays a pattern of growth as that captured by the S-curve.
- Technology diffusion tends to follow a progression whereby a solution is first adopted by Innovators, then Early Adopters, then the Early Majority, the Late Majority, and finally the Laggards.
- Markets change over the useful life of a technology, transitioning from a technology-driven market with high profits to a consumer-driven market with low profits. More importantly, once a technology passes the chasm, consumers place more value on brand, reputation, convenience, user experience, price, and reliability than they do on the technology itself.

This last statement suggests that what drives a firm's profits changes over time as technologies mature. For example, consider a low-tech company that manages to cross the chasm. In the early years of the technology, profits are primarily attributable to technological performance. In the latter years, it is brand and other IP that drive profit, even

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though the technology has not yet reached its technological limit (that is, the useful life of the technology is not yet zero). An important point is that these other intangibles, the intangibles that drive profit in the latter years, may not be developed when the practitioner initially values a contribution of pre-existing technology to a CSA.

- High technology companies pursue a trajectory of jumping or riding the S-curve by regularly introducing radical innovations and strategically targeting the Innovators and Early Adopters in the marketplace.

The new black gold: Transfer pricing of intangibles in the oil & gas sector

John M. Wells,
Vitaliy Voytovych and
Firas Zebian address
technological
advancements in the oil
& gas (O&G) sector
and their global impact.

What do recent Western economic sanctions against Russia, the United States' growing energy independence, and ultra-deepwater O&G discoveries off the coast of Brazil and in the Gulf of Mexico have in common? Each of these events is driven by technological advancements in the O&G sector.

Innovations in the use of horizontal drilling, hydraulic fracturing and seismic imaging in US shale formations have allowed US oil production to climb from less than 5 million barrels per day (bpd) in 2005 to over 8 million bpd in 2014. Similarly, US natural gas production has increased to almost 12 million bpd (converted from cubic feet to barrels of oil equivalent) over this same period. While this shale boom has yet to take hold internationally, countries such as Russia are dependent on Western equipment and technology to develop their new energy frontiers, in particular shale opportunities in Siberia. This makes the Western sanctions imposed on Russia because of actions in Ukraine especially restrictive for Russia's declining O&G production, because they prohibit the export of such technology.

Western O&G expertise and seismic imaging technology have also allowed exploration & production (E&P) companies to discover and produce hydrocarbons from deeply buried reservoirs far offshore. Other technologies in the O&G sector have helped create equipment suitable for high-pressure/high-temperature deepwater environments, remote/automated drilling operations and enhanced oil recovery from mature oil fields. New processes and down-hole measurement tools are mitigating the risk of a loss of well control, such as that which preceded the Macondo disaster and the Gulf of Mexico oil spill in 2010.

Indeed, the O&G sector is replete with technology and other forms of intangible property (IP) that allow participants to access hydrocarbons from increasingly difficult environments, and more safely than ever. A stylised fact of this industry is that the research and development (R&D) expenditures that give rise to O&G IP are fairly small relative to sales, specifically when compared to R&D/sales ratios found in high-tech and pharmaceutical industries. R&D expense for "supermajor" E&P companies (the largest of the independent oil companies, or IOCs) and the largest oilfield services (OFS) providers are displayed below. Note that the supermajors have a smaller R&D/sales ratio than the OFS providers, but still spend more on R&D in absolute terms. Also, note that R&D for the whole upstream sector has increased between 2012 and 2013, a trend that has been relatively constant since 2008 (see Table 1).

Table 1

		2013 (USD in million)			2012 (USD in million)		
		R&D Expense	Revenue	R&D/Sales	R&D Expense	Revenue	R&D / Sales
Supermajors	E&P Company A	1,318	451,235	0.29%	1,307	467,153	0.28%
	E&P Company B	1,044	420,836	0.25%	1,042	451,509	0.23%
	E&P Company C	707	379,136	0.19%	674	375,765	0.18%
	E&P Company D	1,244	225,086	0.55%	1,103	249,855	0.44%
	E&P Company E	750	220,156	0.34%	627	230,590	0.27%
	E&P Company F	258	54,413	0.47%	221	57,967	0.38%
Service Providers	OFS Company A	1,174	45,266	2.59%	1,153	41,731	2.76%
	OFS Company B	588	29,402	2.00%	460	28,503	1.61%
	OFS Company C	556	22,364	2.49%	497	21,361	2.33%
	OFS Company D	265	15,263	1.74%	257	15,215	1.69%
	OFS Company E	83	9,838	0.84%	63	8,502	0.74%
	OFS Company F	112	7,126	1.58%	117	6,151	1.90%

Sourced from company Forms 10-k. Deloitte Tax LLP internal policies do not allow the use of company names without prior authorisation. The above table summarises the major players in the E&P and OFS segments.

O&G companies must deploy the IP generated by this R&D across the globe so that it can be used by their local operating companies. Transfer pricing and tax regulations dictate that where there are cross-border transfers of IP, appropriate compensation must be paid to the IP owner. But while transfer pricing methods for IP transactions are well developed for most industries, applying such methods in the upstream O&G sector can be complex. Intangibles used by E&P companies have often been developed in tandem with petroleum engineers and geoscientists at major universities, industry consortia, and oilfield services firms. These non-proprietary assets are typically shared freely with joint venture partners and national oil companies (NOCs) in the quest for hydrocarbons, most often on a royalty-free basis. Because of the ambiguity of ownership and the openness by the industry to share know-how, leading practices and technology, allocating a price to this IP may remain convoluted.

Further complicating intercompany IP valuations is the fact that there are so many different services, processes and IP coming together at the well site to produce hydrocarbons. Few of these assets and activities are significant on a stand-alone basis; it is therefore difficult to value their separate contributions. In other industries, a royalty payment for the value of the IP would be paid to appropriately compensate the IP owner; in the upstream O&G sector, bifurcating the revenue

stream from the sale of the resulting hydrocarbon between the amount resulting for the use of the IP (be it a tool, technique, process, or patent) and that associated with more routine contributions is difficult because of the convolution of IP and activities at the wellhead.

The transfer pricing regimes promulgated across the globe accommodate a range of approaches for dealing with these issues. Depending on the characterisation of the transaction, a taxpayer can elect to classify these intercompany transactions as a complex engineering service or a service bundled with IP. In practice, E&P and OFS companies have addressed these issues differently.

E&P companies' approach to IP transfer pricing

In general, E&P companies employ one of two basic transfer pricing mechanisms to allow for the development and use of IP.

Global IP ownership model

A number of E&P companies, including some of the supermajors, engage in expansive, multiparty cost sharing arrangements (CSAs) whereby all operating entities share the cost of IP development and are allowed the use of the resulting IP on a royalty-free basis. In many cases, such arrangements have been in place for several decades and effectively turn each participant into a co-owner of the intangibles being developed.

Two characteristics of a global ownership model make this approach appealing to E&P companies. First and foremost, it eliminates the need for a royalty, because every legal entity is the economic owner of its share of the IP. This allows these companies to avoid the contentious issue of how to bifurcate the hydrocarbon revenue at the well site and calculate royalties on the portion attributable to IP. A second advantage of the global ownership approach is that it allows companies to avoid a mark-up on intercompany charges for engineering, geological and geophysical services, as these services can be viewed as part of the intangible development costs covered by the CSA. This is no small accomplishment, given that some tax authorities have taken the position that such intercompany services should command a high mark-up, yet the joint venture partners and NOCs that have to pay a share of these costs are reluctant to pay the mark-ups.

There are some downsides to the global ownership model: it forces E&P companies to calculate complicated valuation analyses as legal entities enter or exit the CSA, and the structure itself may be more tax inefficient than having a principal company own all the IP to be used offshore.

Central IP ownership model

Other E&P companies eschew the administrative structure of a CSA and allow IP to be developed and owned in one or a few R&D locations where such development naturally occurs. They may charge their operating affiliates for the R&D performed on their behalf at cost or cost plus a small mark-up, but no effort is made to collect royalties on the use of any resulting IP and such arrangements are not codified in a formal CSA. Those models may not produce tax efficiencies and are most prone to being criticised by the tax authorities, because IP ownership and use is difficult to ascertain and open to dispute. From an administrative standpoint, however, such arrangements are quite elegant. Arguments supporting this approach rely on the fact that much of the IP in use by E&P companies is in the public domain and developed jointly with universities, upstream partners and oilfield services companies, and are not otherwise compensable.

Some E&P companies using this model have a “natural hedge” against tax authority adjustments in that they centralise IP ownership in two locations, each of which uses the other’s IP. A tax authority’s attempt to impose a transfer pricing adjustment on one of the entities by asserting royalties for the implicit IP licence could be forced to consider the corresponding inbound royalty payment for what amounts to very similar IP.

In addition to the above two IP transfer pricing models, a number of E&P industry participants have historically maintained that the nature of the industry does not allow for any type of meaningful transfer pricing management of IP, and have argued against intercompany charges for intangibles.



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Before joining Deloitte, Wells was the lead economist for the global energy and national resources sector of another big four firm, and an economic adviser to the Kuwait government. Wells was also a professor at Auburn University, where he taught PhD-level courses in time-series analysis, macroeconomics, and international finance. He has numerous publications and was a referee for the *American Economic Review*, *Economic Inquiry*, and other journals. Wells was awarded a National Science Foundation grant for his work on the effects of political events on financial markets.

OFS companies’ approach to IP transfer pricing

E&P companies outsource most of the heavy lifting around exploring, developing and producing O&G to OFS companies. OFS companies also undertake a significant portion of the IP development in the industry. IP in the oilfield services business lies in the industry’s ability to provide engineering services consistently across different reservoirs (deepwater, unconventional plays such as shale or coal bed methane and mature), geologies (sandstone, carbonates, shale, coal beds) and geographies (onshore, offshore, North & South America, Europe, Asia, West Africa, the Middle East) while satisfying stringent health, safety, and environmental regulations, decreasing non-productive time, reducing delivery and service costs, and meeting the demanding requirements of NOCs and IOCs. From a transfer pricing perspective, the OFS industry IP is viewed to be a combination of:

- Technologies that provide the science behind building the tools used in providing services;
- Local engineering knowledge, field know-how and processes that allow for the adaptation of the tools to pro-



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Firas has experience in multiple industries (energy, software, food & agribusiness, retail, services and information technology) and is a regular speaker on transfer pricing and business model optimisation issues at the International Bureau of Fiscal Documentation and Tax Executive Institute, among others.

Education

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 Bachelor of Engineering – Computer and Communication Engineering, American University of Beirut (with honours)

vide consistent services under differing conditions across differing geologies and well requirements; and

- Business development knowledge that creates marketing intangibles (trademarks, trade names, reputational integrity), develops customer relationships, provides customer satisfaction, and drives sales and customer contracts.

Technology intangibles

Technology in this industry is delivered to the client via the tools and systems that companies use in the provision of their services. Technology normally is a qualifying factor that allows a company to bid for services, as opposed to a clear-cut differentiating factor. Services contracts usually specify particular technologies needed for a given job. An OFS company that does not have the specified technologies in its repertoire would be disqualified from bidding on the contract.

The large companies operating in the oilfield industry own very similar technology portfolios. IOCs and NOCs, the

customers of the oilfield services industry, have a vested interest in maintaining the competitive balance within the industry. It is common for IOCs and NOCs to diversify suppliers, as well as related technology, to avoid sole-sourced technology. That is one of the motivations for the consortia between E&P companies and oilfield services companies and research universities discussed above.

Technology within this industry is normally centrally designed, developed and managed. Hence, most OFS companies employ a central IP ownership model. Even when mergers and acquisitions lead to technologies changing hands, the acquired technologies are typically also centrally owned and developed. This approach to IP development and maintenance has historically meant that most local affiliates of OFS companies pay a royalty to the technology IP owner(s).

The centralised and specific nature of the technology IP also allows OFS companies to share the risk and costs of IP developments through CSA arrangements.

Processes and local know-how

Processes and local know-how in this industry directly affect service quality and are the means by which a company's technology is provided to the customer. Processes and people have been so important in OFS after the Macondo incident that an OFS provider's process, safety, reliability, repeatability and people have come to be viewed as more important than technology. NOCs and IOCs require consistency in service delivery, which allows them to better control their costs and enhance their production plans.

As a matter of practice, processes in the OFS industry are developed based on the experiences gained, and lessons learned by engineers and field personnel operating in the various geologies and on different well sites across the globe. Such processes and standards are usually maintained in centrally controlled databases or knowledge sharing platforms.

Consequently, processes and know-how IP is developed across all jurisdictions and in some cases is jurisdiction-specific. As a matter of practice, it would be difficult to track and charge for contributions by specific affiliates to a company's combined depository of processes and know-how. However, the part of this IP that is thought to be attached to and accompanying the technology IP is normally charged through the same royalty mechanism as technology IP.

Marketing

Marketing IP in the oilfield services industry relates to trademarks, trade names, strategic customer relationships, and value-add business development activities.

Trademarks and trade names do matter, but are not a big value driver in the oilfield services industry. The discussion

about the importance of consistent service quality, tender qualification processes, service provider diversification by clients and local on-the-field personnel to the oilfield services business, makes it clear that trade names and trademarks do not provide a large competitive advantage.

The marketing value drivers in the OFS industry are usually the business development organisations driving sales and creating customer relationships.

The importance of business development organisations relates to the fact that sales in this industry are highly technical, so a sales person must have specific knowledge of the types of physics a tool or service uses, and the geology in which it is employed. This makes it difficult for someone outside this discipline to be an effective salesperson.

Similar to the processes and know-how IP, marketing intangibles are often locally developed and managed, with some component of central supervision due to organisational reporting lines and centralised management of major accounts. It would be difficult to track and charge for contributions of specific affiliates to the marketing IP, especially given that most of the benefit associated with this type of intangible is realised at the local country – or even the local field – level.

Conclusion

Global politics have often played an important role in natural resource policies. Recent technological advancements in the O&G sector will make sure that this continues to be the case. As IP becomes increasingly important to the success of O&G exploration, development and production activities, market participants will find it necessary to develop cogent IP management policies to mitigate their transfer pricing risks.

The changing frontiers of transfer pricing for life sciences companies

Life sciences companies, long at the vanguard of international tax planning, are facing particular challenges because of the important role the exploitation of intellectual property (IP) plays in the industry. [Aydin Hayri](#), [Keith Reams](#) and [Susan Eisenhauer](#) discuss the complex web of tax and transfer pricing regulations that multinational companies have to navigate.

Like many industries, the life sciences industry is going through a period of rapid change, led by a burst of technological innovation and a changing business environment. Globalisation accelerates these trends as companies look to capitalise on their discoveries on an unprecedented scale and search for talent around the world.

This article will touch upon the emerging issues regarding economic ownership of IP, which are rapidly gaining importance in the context of international tax compliance and planning, particularly in light of the Organisation for Economic Cooperation and Development's (OECD) current base erosion and profit shifting (BEPS) initiative, as well as high-profile challenges by tax examiners in various countries.

Two broad themes emerge in this area: tax administrations seem to be increasingly convinced that (1) multinationals have been and are adopting abusive tax structures designed to circumvent the various tax rules they are subject to; and (2) such arguably abusive tax structures lack economic reality and/or are short on substance. The OECD's Working Party 6, made up of representatives from the various member states, has been working diligently for many years now to find consensus around some of the thornier issues. While far from being unanimous in their thinking, the members of the working group published some of their ideas regarding the transfer pricing aspects of intangibles in draft recently. If adopted in the final guidelines and ultimately incorporated into legislation, these concepts could have far-reaching effects on multinationals in the life sciences industry.

Intellectual property

IP in the life sciences context tends to consist generally of legally protected IP, such as patents, trademarks, and trade names and copyrights, as well as unpatented technology and other unprotected intangibles. Product IP in the industry, in particular, will include product and/or use patents, technical data from clinical trials, regulatory approvals, manufacturing know-how (including potential patents for manufacturing), and trademarks. Historically, life sciences companies have managed their IP on a product or portfolio franchise basis, which means they usually treat all constituent parts of the IP on a bundle of rights basis, divided according to custom on a geographic or field-of-use basis.

Bundling was particularly meaningful for small-molecule pharmaceuticals, because the economic useful life of a particular small molecule compound typically would come to an abrupt end with the expiration of the fundamental protective patent(s) (or in the case of generic off-patent



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Aydin assists clients with transfer pricing planning involving global and domestic intellectual property development and licensing strategies; and planning and implementation of supply chain and business model restructurings. He has provided thought leadership by developing and applying China and the Far East sourcing strategies, such as adjustments for manufacturing and distribution risk differences, and adjustments for recession, market share, and book-to-market value differences. In addition to the pharmaceutical industry, his experience covers the medical device, defense/aerospace, manufacturing, and retail sectors.

Before joining Deloitte, Aydin was an assistant professor of economics at Charles University, Prague; the University of Warwick, England; and a research fellow at Princeton University. His primary specialization was industrial organization, with emphasis on the economics of risk, uncertainty, and valuation. He taught courses on this subject, published articles in international journals, and obtained grants from the European Commission, the Economic and Social Research Council, and the World Bank. Aydin still teaches occasional courses for MBA students.

Education

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Selected transfer pricing publications

- "The Branded Prescription Drug Annual Fee and Transfer Pricing," 21 *Transfer Pricing Report* 339, July 2012.
- "Is it Time to Revisit Transfer Pricing? Economic Downturn and Transfer Pricing" with Kaoru Dahm, *Tax Notes International*, March 2010.
- "Neither a Distributor Nor a Commissionaire: Benchmark Returns for Low-Risk Distributors," with Michael Aarstol, *Transfer Pricing Report*, July 2003.
- "Firm Profitability in Recessions," with Dick Clark, *Transfer Pricing Report*, BNA, May 1, 2002 and March 6, 2002.

products, at the end of the typical six-month period of exclusivity). In that sense, there was little need to consider separately the constituent parts of the bundle of rights in the product IP, because all components of IP were seen to have the same useful life.

For more complex large-molecule biopharmaceutical products, however, the situation is somewhat different. First, biopharma products typically have very complex patent protection patterns. For instance, some biopharma patents are used to block competitors from working on certain types of indications, enzymes, genes, proteins, or even biological pathways or mechanisms of action, but may be non-specific as to a particular compound. Those patents may be seen as process or platform patents and have broad reach in terms of protecting a whole class of potential compounds and therapeutic agents for what may be a very difficult to measure and/or uncertain period of time.

Second, and perhaps more important, biopharma products are often the result of bioengineering processes using live organisms, which are more difficult to reproduce in the laboratory compared with the more straightforward chemical synthesis processes used to make small-molecule compounds. As such, the useful life of typical biopharma products may depend on factors beyond the patent protection period, such as manufacturing know-how and trade secrets.

Finally, big pharmaceutical companies have more recently shown the ability to lengthen the economic lives of some products beyond patent expiration, despite the growth of generic competition through significant investments in marketing and brand-building around the branded products they produce and distribute.

Increasingly, the challenge today for international tax planning and transfer pricing for most companies in the industry is to be able to identify and evaluate the different component parts of the product IP separately. Historically, there has been a strong reliance on the wide variety of available information regarding uncontrolled third-party licensing deals in the industry as comparable uncontrolled transaction (CUT) benchmarks for purposes of setting and documenting inter-company arrangements for income tax and transfer pricing purposes. When a more differentiated set of IP rights are involved, the CUT approach is often difficult to apply, because CUTs involving separate components of IP have not generally been readily available. Other methods, therefore, have tended to take precedence in those instances.

Separating manufacturing know-how

In uncontrolled deals, the licensor typically licences out the product IP before approval. While all technical data and manufacturing know-how are typically included under the licence grant, full-scale manufacturing typically would not start for a possibly extended period of time. Uncontrolled license deals for the full-scale exploitation of compounds/treatment

regimes in later phases of development are rather few and typically take the form of a distribution agreement (whereby the licensor also supplies the product). This is quite often the case when the manufacturing of the product is complex and, therefore, the contribution of the manufacturing know-how is likely to be more important. The value of this contribution can often be measured by attempting to quantify the difference between the typical wholesale supply price for the finished product and the typical licence rate (that is, the difference between what the IP owner might earn as the supplier compared to being just a pure licensor). This difference would generally include the routine manufacturing return, as well as any product liability risk associated with the supply (that is, the IP owner would normally assume the manufacturing defect risk as the supplier, but often not as the licensor). While there are large variations in the industry, an IP owner might typically earn between 40% and 60% of the resale price, whereas the licence rate for an approved (or a late-stage) product rarely exceeds 30% of the net sales price.

Another approach for assessing the contribution of manufacturing know-how might be to analyse transactions involving solely manufacturing know-how, or analogous IP (such as the delivery system licensing rates). Although such agreements may involve a significant degree of complexity, the prevailing licencing royalty rates observed in the industry for pure manufacturing know-how – even for an important well-known and accepted product – are typically about 4% of net sales.

When there are few industry benchmarks for assessing the contribution of the manufacturing know-how in a particular instance, an approach to consider may be the “replacement cost” method, depending on the facts and circumstances and the general availability of specific development cost data.

Indicia of beneficial ownership of IP

IP is so central to value creation in the life sciences industry that arguably the most important international tax and transfer pricing questions revolve around the identification of the developer and owner of the IP. To this end, it is not sufficient to simply look to the registration of the patents and trademarks. For income tax purposes, it is necessary to establish the “beneficial” or “economic” owner; that is, the entity, group, or organisation responsible for undertaking the funding and risk of development of the IP. Until the recent OECD discussion draft on intangibles, the established practice in this area looked for four indicia of beneficial ownership:

- 1) **Cash** – Which entity or group assumed upfront responsibility for the IP development or acquisition costs? Did the presumptive owner incur specific expenses to develop or acquire the IP?
- 2) **Capital** – Did the presumptive owner have appropriate capitalisation upfront to withstand the potential failure of the development effort? Would it make economic sense for



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Keith has testified as a qualified expert in numerous valuation and transfer pricing disputes, including the cases of *Nestle Holdings Inc. v. Commissioner*, *DHL Corp. v. Commissioner*, and *United Parcel Service of America, Inc. v. Commissioner*. In addition, he is one of only three economists in the US approved by the New York State Department of Taxation and Finance to provide transfer pricing expertise and testimony in cases involving cross-border transactions within commonly controlled affiliated groups. He has also helped many clients to successfully resolve valuation and transfer pricing disputes before they reach trial.

Keith completed course requirements for a Ph.D. in international finance from New York University. He holds a Master of Arts in economics from California State University Sacramento and a Bachelor of Science in chemical engineering from Stanford University.

- a company with the presumptive owner’s resources to have attempted such an IP development project?
- 3) **Conduct** – Did the presumptive owner secure the proper legal rights to the IP and memorialise the intended course of conduct? Follow-through with respect to the implementation of that course of conduct is also important. While the ultimate legal registrations may not be in the name of



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Since joining Deloitte in 1997, Susan has worked on a wide variety of inbound and outbound transfer pricing projects, including numerous advance pricing agreements, cost sharing arrangements and intangible migrations. Susan also spends significant time on tax controversy matters, including mutual agreement process requests and tax provision work relating to transfer pricing. She has successfully defended her own transfer pricing studies upon audit by the IRS, as well as helping companies without existing documentation develop audit strategies and responses to IRS information document requests. Susan has handled transfer pricing matters for nearly 100 different clients across a broad spectrum of industries. Susan's current clients operate mainly in the consumer products, office products, chemical, and pharmaceutical/biotech industries.

Before joining Deloitte, Susan worked for several large US-based multinationals. Within the corporate environment, Susan began her career in international tax planning and was involved in most aspects of corporate international tax and foreign income tax matters including transfer pricing, as well as being heavily involved in monitoring and managing IRS audits.

Susan speaks on various transfer pricing topics at conferences and meetings sponsored by The Tax Executives' Institute, Insight Information Co., and CITE, Inc., as well as facilitating numerous in-house and client trainings at Deloitte. She has co-authored several articles.

Education

- Muhlenberg College, BA
- Fordham University School of Law, JD
- New York University School of Law, LLM in Taxation

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the beneficial owner, there should be some documentation of the initial intent regarding which party would be the beneficial owner. Did the presumptive owner make arrangements upfront and conduct development and commercialisation efforts in a consistent manner?

- 4) **Control (Executive)** – Did the presumptive owner of the IP exercise managerial control over the business activities that directly influence the amount of income or loss realised from the IP or its development? Did the presumptive owner set the budget, and make the strategic decisions for development, protection and value preservation? These questions are consistent with the guidance provided in Paragraph 79 of the OECD's Revised Discussion Draft on the Transfer Pricing of Intangibles.

While these four indicia have been in the guidance for a long time and have been generally accepted by many taxpayers, the OECD working party representatives, as part of the more recent BEPS initiative, appear to be trying to add a fifth indicium, which hitherto has not been deemed a strict requirement, but "good to have":

- 5) **Control (Operational)** – Did the presumptive owner exercise operational control over the IP development and/or commercialisation? Did the presumptive owner design the development programme and make most of the critical operational decisions?

The income tax regulations promulgated by the US Treasury (Treas. Reg. §1.482-1(d)(3)(iii)(B)(3)) suggest either managerial or operational control as an important factor: "[E]xercise managerial *or* operational control over the business activities that directly influence the amount of income or loss realized." The OECD draft chapter VI of the transfer pricing guidelines goes beyond executive or managerial control, and appears to suggest that to secure all beneficial rights to IP, the presumptive IP owner must have operational or functional control over the IP development, perhaps directly through its employees.

An appropriate analysis of executive control should focus on the corporate governance of the presumptive IP owner, and should be analysed under a hypothetical scenario of independence. Such a hypothetical analysis under presumed independence should not focus on the actual decision-making process within the multinational enterprise, but whether the presumptive IP owner has the capacity and ability to make executive decisions related to the IP development. In the life sciences sector, that capacity is generally focused on the financial and business wherewithal to direct the development efforts, with support from at least some scientific knowledge. In the current environment, however, it is not implausible that tax authorities may begin questioning the frequency and extent of reviews by the presumptive IP owner of the development programme, and impose changes if actions taken by others are determined to be inconsistent with the objectives and parameters of the development programme.

Contract R&D

The determination of beneficial ownership for tax purposes may be affected by the existence of contract research and development (R&D) arrangements, which are common in the life sciences industry, both in the uncontrolled and related-party settings. For many decades, taxpayers viewed a cost plus 10% margin as a *de facto* safe harbour for contract R&D. For many taxpayers that have had such a policy in place for a long time and have had such arrangements accepted in multiple US or foreign audits, this may well be a low-risk issue. In contrast, for taxpayers that are just entering into such arrangements, or restructuring them, we would like to highlight a few considerations around each of the 5-Cs indicia of beneficial ownership.

- 1) **Cash** – Cash needs and expenditures can vary widely with respect to R&D, and careful consideration should be given to each item of cost. For instance, some types of R&D require highly specialised facilities, often necessitating substantial upfront cash outlays. In those cases, and for other expenditures that have an extended period of utilisation, it may be necessary to undertake a broad-based and thoughtful analysis of how such items should be accounted for in the cost base. For instance, the amortisation of those expenditures or an arm's-length lease or rental rate can be used to match expenditures with benefits to the contract R&D arrangement or, perhaps, a decision may be made to treat those expenses separately from other contract R&D services altogether.
- 2) **Capital** – The capital structure of the presumptive IP owner in a multinational enterprise may sometimes be an afterthought, but care should be exercised to confirm that the presumptive IP owner has the resources to see through whatever research programme it is funding.
- 3) **Conduct** – Some taxpayers take a blanket approach and claim that the benefits of any and all R&D conducted by the contract R&D service provider belong to the service recipient. This result is often assumed to be automatic because of the contractual terms governing the arrangement. The US transfer pricing regulations state, in more than one place, that contractual terms may be overridden if inconsistent with economic substance. Further, the contract R&D activities, in and of themselves, may create intangible assets in the form of non-specific know-how or other capabilities the contractor may develop over time in the normal course of performing its business. Such business process IP may not be related per se to the specific contracted R&D activity, but rather are a separate outcome from the IP being developed through the contract R&D arrangement. Over time, it is that business process R&D, often referred to as going concern value that the contract R&D service provider relies on for efficient and productive functionality. In those cases, it may become necessary and even beneficial to identify this non-specific benefit

separately for purposes of future income tax and transfer pricing planning.

- 4) **Control (Executive)** – Control of the contract R&D relationship may often require more than just tracking contractual provisions set out in the original contract R&D arrangement. An accepted practice in this area has evolved to include periodic (say, quarterly) budget and programme reviews, including the undertaking of critical decisions and their resolutions. As part of such periodic reviews, the officers and/or the board of the presumptive IP owner that engages a related-party contract R&D service provider would be well advised to exercise and document a substantial level of vigilance regarding the activities of the contract R&D service provider.
- 5) **Control (Operational)** – If the presumptive IP owner does not have the facilities or personnel to be involved in the research programme on a day-to-day basis, it may be advisable to include in the upfront contracting process detailed provisions relating to the operational aspects of the contracted R&D program. Such provisions would intentionally limit the discretion of the contract R&D service provider to prevent any perceived dilution of the presumptive IP owner's rights in the IP created under the contract R&D arrangement.

Collaborations and R&D funding

Because of the high costs and substantial risks involved in developing and commercialising products in the life sciences industry, in recent years there has been an upsurge of alliance and collaboration arrangements among different players in the industry. For instance, big pharma, with its armies of detailers and distribution capabilities, has entered into joint development arrangements with small entrepreneurial start-ups with innovative technologies and/or ideas to leverage each other's capabilities. Such arrangements, though increasingly common, are quite complex and distinctive, reflecting a vast array of possibilities.

Collaborations may create complexities for income tax and transfer pricing planning and compliance and, therefore, must be carefully analysed. It may be appealing to look to third-party arrangements as benchmarks when crafting intercompany arrangements; however, attention must be paid to the specifics and details of each arrangement to confirm they reflect the true economics of the arrangement appropriately. In many instances, it may not be possible to replicate the essential relationships on an intercompany basis to a sufficient degree as to make a third-party arrangement a useful comparable for planning and/or compliance purposes. The forces that bring independent parties together in collaboration often have more to do with the specialised resources, knowledge, and capabilities of each of the parties, and less to do with the shifting of risk and functionality between them. Further, even if such arrangements might be replicated successfully, changes

in those third-party arrangements frequently arise due to factors unrelated to the original economic considerations, such as subsequent acquisition/disposition activity or competing technological developments. Those changes make it increasingly challenging for multinational corporations to convince tax authorities that third-party arrangements should continue to be respected as comparable.

Conclusion

While many of the issues highlighted here are not specific to the life sciences industry, the stakes tend to be much higher for pharma and biopharma companies because of the often large

and highly risky investments and long lead times involved in product development and commercialisation. Planning, under sometimes extreme uncertainty, can be challenging, and because hindsight is always 20/20, contention over who knew what when can often plague taxpayers that may be embroiled in difficult audits and even litigation with tax authorities. As with everything in international tax and transfer pricing, careful and broad-based documentation of all relevant facts and circumstances contemporaneous with – or at least as close as possible to the actual timing of transactions – can be critical to not only structuring arm's-length arrangements but, more importantly, to sustaining such arrangements for the long term.

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Media & Entertainment: The price of content

**Kristine Riisberg and
Anna Soubotina**
discuss the appropriate
pricing of intangible
asset transactions in the
media and entertain-
ment industry.

As a policy matter, many aspects of traditional tax planning involving intangible property (IP) have come under increasing scrutiny by global tax authorities and the broader international community. In 2014, issues relating to the transfer pricing of intangibles continued to dominate the tax landscape, with much of the discussion driven by the OECD’s report on base erosion and profit shifting (BEPS), followed by an action plan and revised Discussion Draft on Transfer Pricing Aspects of Intangibles in 2013. The action plan identified 15 specific areas for further work, one of which calls for “ensuring that profits from intangibles are not divorced from value creation and special measures for hard-to-value intangibles”. In the United States, Senator Max Baucus’ Discussion Draft on Provision to Reform International Taxation, released November 2013, and the tax reform draft plan released by Congressman Dave Camp in February 2014 have sparked continued debate on how to keep companies from shifting profits from intangibles to low-tax jurisdictions.

For the media and entertainment industry, the key profit driver associated with intangibles involves proprietary content. Content is typically centrally owned and globally licenced intercompany for exploitation in each local market. Box office revenue is the most widely published indicator of a film’s success, and as much as 50% of box office revenue is generated outside the United States. Most content in the media and entertainment industry is produced and owned in the United States: eight of the top 10 global media companies are US-based. With global audiences playing an increasingly important role, intercompany licencing of content to affiliates for local exploitation accounts for some of the biggest and most uncertain transactions for the industry.

A typical structure in the media industry is for a US affiliate to own the global IP and either licence the foreign rights to this IP to its distribution affiliates abroad, or engage the marketing and sales services of those affiliates. As the industry adapts to new digital distribution channels and increasingly selective audiences with a preference for locally tailored content, local media company affiliates are taking on increasing decision-making power and risk for their local markets. Given this backdrop, licencing is becoming more prevalent. The affiliates licence the content (say a movie, or a show), which is then shown in local movie theatres, distributed for video consumption either digitally or via DVD/Blu-ray, and shown on free and pay TV stations. But media companies also enter into similar transactions with unrelated distributors, creating a large pool of potentially comparable market transactions that

Figure 1

Variable*	Range of Values				
	Minimum	Lower Quartile	Median	Upper Quartile	Maximum
Domestic Box Office	\$5	\$20,301	\$44,403	\$93,475	\$760,508
International Box Office	\$0	\$11,082	\$42,030	\$115,125	\$2,023,411
DVD and Blu-Ray® sales	\$30	\$8,086	\$16,177	\$33,973	\$348,653
Domestic TV rights sales	\$48	\$2,958	\$6,155	\$12,821	\$110,916
Rental revenue	\$34	\$11,505	\$19,863	\$30,347	\$70,975
Production budget	\$450	\$19,000	\$35,000	\$75,000	\$425,000
Printing and advertising costs	\$0	\$24,939	\$35,086	\$44,717	\$64,795
Age of content (years)	1 year	2 years	3 years	4 years	6 years
Genre	Action, Adventure, Comedy, Drama, Horror, Kids, Superhero				
MPAA rating	G, PG, PG-13, R				

*In USD '000 unless noted otherwise

should be carefully evaluated for comparability with inter-company licensing arrangements.

Under US Treas. Reg. §1.482-4(c), the comparable uncontrolled transactions (CUT) method evaluates the arm’s-length nature of an intercompany charge by reference to comparable uncontrolled transactions. If an uncontrolled transaction involves the transfer of the same intangible under the same (or substantially the same) circumstances as the controlled transaction, this method will ordinarily provide the most reliable measure of an arm’s-length charge. Circumstances are considered substantially the same if only minor, quantifiable differences exist for which appropriate adjustments can be made. Factors that are particularly relevant in determining comparability under the CUT method (besides the property itself) include contractual terms and economic conditions. For the intangible involved in the uncontrolled transaction to be considered comparable to the controlled intangible, both must have a similar profit potential, and be used in connection with similar products or processes within the same general industry or market. Other factors to be considered are the terms of the transfer, the stage of development, rights to receive updates, revisions or modifications, uniqueness of the property, duration of the licence, economic and product liability risks, existence of collateral transactions, and functions performed by the transferor and transferee.

In the media industry, each intercompany and third-party licensing transaction is often individually negotiated considering a number of industry-specific factors. These may include the genre, age of the content, Motion Picture Association of

America (MPAA) rating, production budget, viewer ratings, the star of the show, type of content (movie or series), whether the licence includes rights to show on free or pay TV, as well as whether the content has local or global appeal.

Furthermore, an evaluation of the profit potential of a particular movie or show should consider all potential sources of revenue, including theatrical, home video, and advertising over the term of the licence or the life of the content.

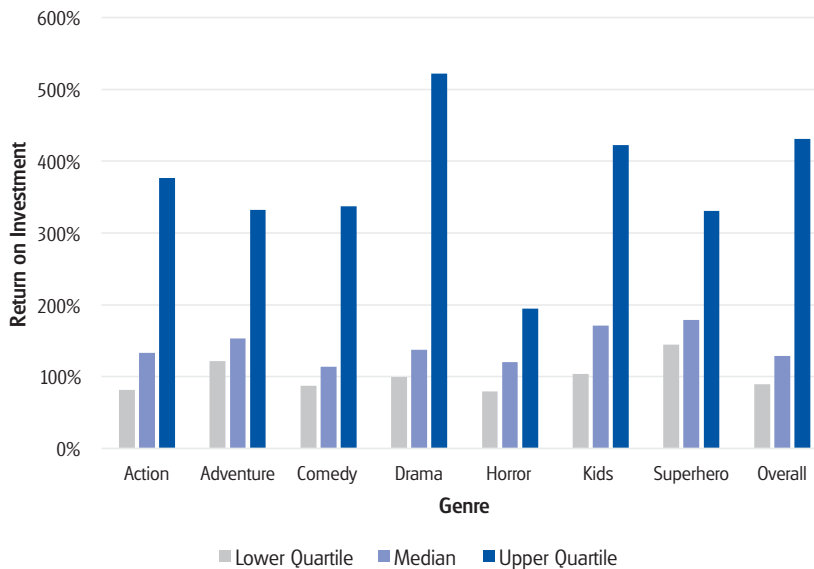
The application of the CUT method for media companies is based mostly on internal comparable transactions that are not publicly disclosed. Therefore, little information about profitability and content value can be gleaned from public sources, other than production budget and box office revenue. To provide additional insight into what drives content revenue and profitability, Deloitte Tax used a database developed by Nash Information Services, LLC, the company behind www.the-numbers.comTM. This article presents our findings based on an analysis of the data, which has so far been rarely available in complete and consistent form.

The data

The data used for this study contained information on 646 movies and included 10 key variables for each (see Figure 1).

Deloitte Tax collaborated with www.the-numbers.comTM to get the most complete publically available data set, starting from over 20,000 titles released between 1915 and 2014. Any movies lacking information for the variables above were eliminated from the analysis. We then calculated three key indicators from a studio’s perspective: total revenue to studio, total cost

Figure 2: Interquartile range of ROI by genre



to studio, and return on investment (ROI). Industry sources such as Box Office Mojo report that, on average, studios retain approximately 55% of box office revenue. In addition, movie distributors may also retain 15-30% of gross receipts. However, our experience indicates that most major studios distribute their movies primarily through affiliated distributors. We therefore only considered payments to theatres in calculating the studios' revenue. Each indicator was calculated as follows:

$$\begin{aligned} \text{Total Revenue to Studio} &= 55\% \times \\ & \quad (\text{Domestic Box Office} + \text{International Box Office}) + \\ & \quad \text{DVD and Blu-Ray}^{\text{®}} \text{ sales} + \\ & \quad \text{Domestic TV rights sales} + \\ & \quad \text{Rental revenue} \end{aligned}$$

$$\begin{aligned} \text{Total Cost to Studio} &= \text{Production budget} + \\ & \quad \text{Printing and advertising costs} \end{aligned}$$

$$\begin{aligned} \text{Return on Investment} &= \\ & \quad (\text{Total Revenue to Studio} - \text{Total Cost to Studio}) \div \\ & \quad \text{Total Cost to Studio} \end{aligned}$$

It is important to note that, given the general lack of reliable data for the media industry, several key pieces of information were not part of the dataset and therefore are not considered in this analysis. In terms of revenue, media companies often employ multiple additional channels to monetise content. These may include international TV rights sales, video on demand services, merchandising, as well as theme parks. The cost data is also incomplete, not accounting for many of the costs of creating and selling movies. Furthermore, after elim-

inating titles with incomplete information, the data may not be fully representative of all major types of movies. For example, our sample did not contain any documentaries or titles produced before 2008. Because of the lack of information about the timing of revenue, we did not make adjustments for the time value of money or inflation.

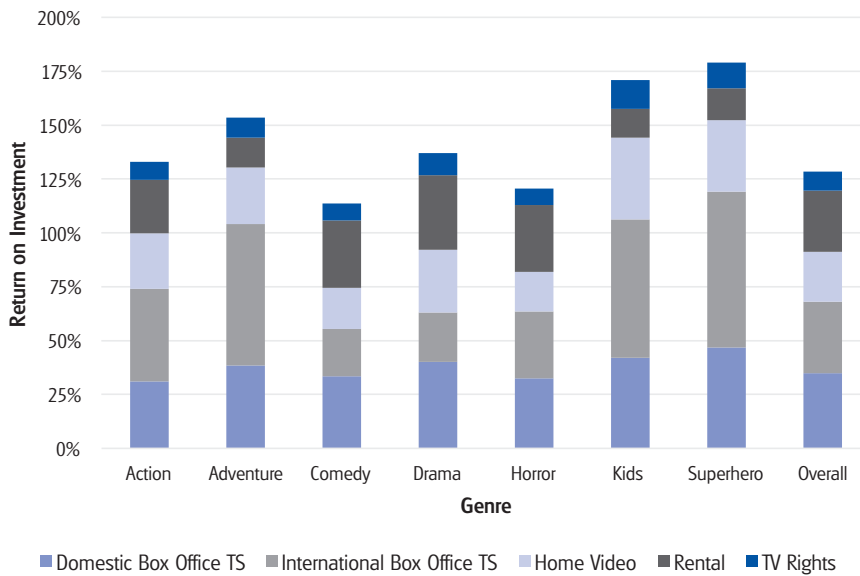
Despite these minor shortcomings, the dataset can still provide valuable insight into how genre, MPAA rating, revenue composition, age, and production budget may impact revenue and ROI.

Volatility

The media industry has been regarded as volatile and unpredictable. Studios, investors, and transfer pricing professionals have a profound interest in the ability to predict film profitability. Yet, as De Vany and Walls note in their article *Does Hollywood Make Too Many R-Rated Movies: Risk, Stochastic Dominance, and the Illusion of Expectation* (*Journal of Business*, 2002, vol.75, no.3), a film is an experiential good: until it is released, a motion picture is just an unknown, uncertain prospect. Accordingly, attempting to predict audiences' reactions to this class of products has proven difficult. Our dataset is no exception, and shows noticeable variability of ROIs even with the benefit of hindsight.

As can be seen from Figure 2 above, the interquartile range of ROIs for the entire data set varies widely from 89% at the lower quartile to 430% at the upper quartile, with a median of 128%. In addition, 187 titles out of our sample of 646, or almost 30%, had a negative ROI. *The Fifth Estate* had

Figure 3: Median ROI to studios by genre



the lowest ROI at -88%, and *Paranormal Activity* had the highest, at 922%.

Genre

In terms of genre, the data reveal that the somewhat related categories of Kids and Superhero films generate the highest return on investment for studios at the median. One of the most interesting genres is Kids’ films, which fall under two categories for the most part, live-action and animated, and are almost always rated G or PG. Digitally animated films produce high revenues, allowing these types of films to gain a reputation as the most profitable genres in the business. By contrast, live-action children’s films have staggered behind in terms of overall performance. The breakaway success of such modern animated features as *Frozen* (2013) further reveals the drastic difference between the two. This PG-rated, digitally animated film had a net production cost amounting to \$150,000,000, and skyrocketing ROI to studios of 428% less than a year after release. The median ROI by genre is shown in Figure 3.

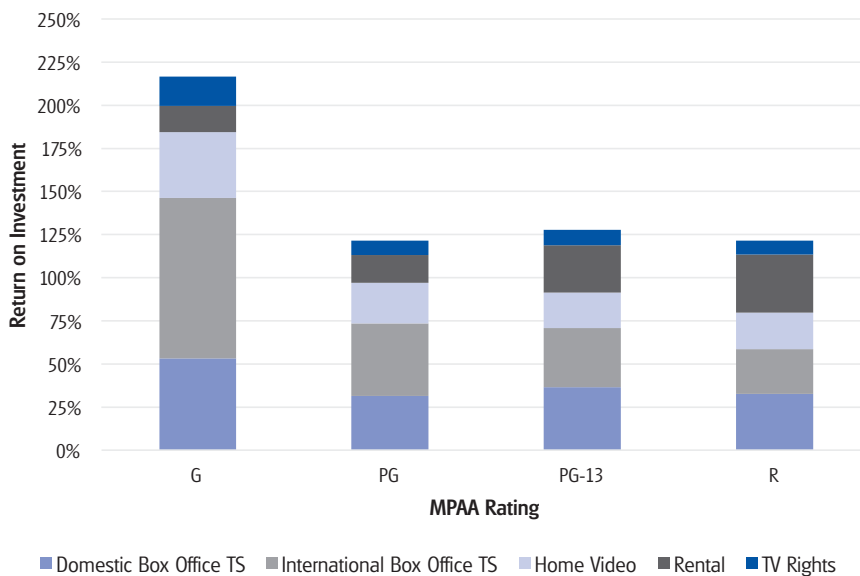
Important for transfer pricing purposes, the data indicate that median returns vary significantly from genre to genre. Comedies show the lowest median ROI, which is still well over 100%, and Superhero films lead the other genres. Another interesting finding is that while dramas do not produce the highest ROI most commonly, this genre has the highest possibility of very high returns, with an upper quartile of over 500% (see Figure 2).

MPAA rating

Industry sources report that a large portion of films released are R-rated. In fact, according to Vany and Wall’s study, between 1985 and 1996, R-rated movies accounted for almost half of all movies released. Comparatively, only 3% were G-rated, 20% were PG-rated, and 25% PG13-rated. The Dove Foundation’s *Film Profitability Study 2012* (<http://www.dove.org/reports/roi/>) covering the period from 2005 through 2009 depicts similar figures, but there appears to be a trend away from R-rated films: their data indicate 38% of movies were R-rated, 41% PG13, 18% PG, and yet again 3% G-rated, marking the first time that the issuance of R-rated movies was overtaken by PG13-rated ones. The Dove Foundation further reports that PG13-rated films grew in production by 32% since their last study in 2005. One of the main reasons for this upward trend is that PG13-rated films have a larger potential audience and therefore profit potential, pulling in both adults and children (see Figure 4).

The data suggest that G-rated films fare better overall, due to higher international appeal as reflected by international box office and home video revenue. While the sample of G-rated films in our data set was limited to 12 titles, these findings are consistent with the Dove Foundation’s results for 2005 to 2009. According to this report, average profitability of R-rated films was only \$12.7 million per film. G-rated films proved to be the most profitable, reaping \$108.5 million in average profits. PG- and PG13-rated films fared better than R-rated films as well, with average profits of \$65.5 million and \$59.7 million, respectively. With the two studies showing that

Figure 4: Median ROI to studios by MPAA rating



profitability can vary several-fold depending on rating, MPAA rating is another key comparability criterion for a CUT analysis in transfer pricing.

Life cycle

Unlike most goods bought and sold within a multinational group, which generate an immediate return, content can generate revenue for many years after its original release. The American television sitcom “I Love Lucy,” originally launched in 1951, can still be seen on TV today and purchased on DVD and Blu-ray. Furthermore, the relative importance of different revenue streams changes over a film’s life cycle, with box office revenues dominating in the first year, and other revenue sources becoming more important as time goes on. In an intercompany context, where one affiliate bears the cost and risk of production, another may be responsible for theatrical content distribution, and a third for home video distribution, these shifts in revenue over time have important implications. Our data show a marked decline in the proportion of box office revenue after year 3 and this is expected to continue throughout the life of the content (see Figure 5).

Production budget

Revenues do appear to be correlated with the production budget based on the data. As shown below, on average studios collect approximately \$3.5 for every \$1.0 spent on production, with the production budget explaining about 55% of the variation in revenue.

However, here again the high variability of the data should be noted, with a high production budget not constituting a guarantee of financial success. For example, the genre with the biggest box office return on investment is documentaries. According to Catherine Rampell of the *New York Times*’ “*Economix*,” documentaries typically have domestic box office returns averaging 12 times the original production budget. Globally, box office returns are nearly 27 times the original budget. This high rate of return should not be surprising, considering that documentaries are significantly cheaper to make, averaging \$2.6 million in production budget as opposed to the \$98 million the average action film requires.

Other factors

While the data presented here provides an overview of the key industry-specific comparability criteria for licencing content in the media industry, there are numerous other factors that should be considered in practice for a broad-based analysis. First of all, our data included only movies, but television content constitutes a significant portion of intercompany transactions and is increasingly important for the industry. Additional factors to consider include popularity/viewer ratings; the actors, producers, and other key stakeholders involved; and a more detailed examination of the age of the content. US studio release windows for new content are measured in weeks rather than years, and our data did not allow for this level of granularity. However, anecdotal evidence suggests that licence rates for 1st window content can be as much as double those for 2nd window content.

Figure 5: Revenue breakdown over five-year life cycle

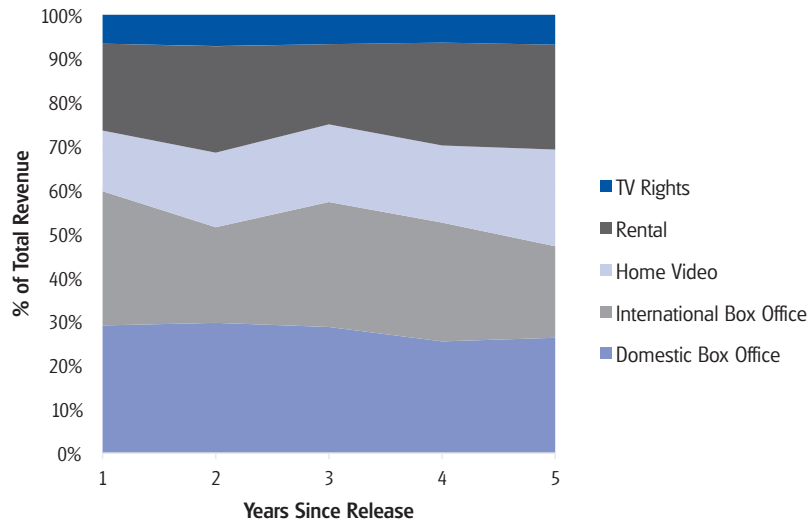
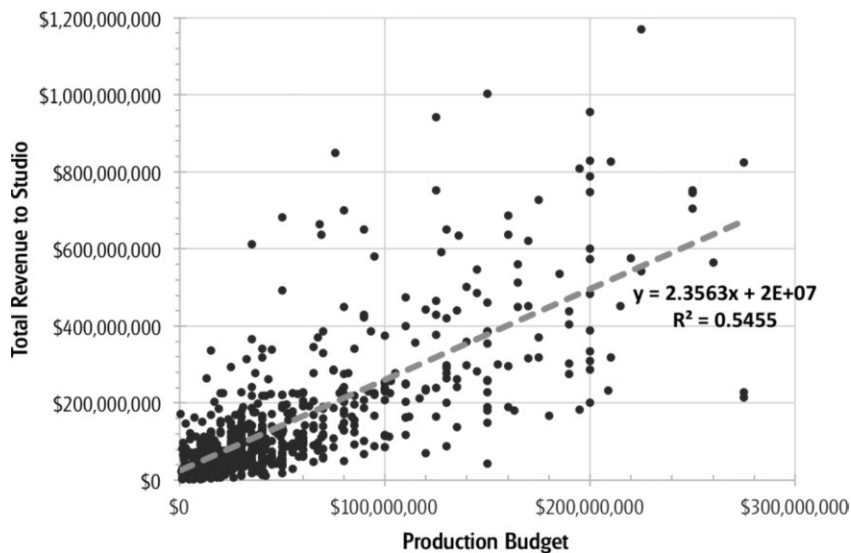


Figure 6: Total revenue to studios as a function of production budget



Avatar was removed from the data set as an outlier for purposes of this figure. Avatar generated over \$2 billion of revenue and had a production budget of \$425 million.

Conclusion

The appropriate pricing of intangible asset transactions within a multinational corporation is the top issue on the minds of taxpayers, tax authorities and advisers. For the media industry, this means being able to support the prices set for content licenced among affiliates. However, in an industry in which commentators have suggested that option pricing models would be most appropriate to analyse returns due to

the level of uncertainty, this poses a distinctive set of challenges. The results presented in this paper only scratch the surface of the most important factors affecting the value and profit potential of motion picture content and demonstrate the importance of deep industry specialisation in the global transfer pricing arena.

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With her international background and experience working in Deloitte transfer pricing teams in Copenhagen and London, Kristine has built up an extensive knowledge of global transfer pricing matters. Kristine is the global and US transfer pricing all industries programme leader, and the Americas transfer pricing leader of the technology, media & telecommunications industry programme. She has assumed the global lead tax partner role for the world’s largest container shipping conglomerate, the global lead transfer pricing role for one of the world’s largest media conglomerates, and the global lead transfer pricing role for the largest European-headquartered consumer and industrial goods conglomerate.

Kristine has given numerous speeches and presentations for various groups, including the American Conference Institute, the Tax Executives Institute, BNA, Atlas, Thompson Reuters, CITE, Deloitte Dbriefs and conferences on transfer pricing issues. Most recently, she spoke on intangible property migration at Deloitte Tax’s April 2014 Global US Investment Services and Transfer Pricing Group conference in Stockholm.

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Anna’s experience includes managing projects in the following industries: energy and power generation, chemical, industrial equipment and automation, software, financial services, healthcare, and media and entertainment. Anna has a proven track record consulting on a multitude of transfer pricing issues and the preparation of transfer pricing risk assessments under ASC 740, documentation, planning and audit defense studies, including cost allocation and services analyses, and tangible and intangible property.

Anna manages and coordinates the preparation of global transfer pricing documentation for Deloitte Tax’s largest clients, covering as many as 30 jurisdictions. Throughout this process, she ensures compliance with the US transfer pricing regulations, as well as consistency with the OECD transfer pricing guidelines. Anna works closely with Deloitte Tax’s global network of specialists to bring clients the benefit of deep local-country transfer pricing expertise.

Publications and Public Speaking

Anna’s publications include the “Intangible Property Guide” for *International Tax Review*, January 23, 2014, and the “Technology, Media and Telecoms Guide” for *International Tax Review*, No. 82, September 10, 2013.

Anna has also designed and presented Deloitte Tax training on the following topics:

- Transfer pricing services regulations
- Transfer pricing and FIN 48
- Mutual Funds, A Roadmap of Transfer Pricing
- Introduction to cost sharing
- Intangible assets.
- Comparable uncontrolled transactions and databases

Digital globalisation and TP challenges for consumer products companies

Shannon Blankenship,
Frank Polance,
Keith Reams and
James Ryan explore the evolution of the consumer products industry and the transfer pricing challenges it creates.

Shopping is not what it used to be. The internet and mobile devices have revolutionised how consumer products manufacturers and retailers operate. Yet many of these companies continue to rely on increasingly outdated transfer pricing systems that often ignore this business change. Ignoring the effects of digital globalisation can result in tax audits in different jurisdictions, resulting in inconsistencies in tax treatment of the same transactions, with sometimes significant unanticipated consequences, including tax assessments, penalties, and even double taxation. However, with foresight and careful planning, companies can effectively deal with transfer pricing around increased digitisation. This article describes some of the international tax and transfer pricing implications of the dramatic changes taking place in the consumer products industry, including the growth of e-commerce in retail, the digitisation of the products and services supply chains, and an increase in the reliance on digital brand management.

E-commerce retail

Web-based and digital technology has vastly changed the way consumers shop and buy products, so much so that most consumer product companies view internet sales as a significant part of their retail distribution sales. Companies that were historically slow to adopt the new paradigm often have been obligated to follow the lead of what were once new online upstart companies, like Amazon. Today, many brick-and-mortar retailers have discovered that online e-tailing can actually be a lower-risk strategy to introduce their products and brands into new market places.

Innovative business systems driven by new technology have made access to information easier than ever. From the consumer's perspective, with a click of a mouse or a swipe of a smartphone or tablet screen, the consumer has access to product descriptions, user and professional reviews, easy price comparisons, and online bargains for more and more products than ever before. Indeed, the appetite for product information before purchase continues to grow and shows no sign of abating. Mobile devices have even invaded the brick-and-mortar retail environment, where many shoppers do online research before making a purchase in the store or even online for home delivery. This so-called showrooming is blurring the lines between traditional retailing and e-tailing.

But perhaps the most ground breaking digitally driven transformation for consumers in the global market has been the change in the point of sale. Instead of needing to flock to the megamall or stand in line at the



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supermarket, consumers can use the same tablet or smartphone they use to browse and text to buy products from anywhere they have an internet connection, which is increasingly everywhere, even in a car or an airplane. More and more consumers want the immediate gratification of the traditional retail store from their online experience, which online operators are struggling to provide through next day and even same day delivery, necessitating the wholesale revamping of supply chains.

These developments have created many intertwined issues, such as data management, data privacy and international tax concerns for companies, in addition to the transfer pricing challenges examined in this article. With much of online sales, it is not always easy to identify just where an actual sale takes place, or sometimes even who the purchaser is. This creates a whole host of issues for tax and transfer pricing. As consumer product companies expand into new markets through online sales, they must decide at what point and to what extent their operations will create local tax nexus. The term nexus describes the amount and degree of business activity that

must be present before a state can tax an entity's income. If a taxpayer has nexus in a particular state, the taxpayer must pay and collect or remit taxes in that state. When business expansion follows a dual channel approach through online sales, as well as brick-and-mortar operations, the issues can be even more complex. For instance, which is the bigger contributor to the overall business, the website or in-store environment – or do both drive sales to each other's channel? The answer to this question affects the share of the business's profits that might be subject to tax where its stores have nexus, as opposed to where its web operations have nexus.

If the business shares the channel to such an extent that it creates tax nexus, the business may be subjecting itself to taxes in many more jurisdictions. Particularly troublesome issues may arise in cases when customers are allowed to return online purchases to affiliated brick-and-mortar stores. For such returns, companies must consider whether the local store is allowed to exchange merchandise and what the correct transfer price is for returned items that are sold back to the e-commerce location. Another issue is whether the local store or warehouse is allowed to fulfil online purchases and what the associated transfer prices should be. Often, it is not readily apparent what adjustments must be made to the business model as business develops and as adaptations for local preferences are made. Thus, transfer pricing planning must be flexible enough to adjust as the business model changes.

The coexistence of online sales and brick-and-mortar operations in a new market outside the consumer product company's residence brings still other potential transfer pricing challenges. One issue is the proper remuneration to the website operating company. For instance, would it be appropriate to allocate expenses only to the local retail operations? How should advertising costs incurred to drive internet searches to the relevant website be treated? These questions raise still others, such as whether the local-country operations will have rights to use marketing intangibles beyond the ordinary course of business. If the local operators have the right to use the trade name only for retail sales, there may not be a need to allocate costs; instead the website operator could be remunerated in a different way. However, if the local company is expected to develop the trade name in its country, it may be expected to bear those costs. Consideration should be given to which entities may drive the decision-making process, which may take on substantive risk, and which will ultimately generate customer revenue. Addressing the transfer pricing issues among these entities requires a thorough analysis of the functions performed and risks assumed by each of the entities, and then determining the economic return associated with those functions and risk. In the new online world, the facts are often far from static, but change frequently as online presence grows. Accordingly, transfer pricing policies must be flexible enough to evolve in lockstep with the business itself.

Digitisation of supply chain

Consumer product companies are constantly looking for ways to drive more efficiency out of their supply chains to remain competitive and/or gain competitive advantage. Common modern supply chain optimisation strategies, such as the development of offshore manufacturing, captive sourcing companies and streamlined logistics have already been implemented by most large-scale consumer product companies. Typically, this may involve establishing a sourcing entity located close to the sources of supply, frequently in Asia. A sourcing entity's functions can range from simple ordering and logistics to design and management of the manufacturing operations.

To enhance consumer experience by anticipating trends and making relevant offerings, the most forward-looking consumer product companies have been putting in place increasingly sophisticated data-driven supply chain and customer relationship systems. Precise data regarding demand for products at a store-by-store level are also being used to rethink overall logistics. For example, common practice historically was to have suppliers, typically in Asia, fill a shipping container with goods for shipment to a local distribution centre to be unpacked along with goods from thousands of other containers. The goods would then be repacked to match demand at regional distribution centres, where they would then be repacked for delivery to the stores in a particular region. With precise store-by-store demand level data now increasingly available, goods from many suppliers destined for a particular regional distribution centre – or even goods destined for a single store – can be aggregated at the initial point of export and packed into a single container.

A key to using data effectively is making the knowledge developed from the raw data available to the various points in the supply chain where it can be used most efficiently. For example, many consumer product companies are pushing design activities closer to the source of the products, again typically in Asia. At best, it can take a few days to get samples or prototypes to the designers, typically located in home-country markets for review or approval. Centralising more design activities close to the source of supply can thus cut transit times out of the product design cycle. In addition, co-locating the design function with sourcing activities can take advantage of the sourcing staff's market intelligence on what other players in the market are thinking, as well as the knowledge of manufacturing processes and capabilities that can be incorporated into the product under development. Of course, companies must find ways to reap these advantages without losing the intimate knowledge of local consumers' desires that local employees often have.

Consumer products companies have also been improving their supply chains by pushing knowledge across the chain globally. Many US and European manufacturers, for instance, have developed significant know-how in lean manufacturing



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processes. In the past, the need for such know-how among Asian manufacturers was less pressing when the region offered significant labour cost advantages. Recently, however, labour cost advantages have been eroding and consumer product companies have accordingly been implementing lean manufacturing processes developed elsewhere in their Asia-based operations. Questions naturally arise as to whether companies may have transferred valuable intangible property in the process.

Efficiencies often are created by aligning knowledge obtained from data gathered as a result of digital globalisation to the point in the supply chain that can most effectively use that knowledge to reduce costs, increase quality, or secure a steady supply of product. This process usually involves four



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Keith has testified as a qualified expert in numerous valuation and transfer pricing disputes, including the cases of *Nestle Holdings Inc. v. Commissioner*, *DHL Corp. v. Commissioner*, and *United Parcel Service of America, Inc. v. Commissioner*. In addition, he is one of only three economists in the US approved by the New York State Department of Taxation and Finance to provide transfer pricing expertise and testimony in cases involving cross-border transactions within commonly controlled affiliated groups. He has also helped many clients to successfully resolve valuation and transfer pricing disputes before they reach trial.

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basic steps: (1) understanding what data are available; (2) gathering the relevant data; (3) turning raw data into useful knowledge through analysis; and (4) employing that knowledge to improve the operation of the supply chain. Each of these steps might be carried out by related entities located in different tax jurisdictions. This can make the allocation of income among the different contributors to the knowledge

creation process a challenge for international tax and transfer pricing purposes. Careful analysis is required to solve the resulting transfer pricing questions.

The first question to ask is whether the creation and use of the knowledge resulted in some distinctive value to the consumer product company, or whether it only allowed the company to remain competitive. Even if the innovation was only a competitive imperative and did not increase the global group's overall earnings, questions may remain about the appropriate allocation of costs and benefits. The issues can be particularly complex in the digital space. For example, in a situation when one company gathers and owns the data it collects, while another related company analyses the data. The value generated from use and analysis of data must be split between the two entities. When entities in multiple tax jurisdictions contributed to the creation of the distinctive value of the supply chain innovation, "one-sided" transfer pricing analyses such as the comparable profits method or transactional net margin method, which treat one of the entities as entitled to a routine return, may be less appropriate, and more complex methods, such as some form of profit split, may be called for.

Tax authorities' interest in these questions appears to be increasing, as evidenced by the Organisation of Economic Cooperation and Development's base erosion and profit shifting initiative. Tax authorities recognise that consumer product companies are implementing the systems to create the benefits and manage the costs related to digital globalisation that naturally cross international boundaries and appear less and less content to view the elements of the supply chain simply as routine operations.

Digital brand management

On the brand management side, technological advancements provide companies new avenues to support brands, while at the same time increasing the risk of potential mismanagement of brands. This change results in both opportunity and risk that intercompany pricing policies may not reflect adequately. Companies may be inadvertently creating another intangible, or they could be altering how their present intangibles are created. As digital marketing becomes increasingly important to brand value, companies should proactively consider the transfer pricing implications and the possibility of business-aligned tax planning.

It is important to consider what digital marketing is and how it is changing the way consumer products companies manage their brands. Direct digital access to consumers can present an attractive opportunity for companies to interact with consumers, cement their brand advocates and strengthen their revenue streams with innovative, effective information systems. The January 2014 Deloitte article in *The CIO Journal*, 2014 Consumer Products Industry Outlook, states that:

“[D]igital capabilities can help companies better identify consumer preferences and trends, optimize their product assortment, deliver personalized marketing messages, refine pricing and promotional strategies, and connect with target consumers.”

What has resulted from this digital bombardment of gizmos and interconnectivity is a profoundly more personal brand experience for many consumers. Social media has opened the door to two-way communication between brand holders and their customers. A November 2013 study of retailers found on Deloitte.com, “Gaps in the digital net: How retailers can close the risk holes,” indicates that:

“[M]ost companies have not only developed sophisticated sites with e-commerce capabilities, they have also set up Facebook pages to connect with customers, and offer mobile apps that provide a range of services. Many modern retailers are capitalizing on this information exchange by putting the social media provided demographic data together with previous behaviours to create individualized customer experiences.”

Participation within the social media sphere allows consumers to share experiences, strengthen support and advocate for their products and services. The mining of data collected as part of the consumer’s use of a company’s website can also allow the company to micro-target their consumers, and through tailored emails and other digital media, send information regarding promotions and/or new product offerings.

While digital marketing has presented great opportunities for brands, it has also increased the risks to companies for potential brand mismanagement because the transparent, peer-to-peer nature of the medium makes controlling brand messages difficult. It’s not unusual for one disgruntled customer to spread a brand-damaging message to millions of people with a simple click of a mouse or tap on a smartphone touch screen. Companies now face the risk of potential incidents that if mismanaged could lead to a loss of reputation and even brand destruction. The speed of communication can mean that even initially successful digital campaigns can turn negative rapidly. Even well-intended online promotions can be met with overwhelming responses that can crash sites and turn fans into adversaries. The collection and storing of sensitive data can also attract hackers and other criminals. Such events inevitably have an adverse impact on brand reputation. These risks have only increased the need for strong management of digital marketing.

The main international tax and transfer pricing challenge is that most tax structures and policies were put in place before the explosion in digital marketing. Historically, marketing intangibles were generally attributed to a combination of the corporate headquarters that provided global brand management and the in-country marketing team that adjusted the brand message for local tastes and invested in



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the local market. However, with the increase in digital marketing, a third contributor is arising: the social media monitor and digital marketer, and it’s important to consider how to treat its activities. For instance, are those activities generating non-routine intangibles? Should the associated risks and costs be centralised, and if so, how and where and who, within the group, is responsible for digital brand mismanagement?

Successful brand/marketing campaigns that capture user-generated content and that encourage consumers to advocate for the products they like is not the end of the story. Frequently, initiatives that are effective in the digital space get rolled out on a global scale, but sometimes with sporadic geographic efficiency, making it even more difficult for companies to pinpoint which initiatives are effective at encouraging consumers to buy and sell, and which are lost in the background noise online. Companies should consider taking a fresh look at their transfer pricing structures to see if a realignment is necessary to be consistent with the realities of the new digital landscape. Of course, any planned operational changes

require careful consideration of all the tax ramifications, in addition to reviewing the transfer pricing issues.

Conclusion

As consumer product industry participants continue to upgrade and improve their use of data, the internet and mobile applications, and rework their sales channels, supply chains and brand management, tax departments must consider the effect these changes will have on existing international tax and transfer pricing structures and policies. Careful planning in this area is becoming more important, given the speed of change and the potential scale of the impact digital globalisation can have.

TP in the manufacturing sector: Transformation and new challenges

The manufacturing sector is entering an era of complex transformation, driven by shifts in globalisation and demand, rapid innovations and the rise of new players in the emerging markets. **Kaoru Dahm, Richard Sciacca, Juan Sebastian Lleras and Daisuke Hagiwara** discuss the key trends and transfer pricing challenges arising from this transformation.

The manufacturing sector continues to be the chief wealth-producing sector of the global economy and involves a large volume and variety of complex cross-border transactions, including tangible property, intangible property, services and financial transactions. The nature of inter-company transactions evolves as multinational enterprises (MNEs) adapt to the transformation of the sector through renewed business models and value chains to improve their agility within the rapidly changing environment. Because of the large size of cross-border transactions, proper transfer pricing planning is important for MNEs in managing not only their tax risks, but more importantly their financial results. At the same time, because of the volume and increasing complexity of intercompany transactions and their significant impact on tax revenue base, the sector has attracted and will likely continue to attract high levels of attention and scrutiny from tax authorities around the world.

The manufacturing sector continues to grow on a global scale. Global manufacturing output rose by 5.1% (3.3% in industrialised countries and 9.4% in developing and emerging industrial economies) in the first quarter of 2014, the highest rate in several years. This rate was supported by high growth in the production of durable goods, such as household equipment, electronic goods and motor vehicles, according to the UN Industrial Development Organization's (UNIDO) "Global manufacturing recovering but growth prospects for developing and emerging industrial economies remain fragile," June 11 2014, <http://unido.org/news/press/global-economic.html>.

The manufacturing sector is a diverse sector consisting of many industries and employs a large share of the labour force around the world. The sector provides products that are required by industries of strategic importance, such as national infrastructure and defence, as well as products that are indispensable in our daily lives. Many governments; therefore, are adopting more strategic approaches in making investments and policy decisions that are necessary to achieve overall economic prosperity through the promotion of the innovation capability and to become competitive in the manufacturing sector.

MNEs in the manufacturing sector should continue to navigate through the risks arising from uncertainty in factors such as material prices, government regulations, political climate, currency exchange rate movement and consumer demand. In addition, rapidly expanding global markets, technological advances and the aftermath of the Great Recession of 2007 to 2009 present many MNEs with a series of transfer pricing challenges, some of which involve traditional issues that continue to be debated in the tax and

business community, whereas others are relatively new issues that increase the level of uncertainty in transfer pricing risk and global business management, and may require a fresh look at traditional transfer pricing approaches.

This article discusses key trends in five primary industries in the manufacturing sector and provides an overview of newly arising transfer pricing challenges resulting from the transformation of the sector. The insights provided should help MNEs prepare for the increase in complex transfer pricing issues challenging the manufacturing sector.

Key trends by industry

Aerospace and defence industry

The global aerospace and defence (A&D) industry revenue growth rate declined from 5.9% in 2012 to 3.1% in 2013, according to Deloitte Touche Tohmatsu Limited's "2014 Global Aerospace and Defence Sector Financial Performance Study" published in July 2014. Despite the slowdown, the industry still added US\$21.4 billion in revenues, the second largest annual increase over the last five years. Total global industry revenues exceeded US\$700 billion, an overall record, with improved operating efficiencies, higher profits and higher margins. This is the second year in a row that industry growth was above global GDP growth, which in 2013 was 2.2%. Rate increases for commercial aerospace, new product introductions and a flattening of government defence spending rates in the United States and Europe are expected over the next few years. Therefore, it is likely that above-average revenue growth will continue, driven largely by growth in commercial aerospace, where long-term increases in demand for travel, specifically in China, India, and the Middle East, as well as the need for more fuel-efficient aircraft, appear to support the view that aircraft sales demand and production volume is likely to grow.

Although US companies continue to dominate the A&D industry, it is becoming more global. US-based sector companies account for 59% of A&D global industry revenues. European-headquartered companies represent 34.2% of total revenues and the remainder was from companies headquartered in Brazil, Canada, Japan and other countries. Though this geographic makeup has been relatively constant for the past few years, over the longer term, US dominance has declined as non-US-based A&D companies continue to grow.

With the sector's increasing globalisation, many A&D companies are developing, manufacturing and selling some of their products in nondomestic markets. Thus, revenues based on a company's headquarters location will likely become less important, compared to where revenues are generated. Many US and European A&D companies have invested in manufacturing operations in China, Mexico, North Africa and Poland, as well as other geographies. This is significant because no major publicly held A&D companies are headquartered in those countries, yet a large number of workers are employed

in the sector. Many European companies are generating increased revenues in the Middle East, the United States and other areas. Similarly, US companies are generating increased revenues in Australia, India, Japan, Saudi Arabia, South Korea, United Arab Emirates and other nondomestic markets.

Automotive industry

The automotive industry experienced a difficult volume decline in the recent economic downturn that started in 2007 with the US subprime mortgage crisis, followed by a notable comeback. In the United States, car and light truck sales climbed in June 2014 to a level not seen since before the financial crisis that led to the bankruptcy of two of the Detroit Big Three auto makers. Growth is also particularly strong in China, which is now the largest market by volume globally, according to the Wall Street Journal's "China's passenger Car Sales Rise by 21% In September," October 11 2013. Even European volumes are rising in 2014, for the first time in six years ("European Car Sales Continue Bumpy Recovery," Wall Street Journal, July 17 2014.). By 2012, global auto industry profits among top automotive makers were higher than in 2007, the last pre-crisis year ("The Road to 2020 and Beyond: What's Driving the Global Automotive Industry?" by McKinsey & Company, August 2013). In 2007, 53.2 million passenger cars were produced worldwide, whereas in 2013, that number increased to 65.4 million ("Worldwide Automobile Production from 2000 to 2013 (in Million Vehicles)" by Statista, via <http://www.statista.com/statistics/262747/worldwide-automobile-production-since-2000/>).

Major enablers of the automotive sector's performance include the GDP of the BRIC countries (Brazil, Russia, India and China), per capita disposable income around the world, oil prices and input prices. Rising incomes in the BRIC countries led to an increase in the demand for motor vehicles. Western auto makers moved production facilities to the BRIC countries to tap into those markets and benefit from low-cost labour. Looking forward, the automotive industry in more mature economies (Japan, the United States and Western Europe) is expected to grow relatively slowly, while emerging economies will grow faster. Global car and automotive manufacturing industry revenue is forecasted to grow to US\$2.6 trillion in 2018, according to IBISWorld's "Industry Report C2531-GL: Global Car and Automobile Manufacturing," published December 2013.

The automotive industry's globalisation trend is expected to continue. Increases in international trade accounted for about a third of all revenue movements during recent years, according to the IBISWorld report, and industry globalisation is reflected in the operation of offshore and outsourced locations. With globalisation, many large auto makers have promptly adapted to the needs of individual markets by shifting production to those countries and by forming

alliances with overseas manufacturers. Various forms of partnership exist between European, Japanese and US auto makers, including capital and technical tie-ups and joint R&D and production operations. Furthermore, major auto makers are pursuing relationships with local manufacturers in China, India and countries in the Southeast Asian region. We expect to see more mergers and acquisitions in this industry, particularly as auto makers expand operations in Eastern Europe, Southeast Asia and South America, seeking access to increasing demand in the emerging markets and cost reductions.

The industry is experiencing rapid changes, including notable technological innovations (such as increasing consumer preference toward connectivity in vehicles), tightened environmental requirements (for instance, significant pressure to develop more fuel-efficient and alternative fuel vehicles) and specific features of emerging markets, including the rise of new players in the emerging markets. The impact of these changes on MNEs in the automotive industry is expected to be encouraging. High-tech equipment, such as in-vehicle telematics that provide drivers with instant safety and communication services as well as “infotainment” services, are expected to become a standard feature in vehicles in the near future. Practical applications also include voice-assisted driving directions, vehicle failure detection and vehicle-to-vehicle communications to confirm vehicles keep a safe distance from each other to avoid collisions. Many auto makers will likely invest and engage in R&D activities to develop more fuel-efficient vehicles, and relevant technologies may include fuel cell technology in hydrogen-powered vehicles, ethanol vehicles and plug-in hybrid electric vehicles. Auto makers are increasingly pressured to develop global platforms upon which vehicles are designed, engineered and produced, to initially leverage the most capital-intensive equipment and resources, and later localise them for regional preferences. To carry on and succeed, auto makers must nimbly recognise the evolution of consumer vision and preference.

With these new developments and trends, the automotive industry is transforming from a traditional vertical structure to a more horizontal structure whereby auto makers may procure electronic components from semiconductor companies or obtain network services from telecommunication companies to respond to changes in consumer preference toward greater fuel efficiency and connectivity in vehicles. As the automotive sector invests significantly in the development of hybrid and electric vehicles, as well as in telematics, companies that did not historically supply products to auto makers may become major suppliers to the automotive industry. These recent developments have changed the landscape of the automotive industry, and it is important for manufacturers to identify cross-industrial and cross-regional opportunities, while being aware of business and tax requirements across industries and markets.

Chemical industry

The petrochemical manufacturing industry serves an important role in the global economy, because its products are used as fundamental building blocks to produce consumer and industrial products. The US petrochemical industry experienced a significant decline in revenues following the 2007-2009 recession, but it gained traction in 2010 with a 47% increase in industry revenue, according to “IBISWorld Industry Report 32511: Petrochemical Manufacturing in the US,” published in April 2014.

An important factor influencing the petrochemical manufacturing industry is downstream demand, and the performance of the manufacturing sector has a significant bearing on industry performance. The recovery of the general economy and market demand, coupled with the boom in the production of natural gas – a key input for the petrochemical manufacturing industry – due to the proliferation of fracking and horizontal drilling in the United States in recent years, have also helped chemical industry profit margins considerably, rising from 5% of revenue in 2009 to 15.2% in 2014, according to the IBIS industry report.

The abundance of natural gas and its comparatively cheap price compared with alternative raw materials, such as crude oil, has also attracted manufacturers further downstream. Over 90 chemical and plastics projects have been announced in North America, totalling US\$71.7 billion in private capital investment in new plant and equipment by 2020 (“Magnet Industry Reports: Chemicals – North America,” February 2014, Magnet, Inc.). This is also supported by increases in fixed asset investments in the chemical products industry in the United States, which grew from US\$95.9 billion in 2007 to US\$106.6 billion in 2012. (“Investment in Private Fixed Assets by Industry” by US Bureau of Economic Analysis.)

As lower key input prices continue to provide US-based manufacturers with a significant competitive advantage relative to other regions in the world, foreign-based chemical manufacturers are expected to shift production to the United States to remain competitive. For example, Germany’s BASF SE, the world’s largest chemical manufacturer by revenue, has doubled its annual average investments in its U.S. plants to US\$1 billion a year in 2012 (“BASF Steps Up Investment in U.S.: Economic Recovery, Shale-Oil Boom Spur a Shift for the Chemical Giant,” Wall Street Journal, December 17 2013), and Sasol Ltd., a South African integrated energy and chemical company, invested about US\$21 billion in at least nine Louisiana plants that are expected to begin production in 2017, according to the 2014 Magnet Industry Report on Chemicals in North America. To counter the inherent reliance on regionally tied key raw materials, such as natural gas and crude oil, many chemical manufacturers are spreading their operations globally, switching between countries and regions to procure cost-advantaged feedstock to help alleviate the effects of highly volatile energy prices. “IBISWorld

Industry Report 32511: Petrochemical Manufacturing in the US,” April 2014.

Industrial products industry

The growth in the industrial products manufacturing industry is constrained by the pace of GDP growth; hence, the economy’s growth rate is a determining factor for the performance of this industry. The US economy grew at a 3.1% rate between the fourth quarter of 2012 and the fourth quarter of 2013, according to the “National Income and Product Accounts Gross Domestic Product: Second Quarter 2014 (Advance Estimate),” by US Bureau of Economic Analysis. Growth is expected to continue until 2017. After 2017, the growth rate is expected to slow to a rate of 2%, according to the Congressional Budget Office’s *Budget and Economic Outlook, 2014-2014*, published February 2014.

The European economies also have experienced growth since the second quarter of 2013. The EU economy is expected to grow in the short term, but at a slower pace than that of the United States. Forecasted growth rates for the EU are 1.5% in 2014, 1.2% in 2015, and 1.8% in 2016, according to the European Commission’s *European Economic Forecast, Winter 2014*. Likewise, Japan’s growth rate is expected to remain stable at around 1.5% until 2016. Among emerging market economies, the picture is mixed. There are continued signs of weakness in Russia and Brazil, some stabilisation at more sustainable growth rates in China, and an improved outlook for India.

Given the dependence of the industrial products manufacturing industry on overall economic growth, this sector is expected to experience slow (when compared to historical averages) but steady growth in the next few years. In addition, the global landscape of the industrial products industry might be further influenced in the upcoming years by three trends: rising interest rates, re-shoring of US manufacturing and innovation in manufacturing processes. Should the increase in interest rates be larger or more rapid than expected, the resulting disruption to both US and worldwide economic growth could significantly affect this industry, according to *Top Industry Trends to Watch in 2014*, GE Capital Americas, <http://www.americas.gecapital.com/insight-and-ideas/capital-perspectives/top-industry-trends-to-watch-in-2014>.

Global economic trends are having a large impact on the industrial products industry. One trend that is expected to be reversed is the offshoring of US manufacturing. According to The Boston Consulting Group, the United States is expected to witness a manufacturing resurgence due to a shrinking wage gap with China. Net labour costs for manufacturing in China and the United States are expected to converge by 2015. This has led some companies to bring manufacturing back to the United States, as discussed in *Top Industry Trends to Watch in 2014*.

Another factor likely to influence the resurgence of US manufacturing is the ongoing downward trend of natural gas

prices. Since 2005, wholesale prices of natural gas in the United States have decreased by over 50%. Natural gas currently costs more than three times as much in China, France and Germany than in the United States, and nearly four times as much in Japan. Boston Consulting Group estimates that by 2015, natural gas will account for only 2% of average US manufacturing costs and electricity will account for just 1%. By contrast, natural gas and electricity combined will account for between 7% and 13% of manufacturing costs in Japan and in Europe’s major exporting economies, and about 6% in China. This decrease in energy prices will make the US manufacturing industry more competitive globally, and likely bring back to the United States some manufacturing jobs that were sent offshore in the previous decades.

Metals industry

The metals industry supplies a wide variety of other industries and markets with key manufacturing inputs. Demand in the metals industry is volatile, because it supplies a wide range of highly cyclical industries such as construction, motor vehicles and machinery industries. Therefore, the performance of the metals industry is influenced by changes in the general economy and consumer demand that impact these downstream industries. Among these, construction and motor vehicle industries represent two of the largest downstream markets for the metals industry, and demand from those markets is anticipated to drive steel consumption in particular, according to “Magnet Industry Reports: Metal Works – North America,” May 2014, Magnet, Inc. Other key industry factors include the prices of energy and other key inputs, such as crude oil and natural gas.

The price of nonferrous metals increased rapidly prior to the recession of 2007-2009 due primarily to the strong growth in the US construction industry, as well as the rapid industrialisation of China and India. As the recession spread across the globe in 2008 and 2009, however, average prices for nonferrous metals fell by 14.2% relative to 2008 prices, as construction demand in China, India and the United States plummeted (“IBISWorld Business Environment Report: Price of Nonferrous Metals,” February 2014). Demand for nonferrous metals quickly rebounded in 2010 as the global economy gradually recovered from the recession. Price growth for nonferrous metals is expected to level off to an annualized rate of 4% from 2014 to 2019, because of excessive investment in mines before the recession and slower growth in China and the United States, according to the Magnet Industry Report.

The demand for aluminium, the third most used material in motor vehicles after steel and iron, has grown significantly in recent years as auto makers seek to improve fuel efficiency. This demand is likely to continue to grow as consumers become more environmentally conscious, and auto makers strive to design more fuel efficient motor vehicles by shedding

weight. The US market for aluminium sheet, which totalled less than 200 million pounds in 2012, is expected to total one billion pounds in 2014, according to the Magnet Industry Report on Metal Works in North America. While auto makers' shift to lighter materials has created competition for traditional raw materials such as steel, steel will likely remain an important input for the automotive industry due to its competitive advantages in cost and mass production. "IBISWorld Industry Report 33111: Iron & Steel Manufacturing in the US," April 2014. This increased focus on light-weight material has also facilitated the development of new steel products, such as the ultralight steel auto body.

While US production of steel has risen in recent years, China remains the single largest supplier of crude steel, accounting for 49.2% of crude steel production globally. Thus, US manufacturers of steel and iron face global competition, with a sizable portion of US demand satisfied by foreign-based suppliers. The presence of US-based steel and iron manufacturers abroad has also increased as demand for steel and iron continue to be driven by emerging markets such as China and India, according to the IBISWorld Industry Report.

Common operating structures in the manufacturing sector

Manufacturers' operating structures are often described by the following commonly used terms according to their risk profiles and economic characterisations: (i) entrepreneur; (ii) licenced manufacturer; (iii) contract manufacturer; and (iv) toll manufacturer. Although the boundaries between these terms are sometimes unclear and they may oversimplify complex manufacturing profiles, these terms summarising manufacturer risk and functional profiles are often useful in describing typical transfer pricing issues associated with the manufacturing sector. We provide practical illustrations of these four operating structures and associated intercompany transactions below.

Entrepreneur/full-fledged manufacturer

An entrepreneur, or a full-fledged manufacturer, may be responsible for activities such as production planning, input procurement, supply chain management, quality control, long-term capacity utilisation planning and potentially selling to third-party customers. A full-fledged manufacturer that possesses routine intangibles bears a range of risks associated with those activities, such as product liability, warranty, capacity utilization, market demand and pricing risks. A full-fledged manufacturer/entrepreneur also may be engaged in significant R&D activities, bearing risks associated with development, maintenance and protection of valuable intangible property that may result from the R&D activities.

An entrepreneur manufacturer earns returns on routine functions (including routine manufacturing operations) and on its contribution toward valuable intangibles. For example,

in a simplified model with one entrepreneur and many non-entrepreneurial entities in an MNE group's value chain, non-entrepreneurial entities (such as limited-risk entities) earn returns on routine functions based, for example, on benchmark profitability established from functionally comparable companies. The entrepreneur receives all residual profits or losses from the value chain. In this system, the non-entrepreneurial entities' profitability tends to be relatively stable, as it is subject to a fixed benchmark profitability range, whereas the entrepreneur manufacturer's profitability can vary significantly (reflecting the entrepreneur's higher risk profile) in line with the group's aggregated profit level. This profit-based transfer pricing framework works well when there are sufficient profits in the group's value chain. If there are group losses, the manufacturer entrepreneur will incur all group losses, and this framework may create "phantom taxable income" at the non-entrepreneurial entities by assigning routine profits to them. Under difficult circumstances (such as the significant economic downturn witnessed in 2008-2009), the relative reliability of this profit-based framework may appear poor in comparison to alternative approaches, such as a profit splits/loss splits.

Licensed manufacturer

A licensed manufacturer produces goods under a licence agreement, using manufacturing intangibles owned by the licensor, such as patents, product designs, manufacturing process and know-how. The licenced manufacturer pays royalties for the use of the licenced intangibles, typically buys raw materials and semi-finished goods on its own account and holds inventories of the raw materials and finished goods. Therefore, it bears the risks associated with both holding inventories and selling products, including demand and pricing risk. The licenced manufacturer typically owns plant and equipment necessary for manufacturing operations and invests in training its labour force.

As illustrated in Exhibit 1, intercompany transactions under this framework often include tangible property transactions, intangible property transactions and services transactions that may be highly interrelated. For example, in its manufacturing operations, a licenced manufacturer may use specially designed equipment purchased from the licensor, high-quality components supplied by the licensor, valuable production process know-how developed and owned by the licensor, valuable testing services, technical support and quality assurance protocols provided by the licensor. The licenced manufacturer's operating profits; therefore, are driven by value derived from tangible property, licenced intangible property and services. In profit-based transfer pricing analysis, in particular, it is important to recognise the potentially interdependent nature of multiple intercompany transactions and consider review of results aggregating several categories of intercompany transactions. Compensation for a licenced

manufacturer is often best determined as a limited-risk return in line with industry benchmarks established from functional-ly comparable manufacturing companies' operating results.

Contract manufacturer

A contract manufacturer is generally thought of as less risky than a typical licenced manufacturer. The contract manufacturer produces goods for a manufacturing principal that directly bears demand and final customer pricing risk. Provided the products made by the contract manufacturer comply with the principal's product and quality specifications, the principal may guarantee to purchase the goods. Therefore, the contract manufacturer may bear relatively limited risks associated with holding finished goods and selling them, compared with a licenced manufacturer. The contract manufacturer typically owns plant and equipment and procures/owns raw materials, and thus still bears the risks associated with holding fixed assets and raw material inventory. In many instances; however, a manufacturer may perform some "contract manufacturing" activities that are ancillary to its licenced or full-fledged manufacturing activities.

As illustrated in Exhibit 2, a typical intercompany transaction between a manufacturing principal and a contract manufacturer is the contract manufacturer's sale of manufactured goods to the principal. The contract manufacturer is compensated by the principal typically through a return to enable the contract manufacturer to earn an arm's-length mark-up on total costs, that is, a return on value-added manufacturing services reflecting a return on its capital investments and investments in raw material inventory.

Toll manufacturer

Under a toll manufacturer framework, the principal retains title to the raw materials, work-in-process and final products during the manufacturing process. As illustrated in Exhibit 3, the related-party manufacturing principal owns raw materials and makes them available to the toll manufacturer for processing (that is, the toll manufacturer does not take title to raw materials). The toll manufacturer performs processing services, and is compensated by the manufacturing principal through a toll manufacturing fee that is typically calculated as a mark-up on processing costs. The manufacturing principal bears the risks associated with holding raw materials and finished goods inventory, as well as final demand and price risks.

Transfer pricing issues in the manufacturing sector

The nature of intercompany transactions in the manufacturing sector continues to evolve as MNEs adapt to the transformation of the sector through renewed business models and structures to attain operational efficiencies and agility to meet the changes, as well as better access to growing demand. At the same time, traditional transfer pricing issues in the

Exhibit 1 Illustration of licenced manufacturer structure

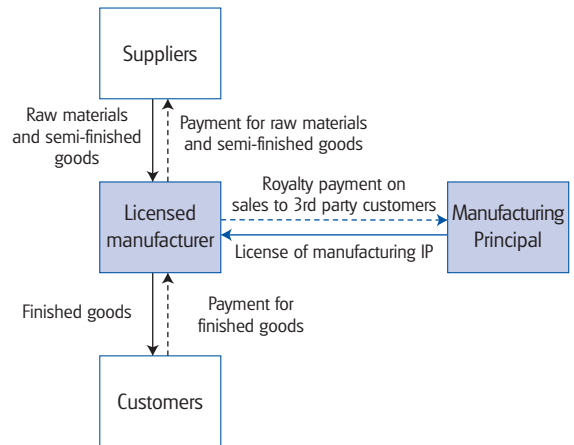


Exhibit 2 Illustration of contract manufacturer structure

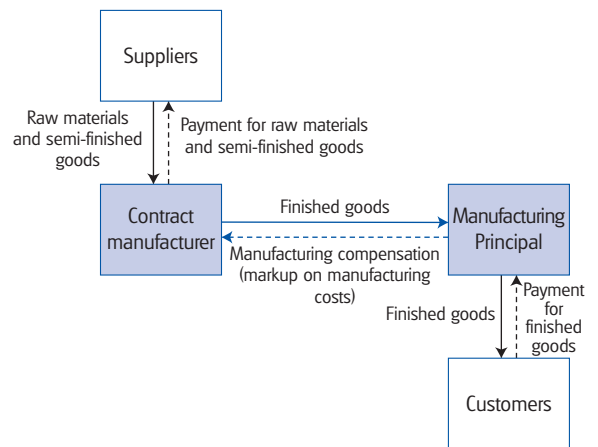
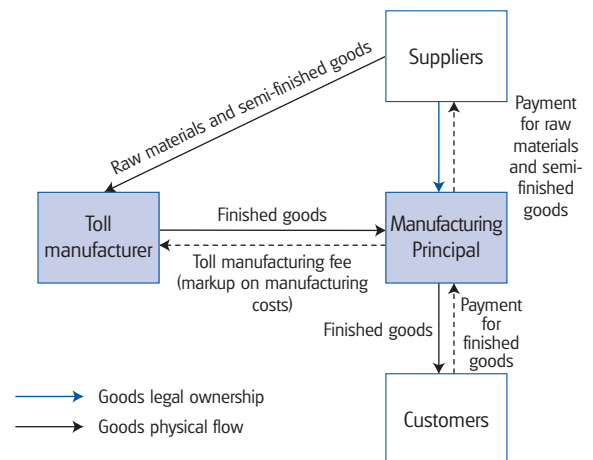


Exhibit 3 Illustration of toll manufacturer structure



→ Goods legal ownership
→ Goods physical flow

manufacturing sector continue to be important in addressing transfer pricing risks. Those traditional issues include:

- Comparable selection challenges (lack of “good” comparable companies in some industries and geographic regions, requiring the performance of challenging comparability adjustments);
- The interdependence of various transactions (integrated transactions requiring aggregation or “bundled” approaches over a relatively long industry/product cycle);
- Issues related to location-specific factors (for example, conflicting views between tax authorities and taxpayers particularly, with respect to the allocation of net benefits derived from the factors); and
- Issues related to restructuring (for example, articulation and documentation of economic substance of certain restructuring transactions, such as the conversion from licenced manufacturer to contract manufacturer).

These relatively traditional issues continue to be widely debated in negotiations with tax authorities around the world and explored in research papers.

This section focuses on new transfer pricing challenges arising with the transformation of the manufacturing sector, and provides an overview of anticipated issues, including: (i) a potential shift from a single tested party to a multiple tested party framework; (ii) a trend toward region-focused business models from centralised models with the globalisation of the sector; and (iii) rapid technological innovation and its implication for MNEs’ intangible property strategies.

From single tested party to multiple tested party framework

The Great Recession, which officially started in December 2007 and ended in June of 2009, according to the National Bureau of Economic Research (NBER), impacted all industries, but the severity, timing and duration of impact varied substantially throughout the different industries. Durable goods manufacturing, including transportation equipment (including motor vehicles), fabricated metal and machinery, were among the hardest hit. Many notable MNEs in those sectors reported significantly decreased sales and profits relative to pre-recession years, or operating losses on a consolidated basis during the recession. In such difficult business conditions, when there is no group profit (or very low profit), we witnessed a significantly heightened risk of phantom taxable income creation among MNEs that had previously implemented a transfer pricing policy based on a historically, widely accepted single tested party approach, such as the comparable profits method (CPM).

A single tested party approach is an approach to set a profitability benchmark (usually a range) for the entity that performs more limited functions and bears more limited risks relative to the other entity engaged in the intercompany transactions. If a licenced manufacturer (a subsidiary) in country A is expected to earn a minimum functional return

(for example, at least 2% operating profit margin) under a CPM-based transfer pricing policy while there is no aggregate profit for a licensor – the parent company in country B and its subsidiary – does the licensor reduce royalty charges to the subsidiary to allow the subsidiary to earn 2% margin?

To answer this and similar questions, MNEs must consider how to treat and quantify the impact on profitability, for transfer pricing purposes, of factors such as significant sales declines, asset impairment resulting from recession-induced sales declines, restructuring expenses resulting from plant closures and personnel layoffs forced by the recession, capacity underutilisation due to reduced production volume and in some instances, potential impact of significant currency exchange rate fluctuations. MNEs must carefully analyse if the subsidiary is “free” from the risks associated with all these factors. Under these circumstances, tax authorities in country A may assert that there is no reason to deviate from the company’s policy and the subsidiary will earn 2% margin in light of its relatively limited risk profile regardless of the group’s overall profitability, whereas tax authorities in country B will assert that the royalty payment will not be reduced because the intangible property remains valuable and the losses are due to uncontrollable, extraordinary factors – the unprecedented economic downturn.

Many recession-affected MNEs encountered the choice between (i) continuing with the single tested party policy to “create” phantom taxable income in the countries where relatively limited risk entities operate, and (ii) deviating from this transfer pricing policy (that was implemented in pre-recession years) at the risk of inviting challenges from the tax authorities of the countries where the limited-risk entities are located. Single tested party policies presented their limitations and challenges in practice under extraordinary circumstances. As we approach the extreme ends (good or bad) of the spectrum of business circumstances, the ambiguity of the definition of “limited-risk” entity becomes important in transfer pricing planning.

A multiple-party risk-sharing framework may be more consistent with the tenor implied by the OECD’s BEPS initiative. As indicated in the “Action Plan on Base Erosion and Profit Shifting” issued July 19 2013, the OECD emphasises value creation in highly integrated groups and recognises the need for greater transparency to evaluate and limit potential disconnects between where money and investments are made and where MNEs report profits for tax purposes. To encourage transfer pricing outcomes with appropriate returns earned where commercial value is created, the BEPS initiative suggests that it may become necessary to review an entire value chain and review functions and risks of each entity in the value chain, rather than taking two entities in the chain at a time and determining a profitability benchmark for the entity whose functions and risks are more limited than the other.

The country-by-country reporting template proposed in the “Discussion Draft on Transfer Pricing Documentation



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Kaoru has been recognised as one of the world's leading transfer pricing advisors in *Euromoney's "Expert Guide to the World's Leading Transfer Pricing Advisers"* and in *"Expert Guide to the World's Leading Women in Business Law: Transfer Pricing."* Her publications (with co-author(s)) in professional journals include "New Services and Intangibles Regulations: IRS Changes the Mix" in *Tax Management Transfer Pricing Report* (August 16 2006), which was also published in *Tax Management International Journal* (Vol. 35, No. 11, 11/10/2006), "A Framework for Analyzing Transfer Pricing under U.S. FIN 48" in *International Taxation* (Vol. 28, September 2008), "Is It Time to Revisit Transfer Pricing Planning?" in *Tax Notes International* (March 8 2010), and "Similarities and Differences in U.S. and Japanese Transfer Pricing Documentations" in *Kokuzei Sokuho* (June 10 2011). Kaoru is a frequent speaker at business and professional conferences.

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and CbC Reporting" the OECD issued in January 2014 (and subsequently revised in response to comments received on the January draft) calls for MNEs to organise important information (such as sales, cash tax paid, and tax accrued) by country or by business division in a template, which can be shared among different countries' tax authorities through the exchange of information provision of relevant tax treaties. A profit/loss-split-based pricing policy (that covers a whole value chain) may be suitable in an environment where greater transparency in a value chain is expected.

Centralised model vs. region-focused model

One significant implication of operations in emerging markets is the impact on how certain manufacturing industries operate. Historically, heavy R&D activities tend to be performed and centrally managed by an MNE group's headquarters (HQs), or at a parent company level. Foreign subsidiaries in emerging market locations tend to perform some engineering and R&D activities, but those activities are often limited to "localisation activities" and are distinguished from "core" R&D activities that are performed at HQs. In addition, to achieve efficiency and realise economies of scale, some key manufacturing assets and intangibles (such as automotive "platforms") have become global, whereby designs are used globally, and quality IT systems, and other important commercial functions are managed on a global basis rather than regionally or by country.

By contrast, consider the automotive sector in India. India's per-capita GDP is still small, but vehicle unit sales were growing by double digits every year after the recession until recently, when low economic growth, high interest rates, and fuel prices have slowed down car sales, according to "Car sales in India down for 2nd year running; job loss pegged at 1.5 lakh," *The Times of India*, April 11 2014. The Indian car market is currently dominated by three firms – Maruti Suzuki, Tata Motors and Korea-based Hyundai. The Detroit Big Three and Japanese Big Three original equipment manufacturers (OEMs) have very small market shares there, while Suzuki, the early entrant to the Indian market, has benefited significantly from its first-mover status in the market and its partnership with India's national company.

The Indian passenger car market is also characterised by the significant popularity of compact cars for their ability to turn in a small radius, high manoeuvrability in congested streets and affordable prices. See "The Automotive Industry: At the Threshold of a New Era: Potentials and Challenges in the Fast-Growing Indian Automobile Industry" by Deloitte Tohmatsu Consulting, October 2010. For many Indian consumers, purchasing a passenger car is a major decision and consumers place greater importance on word-of-mouth information, in addition to direct communications with dealers. Therefore, each maker must consider designing a sales network strategy that takes into account its relationship with

local business partners, as well as competitors' sales network, to reach out to the targeted consumers. On the product planning side, car makers must adapt to Indian consumers' value for money principle, define necessary specifications and R&D activities in India, and, if necessary, depart from the quality standard that Big Three auto makers have adhered to on a global scale. Certain standard features in the United States may not be necessary in India.

To expand business in certain sectors in India, such as the automotive sector, manufacturers may need to resort to a region-specific, more decentralised strategy to establish an effective sales network and product planning that is appropriate for the distinctive Indian market. MNEs may have better agility to adapt themselves to the developments in emerging markets through a regional HQ model than a global HQ model. With a more decentralised business model to allow distinctive, region-specific product development and marketing strategies in some markets, a multitude of transfer pricing questions will arise: which entities will own the intangible property that may result from R&D and/or marketing activities performed at a regional HQ? What functions will be moved to the regional HQ, and what functions will be shared between the parent and a regional HQ? How should the value chain be transformed? Which entity will be responsible for making additional investment and finding qualified labour/engineers? What functions will be outsourced?

Innovation and intangible property strategy

Innovation capability is an important strategic capability for many manufacturers. Consumers demand innovation, and new products are introduced regularly. In the automotive sector, in addition to major vehicle model changes every four to five years, rapid technological innovations, such as hybrid power, enhanced safety features and smart computing continue to generate consumer interest. Hybrid electric technologies will continue to evolve and hybrid vehicles may be expected to gain greater mass-market relevance in the future. At the same time, auto makers are developing all-electric vehicle technology, and battery performance and cost are changing rapidly.

Automotive manufacturing illustrates that distinctive and challenging transfer pricing issues may result from innovation. According to a survey conducted by Deloitte Consulting, about 37% of respondents indicated that they want to stay as connected as possible while in their vehicles and 44% of those aged between 18 and 24 years rated connectivity as very important. Many drivers are already performing a variety of connected tasks in our cars, such as making phone calls and using navigation systems. But the survey respondents indicated connectivity beyond communications, such as entertainment content, remote vehicle control and remote diagnostics, are desirable. The connected vehicle industry continues to evolve and is affected by a number of factors, such as emerging



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Richard has been working on transfer pricing projects for the past 20 years and has specialised in APAs for the past seven years. His project experience includes more than 75 APAs, and in his former position with the IRS APA Office, he was the lead economics negotiator in complex bilateral negotiations with several tax authorities. He is co-leader of Deloitte's TP Automotive Industry Group, and is currently an APA and economics adviser to US, Japanese, and Korean automotive OEM and supplier APA clients. He also served as the APA Programme's Pharmaceutical Industry Group principal economist, and is currently an APA and economics adviser to well-known biotech and pharmaceutical clients. At the APA Programme, he was also the principal economist in coordination meetings with many tax authorities.

Before his IRS APA experience, Richard was a Deloitte transfer pricing economist principal for 12 years. His clients included numerous Fortune 500 companies doing business throughout the world. He has advised companies in many industries, and specialises in the automotive industry, health care and life sciences. He has successfully defended clients in audits conducted by the tax authorities, and is particularly experienced in working with attorneys from leading international law firms.

Richard also has significant litigation experience, serving as an expert witness in more than 20 actual and potential commercial litigation and transfer pricing cases. Richard is actively involved in training, and he developed training materials for Deloitte's US and global transfer pricing practice as well as for the IRS APA Programme.

technologies, consumer interests and demands, and connected service alternatives. Complex cross-industrial questions are arising: Should car makers offer free content in exchange for personally directed advertising? How to mitigate the liability risk of driver distraction? How to manage in-vehicle advertising? How to collaborate with electronics companies for hardware? How to collaborate with network companies? How to address the significant differences in product cycles (for example, network technology cycle, automotive body cycle, battery technology cycle)?

The implications for most auto makers and their business collaborators in response to these trends are significant and result in a number of new challenges. Convergence between the automotive, communications and technology industries is relatively new. Historically, automotive OEMs developed vehicle technologies in a relatively closed manner and at a more deliberate pace that mirrored vehicle development cycles. This new trend presents automotive OEMs opportunities to consider business models that focuses on safety and performance, and another that focuses on entertainment. Automotive OEMs have accelerated the development of new technologies, infrastructure, business models and marketing strategies to support those emerging services.

From a transfer pricing perspective, this trend can present complex issues: Who owns the marketing intangibles relevant to the telematics? Is it a service or are distinctive intangibles created? Where were the telematics R&D activities performed? The connected vehicle industry is likely to continue to mature over the next 10 to 15 years, and auto makers will likely be experimenting with new technologies and new infrastructures and developing required business models to deal with this trend.

Governments around the world have been instructing that vehicles become significantly more fuel efficient over the next several years. Consumers' expectations for range, charge time and purchase prices for green, fuel efficient vehicles, such as hybrid vehicles, plug-in hybrid vehicles and electric vehicles, are rising. China, Europe, Japan and the United States are all actively pursuing advances in technologies in this area. The

US and Chinese governments in particular have actively supported the advancement of technologies in this area. Technologies required for these new types of vehicles are very different from those required for traditional vehicles. No internal combustion engines and no transmissions are necessary, but battery and motor technologies are critical. Historic engine components required broad ranging coordination among parts suppliers and makers at the design stage, and this requirement for design coordination know-how and relationship with OEMs was a critical commercial characteristic in the automotive sector. R&D and manufacturing operations for electric vehicle components are more like modules and assembly of modules. The traditional design arrangements for the industry may change dramatically. For example, Tesla Motors, an electric vehicle venture based in Silicon Valley, procures important parts such as batteries from a Japanese company and motors from a Taiwanese company, as opposed to traditional vertical (Japanese Keiretsu, captive) structures with the OEM at the top. A number of transfer pricing issues may arise in this new dynamic value chain for the next generation of fuel-efficient vehicles.

Conclusion

The manufacturing sector is becoming global and increasingly cross-industrial. New market challenges and opportunities arising from the expansion of global markets and rapid innovations, together with the efforts toward operational efficiencies based on the lessons learned from the Great Recession and competitive pressures, are transforming the manufacturing sector. The transformation has driven many MNEs in the manufacturing sector to revisit their business/value chain structures and transfer pricing policies. Tax authorities of many countries are continuing to review MNEs' intercompany transactions closely. MNEs that proactively align their operations and address transfer pricing issues associated with the changes will be better positioned to successfully operate through this increasingly complex environment, and such proactive approaches can eventually contribute to MNEs' operating results and growth.

BEPS and financial transactions – Navigating uncertainty

Robert Plunkett and Bill Yohana address tax authorities' increasing scrutiny of cross-border financial transactions and discuss how to navigate the uncertainties surrounding the financial services sector.

Over the past decade, many tax authorities have increased their scrutiny of cross-border related-party financial transactions, including intragroup loans, credit guarantees and financial derivatives. The base erosion and profit shifting (BEPS) initiative launched by the Organisation for Economic Cooperation and Development (OECD) has further advanced this focus, along with the resolve of many tax authorities to address instances of perceived taxpayer abuse of financial transactions. Financial institutions will likely be particularly affected by the OECD's latest efforts, in light of their intensive use of debt and derivative contracts. Nonfinancial corporate taxpayers, particularly those with significant amounts of intragroup debt or with internal risk transfer agreements, such as captive insurers, may also be significantly affected. In this article, we discuss the genesis of this issue, areas that have already attracted the interest of tax authorities, and potential methods of managing intragroup financial transactions amid the uncertainty introduced by conflicting tax authorities.

Why are certain financial transactions a source of tax controversy?

For years, some tax authorities appeared to avoid detailed scrutiny of financial transactions. Certain tax authorities lacked the expertise and the access to data sources to evaluate whether a loan or other financial agreements were priced on arm's-length terms. Tax authorities, at times, lacked interest in taking on cases when the parameters used to price the transaction appeared to be relatively subjective. At the same time, both tax authorities and taxpayers had little guidance and precedents available.

Over the past five years, however, tax authority audit activity of financial transactions has increased significantly. Several factors have driven this trend. In many jurisdictions, the value of intragroup financial transactions has increased considerably (some tax authorities, such as the Australian Taxation Office, attribute the increase to potential tax planning opportunities), thereby increasing the potential revenue benefit from focusing on this area from a tax administration perspective. At the same time, many taxpayers have failed to document the pricing of their intragroup financial transactions carefully. As a result, what was once one of the last areas a tax authority would challenge, has, in many jurisdictions, become one of the first to be reviewed.

Coincident with this increase in tax authority scrutiny of financial transactions, the ambiguity associated with the guidance on pricing intragroup financial transactions also has increased. A significant source of this ambiguity is the change in how some taxation authorities have been applying

the arm's-length standard. The tax authorities of OECD member nations look to the OECD's Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations for guidance on limiting the risk of double taxation that may arise from a disagreement between two countries' tax authorities as to the proper transfer price of a cross-border transaction. The guidelines, in turn, refer to the OECD's Model Tax Convention on Income and on Capital. Article 9 of the Model Tax Convention defines the arm's-length principle as follows:

[Where] conditions are made or imposed between the two enterprises in their commercial or financial relations which differ from those which would be made between independent enterprises, then any profits which would, but for those conditions, have accrued to one of the enterprises, but, by reason of those conditions, have not so accrued, may be included in the profits of that enterprise and taxed accordingly.

A key source of ambiguity in the OECD's definition of the arm's-length standard is what constitutes an "independent" transaction. While most taxpayers have traditionally construed this to mean transactions between parties that are wholly independent, without the influence of related parties, some tax authorities have argued that a transaction between a subsidiary of a multinational and a third party (where the relationship between the subsidiary and its parent may influence how the third party evaluates the transaction) is also an independent transaction. They have made this argument despite OECD guidance in paragraph 1.6 of the OECD Transfer Pricing Guidelines that the arm's-length standard "follows the approach of treating the members of an MNE [multinational enterprise] group as operating as separate entities rather than inseparable parts of a single unified business" and ample precedent in the application of the arm's-length standard to non-financial transactions.

This subtle modification has had a significant impact on how some tax authorities have evaluated certain related-party financial transactions. A borrower's credit quality is generally a key determinant of the interest rate at which the borrower can obtain funds in the financial markets. Hence, it is also generally a key determinant of the rate on a related-party loan. Most taxpayers have interpreted the arm's-length standard as requiring taxpayers to hypothesize foreign subsidiaries of multinationals as being completely independent of their parent and subsequently estimating their credit quality on a stand-alone basis. Stated differently, "one of the underlying assumptions of the arm's length principle is that the more extensive the functions/assets/risks of one party to the transaction, the greater its expected remuneration will be and vice versa". OECD (2013), *Addressing Base Erosion and Profit Shifting*, OECD Publishing.

Under this alternative view of independence, it is necessary to consider the possibility that a subsidiary that faces a period



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Some of the banking projects on which Robert has worked have involved income and expense allocation among branches for activities ranging from global trading to provision of ancillary and/or support services. His investment banking experience includes analysis of global trading of derivatives, merger and acquisition activity, loan syndication, and prime brokerage. In global trading transactions, Robert has helped to price the assumption of market risk, the assumption of credit risk, the performance of trading functions, and the provision of sales and/or marketing services. He has assisted insurance companies in pricing the transfer of risk among entities, and insurance brokerages in allocating income and expense from global placements. Robert has worked on a number of investment advisory projects, including the pricing of advisory functions, subadvisory functions, custody functions, and brokerage functions for both traditional and alternative investment managers.

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of financial distress may be rescued by its parent, even without any legal obligation to do so. Furthermore, some tax authorities maintain that because this perceived credit enhancement arises solely from group membership, the interest rate at which a parent lends to a related-party subsidiary needs to be adjusted downward accordingly. In other words,



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Bill also advises clients in the financial services sector, as an adviser to commercial and investment banks, asset managers, finance companies, and insurers.

Before beginning work in transfer pricing, Bill worked for 10 years in the financial services sector, including roles in equity investment management and interest rate derivative structuring and marketing. He also worked at the Federal Reserve, where he held a payment system policy role.

Education

- Master of Business Administration, Cornell University, Johnson School of Management
- Bachelor of Arts, Economics, The University of Chicago
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a parent lender may need to adjust the rate at which it lends to an overseas subsidiary downwards in light of potential market perception that the parent itself will prevent the subsidiary from not performing on a loan from a third party. Such an adjustment would appear to undermine the perception of the subsidiary as "independent," in its ordinary definition. It is also not consistent with how both taxpayers and tax authorities have applied transfer pricing principles to nonfinancial transactions, where the impact of a parent on the risk of a sub-

sidary (or the influence that this parent-subsidiary relationship might have on the return the subsidiary is required to generate based on its own functions, assets, and risks) is generally explicitly disregarded.

Transfer pricing guidance regarding affiliation

Limited guidance exists from tax authorities regarding the need to account for affiliation when evaluating related-party financial transactions. Two countries that have led the push to require taxpayers to adjust for affiliation are Canada and Australia. In Canada's *GE Capital Canada vs. the Queen* (Can. Tax Ct., 2006-1385(IT)G, 12/4/09, followed by the appeal, *The Queen v. General Electric Capital Canada Inc.*, 2010 FCA 344), the court ruled that it was appropriate to make adjustments for affiliation when evaluating the arm's-length nature of a credit guarantee provided to GE Capital Canada by its parent, GE Capital in the United States. However, in light of the facts in the case, the court concluded that the guarantee arrangement provided a benefit to the Canadian taxpayer and did not adjust the guarantee fees paid by GE Capital Canada.

The Australian Taxation Office has stated that it is necessary to account for the impact of affiliation when pricing related-party financial transactions, although it has provided this guidance in a nonbinding section of a taxation ruling, TR 2010/7, relegating its commentary to a brief footnote.

Attempting to adjust for the impact of affiliation

If one were to conclude that it is indeed appropriate to adjust for affiliation in a transfer pricing context, one would then be faced with the issue of how to make such an adjustment in a careful, replicable and consistent way that actually replicates market behaviour, and not merely one rating agency's broad guidance. Both Moody's Investors Service and Standard & Poor's have disseminated general guidance regarding how each firm broadly adjusts for the credit impact of group membership, but they have done so outside of a transfer pricing context. Several parties have attempted to develop a standardised approach to adjusting the credit quality of a subsidiary of a multinational for the potential impact of affiliation, but those attempts have generally tried to create structure around what is inherently a subjective and factually specific decision. Furthermore, even if a given credit ratings agency provides guidance regarding making adjustments for affiliation, it is still not clear whether and to what degree that guidance has actually been adopted by the financial markets, which provide the actual benchmark against which any potential adjustment should be applied. The pricing of debt can (and does) differ from what might be expected for transactions of a given credit rating.

It should also be noted that the impact of affiliation differs between financial and nonfinancial services firms. It also varies by country, by the respective credit quality of the parent and

its subsidiary (or subsidiaries) and by prevailing credit market conditions. These variations make it nearly impossible to develop a reliable structured approach for adjusting for affiliation.

Managing the ambiguity of existing guidance on affiliation

While a taxpayer might justifiably express scepticism that it is appropriate to account for affiliation in light of the arm's-length principle and existing OECD transfer pricing guidance, it might nevertheless make sense from a tax risk management perspective to consider the views of the relevant tax authorities and proactively support the taxpayer's position. At the same time, these same tax authorities may be less concerned about extensions of credit that fail to account for affiliation. Transactions that are material and/or are priced based on the premise that the credit quality of the borrower or the guaranteed entity is significantly lower than that of the broader group likely merit further scrutiny. At the same time, some tax authorities have started to consider whether parent companies located in their jurisdictions are being appropriately compensated for the assumption of credit risk, such as that incurred in providing credit guarantees. Hence, it is critical to have an understanding of how different tax authorities might perceive a specific financial transaction, given their stated policies, audit history and financial interests, and to proactively prepare transfer pricing documentation that memorialises the taxpayer's position.

BEPS and capital structure

The OECD's BEPS initiative raises questions regarding interest deductions claimed by taxpayers in a given jurisdiction. This facet of the OECD's work could have a meaningful impact on both multinational financial institutions and non-financial corporate taxpayers, given the importance of debt financing. In 2013 alone, corporate issuers (including both financial and nonfinancial borrowers) raised US\$3.2 trillion through the corporate debt markets, according to Standard & Poor's in its article "Credit Trends: More Than \$3.2 Trillion in Global Corporate Bonds Came to Market In 2013," January 8 2014. In addition, banks extended US\$4.2 trillion in syndicated loans globally to corporate borrowers, according to Thomson Reuters, *Global Syndicated Loans Review for 2013*.

Multinationals generally seek to allocate the cost of external debt financing among their branches and/or subsidiaries. However, if tax authorities in jurisdictions that receive allocations of externally raised debt seek to routinely characterise these allocations as attempts at harmful base erosion (whether through restrictive thin capitalisation limits, general anti-avoidance provisions, or other measures that may restrict otherwise arm's length interest deductions), the number of instances when members of a multinational group are not able

to fully deduct a portion of their external debt expense in at least one jurisdiction may increase significantly.

While taxpayers with transactions covered by a tax treaty may have recourse to the mutual agreement procedure to resolve capital structure and other transfer pricing disputes, those procedures are typically long and generally require only that the taxation authorities discuss a given issue – not that they actually achieve resolution. Given the size of many multinationals' balance sheets, tensions may naturally arise between those countries that are home to a significant number of multinational headquarters (or their funding hubs) and those that tend to host their subsidiaries.

Allocating the cost of liquidity premia

Allocating the cost of liquidity premia may raise similar issues to the allocation of external debt amounts. To reduce the possibility that a borrower cannot refinance its obligations as they become due (liquidity risk), both financial institutions and corporates generally raise funds with a variety of maturities, taking into account the maturity profile of forthcoming maturing debts and the firm's assets. In the wake of the financial crisis in 2008, the need for both financial and corporate borrowers to extend the maturity profile of their liabilities, and the cost of doing so, increased significantly. Borrowers with centralised funding models that raised funds on behalf of the broader group on a term basis, and on-lent those funds on a short-term basis incurred significant incremental costs in their funding centres. When the funding centres subsequently attempted to allocate those costs to the entities that arguably benefited from the presence of longer-term funding but paid only short-term rates (often through "liquidity fees"), some tax authorities balked at these incoming charges. To the extent that similar financial market conditions may reappear in the future, it may make sense to adjust the time to maturity on related-party loans (and their associated interest rates) to match the term structure of the borrower's local funding requirements.

Recharacterisation

The existing definition of the arm's-length standard refers to "arm's-length conditions" when pricing transactions between related parties. The OECD transfer pricing guidelines, in the context of intragroup funding, note that it may be necessary for a tax authority to recharacterise a loan transaction as equity if a subsidiary of a multinational is not adequately capitalised. Based on what the OECD has already announced about its BEPS initiative, OECD member tax authorities may seek to have expanded powers to recharacterise transactions they believe would not have occurred at arm's-length. Beyond potentially recharacterising a debt instrument as equity, tax authorities may question the validity of hedging agreements (for example, an interest rate swap or a cross-currency swap, which the OECD notes may provide a taxpayer with tax advantages by virtue of its domestic tax treatment).

Australia again appears to be at the forefront of increased powers of reconstruction. Its revised transfer pricing legislation, Subdivision 815-B, provides the Australian Commissioner of Taxation with the power to reconstruct cross-border related-party transactions, though supposedly only in extreme circumstances. Taxpayers may gain an understanding of what constitutes an “extreme” circumstance as such circumstances arise over time.

Closing observations

Although the OECD has indicated to taxpayers that it plans to implement measures designed to counteract perceived profit shifting through financial transactions, guidance has

not yet been introduced. The absence of specific guidance, along with the disparate approaches tax authorities have taken to applying existing guidance to financial transactions, has consequently increased the tax risk faced by many multinational firms. If the OECD affirms that the arm’s-length standard applies to financial transactions, it would be helpful to also clarify the definition of “independence” to enable taxpayers to price financial transactions on the same basis that they apply to other nonfinancial transactions. Regardless of how the OECD decides to proceed, it is unlikely that financial transactions will again become an area disregarded by taxation authorities; hence, taxpayers will need to structure and price intragroup transactions with care.

Some things in the world are changing Others are not

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