

Location specific advantages – case studies

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The second of three articles focusing on the transfer pricing challenges involved with the concept of “location savings”

This is the second of a series of three articles that illustrate the transfer pricing challenges involved in applying the concept of “location savings”, and extend the analytical process for that cost-related concept to other types of advantages that can arise in relation to specific locations.

The first article of this series, published in June 2011,¹ provided the analytical framework for the identification, quantification and apportionment of location rents between affiliates located in “high-cost” and “low-cost” jurisdictions. As discussed in this first article, the location savings concepts acquired a centre stage in the transfer pricing debate, due to the large foreign direct investments (FDIs) in the emerging economies, notably the BRICS.² This issue goes beyond the traditional relocation of manufacturing, as location rents can be identified as playing a role in decision making in the normal course of a MNE’s business (not only in a relocation situation) and can relate to distribution and service, as well as to manufacturing activities. Location rents should be quantified and apportioned in a way that will depend on the transfer pricing method or methods applied. Because this apportionment can rarely be done using market evidence, it necessitates the application of certain more advanced economic techniques.

The second article of the series applies the above concepts and framework in the context of manufacturing, services and distribution. With practical examples, the article will effectively assess in which circumstances location advantages may arise in the operations of a tax payer in various settings and how these advantages should be treated from a transfer pricing perspective.

The third – and last – article of this series will focus on China and provide specific insights relevant to this country, notably by discussing in which circumstances location advantages arise in China, and how

these should be treated from a transfer pricing perspective, as well as by providing some insight on the current views of the tax authorities (at a central and local level) on these issues.

As discussed in the first article, evaluation of profits attributable to the location specific advantages (LSAs) in the transfer pricing context can be achieved in a three-step process summarized below:

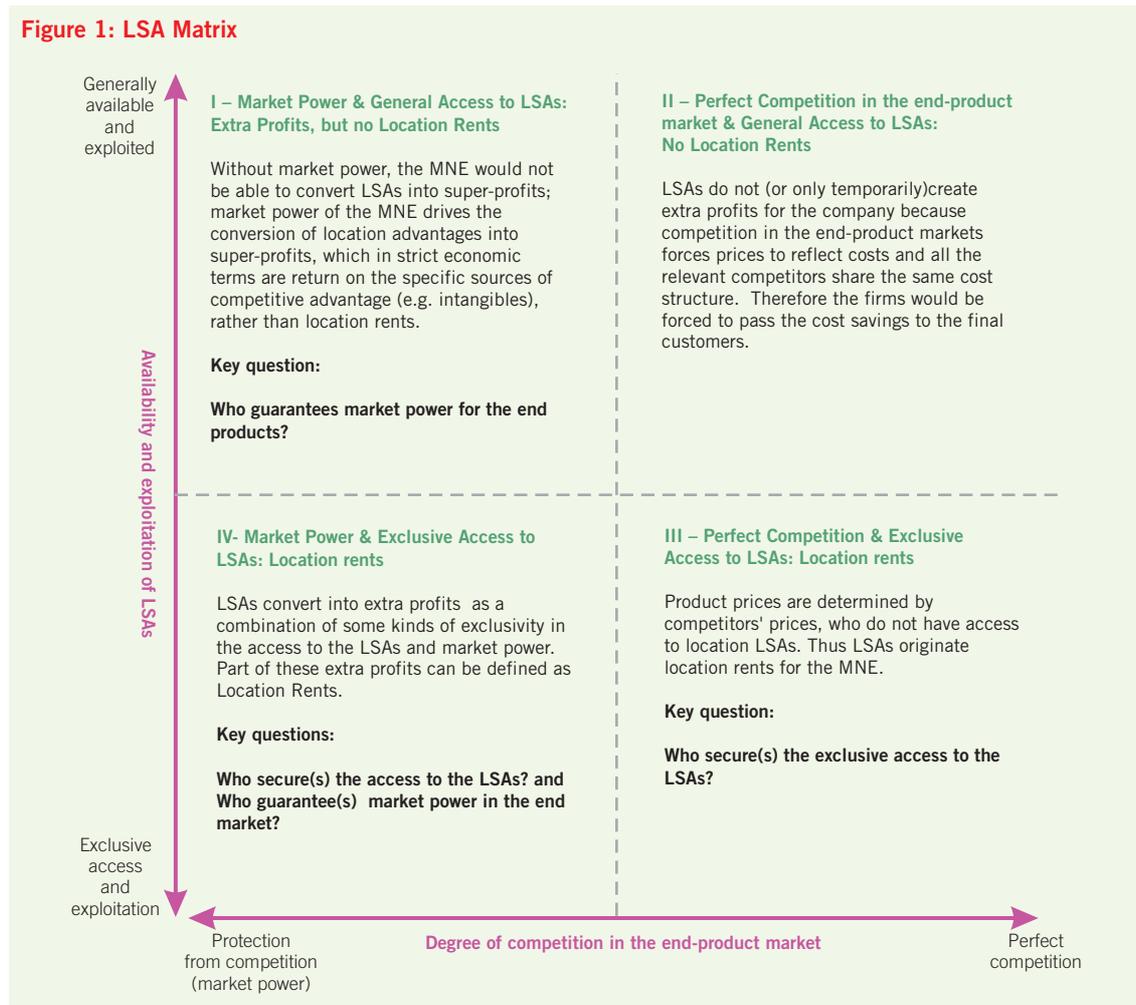
1. *Analyze the existence of the LSAs.* These have to be computed on a net basis by reference to the next best available alternative by taking into account both cost savings or additional revenues and additional costs incurred in the process of relocation or, more broadly, in comparison to the relevant alternative(s).
2. *Evaluate the location rents*, i.e., the ability of a company to convert the LSAs into economic profits. Location rents exist only if LSAs exist and market conditions allow the company to keep these LSAs rather than having to pass them to the customers. The necessary condition for the location rents to exist is an ability of the company in question to secure an exclusive or near-exclusive access to LSAs. The location rents can be further amplified if the company in question has an ability to control prices to its customers (i.e., market power), which translates into extra profits. Evaluation of the location rents calls for a thorough analysis of the relevant market conditions including the relative market power of buyers and sellers in the finished goods market, competitive conditions in the market where LSAs have been identified, and comparison of the value chains of the company in question and its competitors.
3. *Assess bargaining positions of and conclude on the attribution of location rents among the related parties concerned.* Since location rents exist due to an exclusive access to LSAs and may be amplified by the

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ability to control prices of the final products (i.e., market power), attribution of these rents between the “low-cost” affiliates and other affiliates in the value chain depends on the relative bargaining power of the parties and their contribution to securing access to the LSAs and to developing the intangibles that enable the exercise of market power.

The LSA matrix shown in Figure 1, discussed in depth in the first article, should serve as a guide for assessing bargaining positions and an arm’s length split of location rents. It should also serve as a guide to design arm’s length ex-ante price setting systems between related companies, in line with what third-parties would negotiate under similar “location rents” circumstances.

cial market since it takes advantage of price differences in the factors of production across countries. Compared to arbitration in the financial markets, LSAs are a phenomenon that emerges where markets can remain in disequilibrium for longer periods of time however, and so the profits from LSAs may accrue for a longer period since the resources such as labour or land are not easily tradable across countries. Also, realization of LSAs typically requires that some additional costs be incurred such as costs of relocation, additional logistics, quality control costs, etc. in the destination countries. The net LSAs are the amount of cost reduction less the amount of cost increase, and should be expected to be positive for companies that make a decision to relocate some of their



Below, we will discuss application of the above process using examples of different activities performed by the affiliates that benefit from location-specific factors, distinguished for manufacturing, services, and distribution.

I. Manufacturing

A. Background

Manufacturing-related LSAs converting into location rents generally emerge when companies transfer production or operational sites from high cost economies to economies with lower labour, land, and raw materials costs. It resembles arbitration profit in the finan-

functions.

As discussed in depth in the first series, the location savings concept has often been defined as (net) cost savings realised by an MNE typically as a result of relocating some of its operations from a “high cost” to a “low cost” location in order to obtain a competitive advantage because of price differences in the factors of production. The location savings concept, so far, has been applied mostly to manufacturing activities.

There were also many disputes between taxpayers and tax authorities on how to treat profit from LSAs associated with manufacturing activities. Examples include relocations of plants to Puerto Rico or Ireland by U.S. pharmaceutical companies, and a further number of U.S. litigation cases, such as *Bausch &*

Lomb, Inc. v. Comr., 92 T.C. 525, 581 (1989), *affd.*, 933F.2d 1084 (2d Cir. 1991); *Compaq Computer Corp. v. Comr.*, T.C. Memo No. 1999-220 (1999) *Eli Lilly & Co. v. U.S.*, 178 Ct. Cl. 666, 372 F.2d 990, 997 (1967); and *Sundstrand Corp. v. Comr.*, 96 T.C. 226, 352-353 (1991).

B. Existence and quantification of LSAs

Calculating additional profit from LSAs (i.e., location rents) requires careful consideration of the economic substance. Often, companies relocating their manufacturing functions do not merely pursue LSAs, but also seek higher productivity with the new investment. Thus, establishment of a new production plant overseas may be coupled with installation of new equipment and adoption of new technologies and new manufacturing processes. This means that the savings arising from lower input cost must be distinguished from those that are due to greater efficiency.

To quantify LSAs and related additional profits (if any), simply computing the cost difference before and after overseas operations can be misleading. Detailed analyses of each element related to LSAs are required.

Total costs of production can be broadly classified into variable and fixed costs. The former include labour costs, costs of raw materials, and other costs that depend on production volume. Labour costs and costs of raw materials are generally expected to be lower in the “low-cost” countries. Fixed costs are affected by efficient use of equipment, facilities, and non-manufacturing resources. The fixed costs in “low-cost” locations may be higher or lower than in “high-cost” locations.

In computing the amount of labour cost savings, in addition to an adjustment for the differences in production volume, there also must be an adjustment for differences in labour productivity. Although labour costs in high-cost countries are higher, workers in high-cost countries may have higher productivity. Therefore, it is necessary to compute the difference in labour cost per unit time, followed by an adjustment for difference in labour productivity to derive the net labour cost difference in real terms. Specifically, the following analytical steps might be helpful:

1. select a pre-transfer manufacturing site in the home country as a comparable
2. calculate the labour cost per unit of time for both the tested party (post-transfer plant) and the comparable
3. calculate the time needed for a worker to produce one unit of product for both the tested party and the comparable
4. calculate the labour cost to produce one unit of product (which is the product of labour cost per unit of time and labour hours) for both the tested party and the comparable
5. calculate the labour cost difference by multiplying the result of step 4 with the production volume of the tested party.

In addition to the above comparison of labour cost structure, other elements of LSAs, such as tax benefits of the country in operation, as well as the effect of cost reduction based on differences in capital productivity should be analyzed. For example, one might find that 80 percent of the quantifiable cost difference is ex-

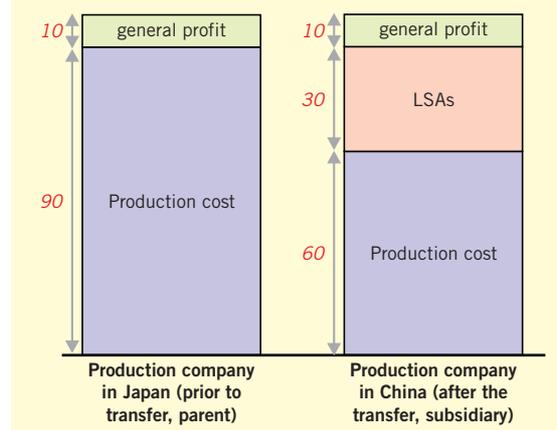
plained by the LSAs and the remaining 20 percent is attributable to other factors, such as enhanced capital productivity and efforts in improving efficiency.

C. Apportioning LSAs under different transfer pricing methods

1. Comparable Uncontrolled Price / Comparable Uncontrolled Transactions (“CUP”)

We believe that, under certain circumstances, CUP is an appropriate method for testing the attribution of profit from LSAs. Consider, for example, a Japanese manufacturer of electrical appliances, Company A, which previously manufactured products in Japan but shifted production to China. From Figure 2, the unit production cost in Japan is 90 and the product is sold to distributors at 100, making the profit of 10. By moving to China by establishing its manufacturing subsidiary, Company A is assumed to be able to reduce the production cost to 60 with the lower cost local labour force. In this case, the cost difference of 30 (90 less 60) is the LSAs, all else equal. Therefore, Company A’s profit of 40 includes profit from LSAs equal to 30. Which company (the Japan parent or the China subsidiary) is entitled to the additional profit? Or can they both claim part of it?

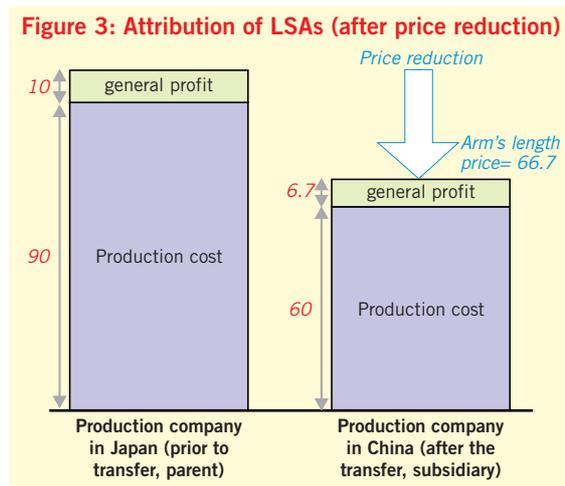
Figure 2: Attribution of LSAs (without price reduction)



The key is the market price or arm’s length price of the product. Assume first that the competitors of Company A have kept their factories in Japan and the supply curve did not change, except for the part of Company A. In this scenario, the market price (sales price for manufacturers = purchase price for distributors) of a product in Japan is unchanged at 100 even after Company A starts production in China. Next, assume that there is an independent company in China (Company B) that can supply the same product and has the same cost structure as that of Company A. If Company B, in fact, supplies the product, it will gain the same profit of 40 as Company A. Sooner or later, many such companies will emerge and enter the market, shifting down the market supply curve. However, during the transition period, there will only be a few low-cost suppliers located in China allowing them to exercise their bargaining power to convert LSAs into rent. According to the LSA Matrix discussed in the first article and replicated above in Figure 1, these

facts would be classified in quadrant III, where the subsidiary can claim all or most of the location rents if this subsidiary has secured the exclusive access to LSAs.

In a separate case in which many local manufacturers such as Company B enter the market, or Company A's Japanese competitors follow suit and relocate to China, the supply curve in the market will shift downward. Although production costs will be reduced, the arm's length price in the market will also decline. If the sales price for manufacturers (which is the same as the purchase price for distributors) is reduced to 66.7 with production cost unchanged at 60, Company A's profit declines to 6.7, which provides the same level of profitability (return on sales) as was the case prior to Company A's transfer to China (see Figure 3).



In this case, the additional profits for the subsidiary from LSAs have been transferred to the market through the reduction in the price. Then, an arm's length distributor enjoys the additional profits from the declining purchase price but only to the extent the sales price in Japanese retail market does not decline as much as its purchase price from suppliers in China. We may be able to say that the additional profits will accrue to the parent if we assume that the parent has a distribution function in such a scenario.

Another situation where the parent can claim the LSA profits is the existence of entry barriers in the manufacturing market in the low-cost country. For example, if special knowhow is required to manufacture the product in China, the market may stay less competitive than in the above example. The additional profit may go to the parent if it provides the necessary knowhow to the subsidiary located in China. However, this is the remuneration of intangibles that should be paid as a form of royalty (or through pricing of goods or services), rather than the additional profit from LSAs as it is sometimes being argued.

2. Transactional Net Margin Method / Comparable Profits Method ("TNMM")

Application of TNMM may provide a useful indication, particularly in the absence of good CUPs, for the LSA apportionment to the "low-cost" affiliates when comparable independent manufacturers located in the same geographical area can be identified (or the geographical differences between the comparables

and the tested party can be reliably adjusted for). It is noted, however, that finding a good pool of comparable companies is challenging since in theory (and in many practical situations) the LSAs are a short-term phenomenon where a market is in transition and in general there are only a few suppliers in the market.

If we use the same example as in the CUP section, we need to find a set of comparable companies like Company B that supply the same or similar products to the Company A's market. Assume that the median return on sales for unrelated Chinese comparables is 40 percent as compared to 10 percent for Company A's competitors in Japan. This fact indicates that comparable Chinese companies earn location rents consistent with LSAs. Since, as shown in Figure 2, the Chinese subsidiary of Company A earned the same return on sales as the comparables' median, i.e. 40 percent, the analysis suggests that the subsidiary is entitled to keep the LSA rent.

Assume next that there were new entries of local companies and Company A's Japanese competitors also relocated their manufacturing subsidiaries to China, which caused a downward shift of the market supply curve. This resulted in the market price decline driving down the comparables' median return on sales to 10 percent as indicated in Figure 3. In this scenario, the LSA rent has disappeared and there is no reason to conclude that the Chinese subsidiary of Company A can earn any LSA rent.

TNMM can also be used to determine whether there are any residual profits in the intercompany value chains which include the "low-cost" affiliates. If the residual profits exist, the next step would be to estimate what part should be allocated to intangibles other than LSAs. For instance, if in the above example the comparables' median return on sales is 30 percent, while the Company A's subsidiary return on sales is 40 percent, the subsidiary's return of 30 percent should be attributable to the LSA rent while the residual of 10 percent may be due to the intangibles provided to this subsidiary by its Japanese parent. As mentioned above, selection of proper comparables plays a key role in application of TNMM to calculating the LSAs.

II. Services

A. Background

The pronounced trend of establishing service affiliates in low-cost locations by MNEs from developed countries, also known as "captive offshoring", can be traced to the mid-1990s, as rapid evolution of telecommunication and information technologies enabled portability of information-centred types of services. Initially, activities of most of such service affiliates were limited to low-value-adding services such as data entry or call centres. More recently, MNEs have begun to locate in low-cost countries affiliates that perform higher value-adding services such as R&D, professional services, and complete business processes.

A review of the 25 leading destinations for captive offshoring puts India at the top of the list, followed by China, Malaysia, the Czech Republic, and Singapore on a worldwide basis, with Brazil leading in Latin

America and South Africa the leader in the African continent. European MNEs have followed a similar trend with approximately one-third of all offshoring projects located in India and another 22 percent in Eastern European countries.³

The increasing role of emerging markets in global R&D is reflected by the fact that during the period between 1994 and 2006, the share of the overseas R&D investments by US MNEs in the Asia outside of Japan more than doubled, from 5.4 percent to 13.5 percent. This increase was driven primarily by R&D spending of US-owned affiliates in China, Singapore, and South Korea. In 2006, R&D performed by foreign affiliates of US parent companies located outside of the developed countries accounted for 18 percent of total offshored R&D. While most of this R&D volume was concentrated in the computer and electronic products industry, professional, scientific, and technical services performed by affiliates of US MNEs in India accounted for 35 percent of all R&D spending by U.S. MNEs in that country.⁴

The trend of affiliates with LSAs to perform evermore sophisticated services is expected to continue as R&D expenditures of such affiliates have been increasing at an average annual rate of 5.0 percent since 1994. This trend is expected to persist due to competitive pressures and economic incentives to utilize gains from specialization.⁵

B. Existence and quantification of LSAs

Given the intrinsically labour-intensive nature of the services industry, LSAs may potentially be even larger in the service industry than in the manufacturing industry. As for the calculation of LSAs in the manufacturing industry, the labour cost savings in services should be adjusted for differences in labour productivity between “high-cost” and “low-cost” locations.

When applied to services, the appropriate productivity measurement depends on the nature of the services in question. For example, for services that can be measured in terms of output produced per unit of time (i.e., number of calls completed) metrics similar to the ones used to measure productivity of the manufacturing labour can be applied. For services that are best measured by their outcomes (e.g., software writing or pharmaceutical research) other appropriate performance indicators should be used.

C. Apportioning LSAs under different transfer pricing methods

1. TNMM

In their transfer pricing policies, MNEs commonly take the view that service affiliates with location-specific advantages (“LSAs”) should be reimbursed as routine service providers, often via a mark-up on service costs derived from benchmarking studies of independent service comparables.

A significant proportion of MNE affiliates established in jurisdictions with location advantages belong to the category of non-entrepreneurial service providers, thus leading naturally towards TNMM ap-

plication for benchmarking and testing of their profitability, and with mark-up on costs as the Profit Level Indicator.

Non-entrepreneurial services can be defined as those that do not involve significant upfront investments with uncertain future payback. They can range from low-skilled to medium-skilled services which include data entry or call centres along with more complex service functions that require some specialized training such as financial and accounting services, standardized programming work, routine data analysis and processing or back-office services such as ticketing and billing.

For example, IT companies establishing call centres in India have affiliates engaging in business process outsourcing (BPO) of non-entrepreneurial services. The IT-BPO industry in India “has been on a constant high growth path and the revenues have grown over 15 times from FY1998 to FY2009”.⁶

Today, there are over 750 captive affiliates of MNEs in India that employ almost 400,000 people. India also accounted for 33 percent of the announced new MNE affiliates worldwide in Q1 2010, which translates into 11 affiliates with planned investments of over US\$800 million. The MNE centres saw an explosive growth in revenue from the total of US\$3 billion in FY2003 to US\$11.1 billion in FY2010, which has increased the contribution to IT-BPO industry’s export revenue to 22 percent.⁷

By using typical contract service agreements, MNEs often assume that the TNMM provides a fair apportionment of profits from the LSAs. Indeed, in case independent comparable companies, operating in the LSA countries in similar economic circumstances as the LSA subsidiary concerned, would be available, the level of (operating) profit that such companies achieve might be used to derive an indication of the share of location rents that should be allocated to the low cost countries involved. A typical difficulty is that in emerging economies, where the subject arises, the number of comparables is limited.

As financial data for comparable independent service providers located in the same geographical areas as the MNE affiliates are often lacking, the reimbursement rates for service affiliates with LSAs are often set using comparables from other geographical regions. Thus, income of a controlled service provider with LSAs frequently ends up benchmarked against the income of companies from an entirely different geographical region. In the view of the authors, even after making adjustments for differences in the cost of capital between the countries, this approach may not provide a reasonable estimation of the fair apportionment of location rents resulting from LSAs.

2. CUP

By applying the typical cost plus contract service setups, MNEs also assume that Comparable Uncontrolled Prices are not available to evaluate the price level of services from the low-cost country to the high-cost country. The authors consider that despite the inherent difficulties of this method, it is relevant to evaluate whether prices for the intercompany services can be established using the market evidence provided by either internal transactions (the group out-

sourcing services provided by unrelated service providers in low-cost countries) or external transactions (service transactions among third-parties).⁸

One other option inspired by the CUP method would consist of establishing the compensation of the “low-cost” affiliate by reference to the compensation of other “high-cost” intra-group providers of comparable services, assuming that the compensation system of “high-cost” intercompany service providers is consistent with the arm’s length outcome. The compensation of the “high-cost” service providers could be used to estimate the LSAs, and, in the next step, a proper apportionment of these LSAs can be made. Consider as an example an MNE that sources engineering services internally from several different affiliates worldwide. Assume that the average (total) cost of the engineering labour at the “high-cost” affiliates is US\$50 per hour. If the average labour cost of an engineer in a low-cost location is US\$20 per hour, the estimated LSA, in the absence of any necessary adjustments, is US\$30 per hour of engineering labour. This total amount of LSA should be allocated between the “low-cost” affiliate and the other affiliate(s) that play a role in realization of these LSAs. As expressed in the LSA Matrix, the appropriate arm’s length allocation depends on whether other market participants (i.e., MNEs) can access similar location advantages in the same country. If the location advantages are easily accessible to the competitors, the “low-cost” affiliate would not be able to claim any portion of the LSA. On the other hand, if the “low-cost” affiliate of the MNE in question has managed to secure highly restrictive access to the LSA, for example, through an exclusive business licence, its unique relationships with the government or its unique access to the local talent pool, then, at arm’s length, this “low-cost” affiliate would be able to negotiate the compensation for its services in line with the average service cost of the MNE in question. In the latter case, the role of the “low-cost” affiliate would go substantially beyond the role of the routine service provider.

The next discussion relates to situations where the service provider arguably can be considered an entrepreneurial service provider, justifying the use of profit split methods.

3. Profit split

Entrepreneurial services can be defined as activities that involve upfront investments for which a return is expected to be earned in the future. They are the most skill-intensive of offshored services with examples including R&D, design services, architectural drawings, new software development, animation, medical testing or analysis, and technology systems design.⁹ Typically high levels of specialization and strong educational institutions are necessary for the offshore location to attract and support highly qualified personnel.

MNEs are setting up affiliates that provide entrepreneurial services at a growing rate, with more than 980 foreign R&D centres already established in China by 2006.¹⁰ The New Zealand-China Trade Association described Shanghai as a “hub for R&D, including R&D for the automotive, chemical, electronics, pharmaceutical and machinery manufacturing industries, and

others”.¹¹ Some of the research centres are devoted to basic research as opposed to product development, thus contributing knowledge to MNEs’ global operations. Between 1995 and 2001, the number of R&D centres in China increased from 19 to 379. Approximately one-third of these centres are devoted to fundamental research, and the rest to development.¹²

A number of major MNEs in the telecommunications industry have established R&D facilities in China as early as the mid-1990s. However, in the last decade the number of such R&D affiliates has increased tremendously, whose services include the development of communications software tailored for the local Chinese market as well as designed for global export.¹³ Similarly, pharmaceutical MNEs have been expanding their R&D centres to Chinese locations, not only benefiting from a low cost base and a rise in scientific talent but also the rapidly growing Chinese pharmaceutical market.¹⁴ China is maintaining its low-cost appeal as, “the government has been encouraging the entry of foreign capital R&D through policies such as offering tax exemptions on equipment imports, providing government R&D subsidies and strengthening the protection and enforcement of intellectual property rights”.¹⁵

Because a product of entrepreneurial services has a profit potential unique to that product, remuneration of intercompany entrepreneurial services often cannot be established by reference to comparables.¹⁶ In situations when the profits of affiliates with entrepreneurial activities cannot be reliably benchmarked, the focus should turn to examining the scope of the benefits of these activities.

Entrepreneurial services of some affiliates with LSAs may be directed primarily towards the markets into which these affiliates are selling. Examples include products developed specifically for certain geographical markets, locally-developed trademarks for products sold within a specific geographic region, etc. When entrepreneurial service affiliates develop locally-oriented products without receiving substantial assistance from other related parties, profits earned by these affiliates would be consistent with the arm’s length outcome.¹⁷

In other circumstances, entrepreneurial services by affiliates with LSAs may contribute to profits earned by other entrepreneurial MNE affiliates. Examples of such services include development of portions of the code for software sold globally, performing some of the tasks involved in discovery and testing of new pharmaceuticals, etc. In these cases, profit splits may be the most appropriate way to establish remuneration of the multiple entrepreneurial entities presented in the value chain. If the relative contributions of the entrepreneurial entities under the profit split method are assessed using capitalized costs of intangibles development, the presence of entities with LSAs poses a special analytical challenge. Because location advantages typically arise due to the lower cost of local inputs, such as the labour compensation, capitalizing unadjusted costs of the intangible-development activities for affiliates with LSAs may significantly understate the entrepreneurial contribution of such affiliates. A more accurate assessment of the contribution of an affiliate with LSAs would involve an adjustment of the intangible-development costs of such an

affiliate to the costs of the same activities in “high-cost” intangible-developing locations, including if necessary, adjustments for differences in productivity. In this analysis, it is necessary to isolate profits arising from LSA-intangibles from profits arising from other intangibles (such as technology-related intangibles).

III. Distribution

A. Background

In order to illustrate the discussion about LSAs in a distribution context, consider the following two distinct situations:

Case A : a high-end luxury retailer enters the market in a Middle-Eastern country; in order to do so, the group sets up a joint-venture with a local retailer. The group supplies the JV with the products and the brand licence, under which the JV is allowed to distribute the products. The local partner, a successful local retailer, provides the JV the distribution rights in the country, including the local expertise, relationships with landlords to secure retail spots, and local connections (i.e., market access intangibles). The question is then whether the local JV benefits from LSAs, and if so, how it should be split between the JV and the brand/concept owner at arm’s length.

Case B : a global retailer has operations in 10 countries; operations in all the countries are similar in nature and the local subsidiaries are equipped in the exact same way. The recipe for success is provided by the headquarters of the group which secures and determines all the factors that may have an influence on the success of the operations locally. One of the distribution affiliates has a significant cost advantage due to lower labour costs in the country of its location. The question is then whether the group benefits from LSAs (converted into location rents) in this market; and if so, to which entity (i.e., the local subsidiary or the parent company) should the LSAs be assigned to, or if both can claim part.

For these two cases, we will review first whether LSAs exist and, if so, how the LSAs and location rents can be quantified; we will then review economic methods for apportioning these LSAs.

B. Existence and quantification of LSAs

LSAs may exist in both of the above-described situations.

In Case A, regulatory barriers to entry restrict the number of high-end luxury retailers in this market inducing an artificial scarcity and leading to excess profits for incumbents. Under the JV structure, the brand owner expects to sell more products and/or charge higher prices than it would operating its own direct subsidiary (if allowed).

The underlying objective in analyzing the LSAs is to assess whether the JV actually sells more and/or charges higher prices than an average subsidiary of the same brand owner, resulting in a higher profitabil-

ity in this market. The process below can be followed to evaluate the LSAs quantitatively:

1. Select the reference / benchmark group of subsidiaries. Various options are available here, e.g., regional average (pool of countries in the region), global average, etc.
2. Calculate relevant key performance indicators (KPIs) such as unit price by product category, volume growth, sourcing costs, gross margins, operating expenses performance for both the tested party (in the Middle-East country) and the benchmark group
3. Quantify any above-average performance of the tested party compared to the benchmark using the KPI analysis. Above-average performances should be offset by below-average performances, if any
4. Estimate whether the above-average KPIs (such as the price premium) lead to super-profits for the tested-party (i.e., the JV).¹⁸

Let’s assume that application of this process in case A demonstrates that the combination of exclusive market access and a globally recognized high-end brand gives the JV the ability to charge a price premium of 30 percent (compared to average global prices of the group’s products), and, in addition the JV benefits from a cost advantage (notably labour cost of shop staff) of 10 percent of sales. This confirms the existence of location rents and may place the JV among the most profitable affiliates.

In Case B, the macro-economic environment in a specific country has an impact on the cost structure of a specific subsidiary. This subsidiary which is functionally equipped in the same way as the other subsidiaries of the group, benefits from a cost advantage of operating in this country. The process described above can be applied in order to identify and quantify the LSAs. Such an analysis should take into account any offsets to cost savings or dis-savings, such as greater than typical price discounts (due to the lower buying power in this market).

Let’s assume that application of the above process demonstrates that operating expenses amount to 30 percent of sales for an average affiliate, while the affiliate in the low-cost country has operating expenses of 10 percent of sales. If the group’s intangibles are highly valuable, affiliates operate in a consistent manner selling the same products worldwide, and all affiliates use the same pricing structure with no special discounts in low-cost countries, then the low-cost affiliate generates LSAs.

If in both cases A and B the LSAs exist and if these LSAs can be converted into location rents; the next question to answer is the attribution of the location rents between the parent company and the local low-cost affiliate.

C. Apportioning LSAs under different transfer pricing methods

1. CUP

One way to quantify the amount of location rents that should be attributable to the local affiliate consists of searching for comparable uncontrolled transactions. In case of intra-group distribution of products, it is evident that the external CUP method (i.e., searching

for similar agreements concluded between unrelated parties) would not work because the differences between the intangibles supporting these transactions will likely be impossible to adjust for. However, if the parent company has entered into distribution agreements with unrelated parties, these agreements could potentially provide some initial indication of inter-company compensation. In order to be comparable and provide a sufficiently reliable assessment of the location rent apportionment, the third-party agreements would have to be concluded with companies operating in countries with similar macro-economic environment (similar barriers to entry to foreign retailers / same restrictions in Case A; same labour cost structure in Case B).

2. TNMM

Another way to quantify the amount of location rents attributable to the local affiliate is by applying TNMM. This approach can be applied when the distribution activities do not involve the development and maintenance of high-value intangibles. In case appropriate comparable companies can be identified, their profitability (the operating margin, for instance) would reflect the arm's length "location rents" for the specific country. This approach may work only to the extent that sufficiently reliable comparables with financial data can be found in the market concerned.

In Case A, as the JV is operating in the Middle-East, in an industry involving severe regulatory restrictions, with only few local competitors, it is likely that the TNMM will not provide reliable results. In addition, in the context of this case study, following the LSA matrix, as described in the first article of the series, it is presumable that the location rents would be split at arm's length between the JV and the brand's owner, notably if the JV, through its local partner, was involved in establishing and maintaining relationship with the government in order for its products to be commercialized in this country, as well as ensuring the access to this (otherwise inaccessible) market. This arm's length split of location rents cannot be comprehended by a typical TNMM analysis.

If the facts of the Case B indicate that the LSAs (i.e., labour cost advantages) are available to any entrant, and that the success (or failure) of the business model are primarily due to the factors controlled by the parent company and not the local subsidiary, then, at arm's length, the bargaining power of the LSA subsidiary would be relatively low. At arm's length, the LSA subsidiary would presumably not retain the benefits of the LSAs (as shown in the LSA matrix) and its profits would be in line with that of a routine distributor in the same market. Following the figures provided in the above example, the local low-cost subsidiary would not be entitled to the cost advantage of 20 percent of sales (i.e., the differential between the average and the local operating cost intensities). Thus, given that reliable comparables from the same market exist, TNMM can be used in the Case B.

3. Profit split

Under the profit split method, contribution analysis can be used in order to assess the split of location rents. Assuming that the amount of location rents is

known (from applying the quantification process described above), the analysis takes the form of a typical contribution analysis where the contribution of each party in relation to location rents related profits is assessed.¹⁹ The starting point for the contribution analysis is a good understanding of the market and of the nature of the relationship and bargaining power of the parties.

Following the assumptions of Case A,²⁰ the contribution analysis should reflect that:

- On the one hand, the local retailer contributes to securing access to this (otherwise inaccessible) market, for example:
 - local network to overcome regulatory barriers to obtain a business licence for luxury retail
 - access to and relationship with landlords to secure best retail spots
 - management of regulatory barriers and constraints.
- On the other hand, the brand-owner contributes the following:
 - recognized global brand
 - high-quality products
 - business know-how.

The respective contribution of the parties can be then quantified using various techniques, such as capitalizing the costs incurred by the JV and the group to create and maintain their respective intangibles (the "market access" intangibles for the JV, the "brand / marketing" intangible for the group). Other methods can also be employed for the purpose of quantification such as bargaining theory, notably Shapley Value²¹. The Shapley Value can be a powerful tool in the context of apportioning location rents as it attempts to describe a "fair" way to divide the gains from co-operation, and therewith forms a valuable proxy for establishing what constitutes arm's length in the circumstances at hand.

Following the figures provided for the Case A in the example above, assuming location rents in the range of 10 percent to 40 percent of sales (the cost advantage amounting to 10 percent; the price advantage equaling a premium of 30 percent over global average prices), this would mean that at arm's length the parties would split the [10 percent; 40 percent] location rents depending on their respective bargaining power. If, for example, the parties have equal bargaining power, the JV could retain 50 percent of the location rents, i.e., [five percent; 20 percent] of sales of location rents.

IV. Conclusion

The above case studies illustrate that the LSA paradigm is relevant to a broad range of intercompany transactions. With the wide application of the TNMM worldwide, both MNEs and tax administrations have assumed that that local comparables data would indirectly lead to a fair split of any location rents arising from operations in a given country. This might indeed be true, notably in cases where reliable local comparables exist and where location rents cannot be claimed by the local affiliates. A typical example is the situation where LSAs are widely available to any entrant in a market and the local affiliate is equipped in

the same way as any other entity in the group, with no specific features designed to address characteristics of the local market.

There are also cases, however, where the lack of local comparables or some characteristics of the local market would lead to a more nuanced application of the transfer pricing methods and an apportionment of location rents in line with the contribution of the parties in relation to this LSA intangible.

With the wide proliferation of value chains encompassing the BRICS countries (which not only provide location cost advantages but also serve as potentially very large markets), the discussion about the apportionment of location rents between taxpayers and MNEs will surely increase over time. A systematic process for LSAs apportionment that begins with an understanding of how the relevant markets work and what is arm's length, supported by rigorous economic analyses, should serve as a foundation for discussions between tax authorities and taxpayers.

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NOTES

¹ *Transfer Pricing International Journal*, Vol.12, No.6, June 2011.

² BRICS: Brazil, Russia, India, China and South Africa.

³ UNCTAD, World Investment Report 2004. *The Shift Towards Services*, Geneva: United Nations (2004). Chapter IV, p. 159, www.unctad.org/en/docs/wir2004_en.pdf

⁴ National Science Board 2010. "Science and Engineering Indicators 2010". Chapter 4. Arlington, VA: National Science Foundation. www.nsf.gov/statistics/seind10/c4/c4s6.htm

⁵ UNCTAD, World Investment Report 2004. *The Shift Towards Services*, Geneva: United Nations (2004), Chapter IV. www.unctad.org/en/docs/wir2004_en.pdf.

⁶ NASSCOM, *Impact of IT-BPO Industry in India: A Decade in Review*, New Delhi (2010). www.nasscom.in/upload/68924/Impact_Study_2010_Exec_Summary.pdf

⁷ Ibid.

⁸ In labour-intensive service industry, hourly rates for services can provide a useful reference point of market prices. In our experience, hourly rates for various services or positions may be available in agreements filed by the U.S.-listed companies as part of the required SEC filings. The downside of this approach is that such agreements rarely involve parties located in "low-cost" countries.

⁹ UNCTAD, World Investment Report 2004. *The Shift Towards Services*, Geneva: United Nations (2004). www.unctad.org/en/docs/wir2004_en.pdf

¹⁰ Tsinghua University, *Is Multinational R&D heading East-the Case of China*. (2007). www.demos.co.uk/files/File/atlas_LanXue.pdf

¹¹ NZCTA, *Brain Power: China as a Base for R&D*. Feb 2011. www.nzcta.co.nz/chinanow-strategy/1431/brain-power-china-as-a-base-for-randd/

¹² Hong Kong University, *Managing Global R&D in China*. www.bm.ust.hk/mgmt/staff/papers/JT/TASm17p317_Managing%20global.pdf

¹³ Ibid.

¹⁴ Medcof & Chatooroon, McMaster University, *Pharmaceutical R&D in China by Western MNCs* (2006). www.iamot.org/conference/index.php/ocs/10/paper/viewFile/1362/610

¹⁵ NZCTA, *Brain Power: China as a Base for R&D*. Feb 2011. www.nzcta.co.nz/chinanow-strategy/1431/brain-power-china-as-a-base-for-randd/

¹⁶ The circumstances when an arm's length evidence can be used to establish compensation for a product of entrepreneurial services are when a product transferred in an arm's length transaction has a profit potential similar to the product transferred in a controlled transaction and terms of both the arm's length and controlled transactions are comparable.

¹⁷ If these entrepreneurial affiliates utilize routine contributions of related parties before selling the product to unrelated parties (e.g., manufacturing or distribution), the arm's length profits of these affiliates would be computed after subtracting the returns on routine functions.

¹⁸ To estimate the impact of price premium on profits of the company in general and for an affiliate in the specific market, econometric techniques can be used.

¹⁹ See Fris P., Gonnet S., "Contribution analyses under the profit split method", *International Tax Review*, Intellectual Property, 6th Edition, Tax reference library No 38, 2007-2008

²⁰ The profit split method cannot be applied in the Case B because of the lack of intangibles at the low-cost affiliate

²¹ Gonnet S., Gottschling B., Voegelé A., "Transfer Prices Determined by Game Theory: Underlyings", BNAI, *Transfer Pricing International Journal*, Vol.9, No.10, October 2008.