

Transfer pricing of intellectual property in the automotive industry

A focus on India





Contents



The heart of the matter

As international business relationships grow more complex, accounting accurately for the transfer costs of intellectual property (IP) and other intangible assets will pose a vexing but vital challenge both for multinational corporations and the taxing authorities that oversee them.

Consider the global automobile manufacturing industry, where India, China, and other countries in the Asia Pacific region have emerged both as manufacturing centres and massive markets. Industry analysts expect 95% of near-term growth in the industry will occur among price-sensitive consumers in emerging markets, much of it in Asia Pacific countries. Although, the recent global downturn has led to a slow down in the growth rates in the Asia Pacific countries; however, the growth in these countries is still estimated to be relatively higher compared to the growth rates in other developed economies.

As the industry grows in the region, original equipment manufacturers (OEMs) will continue to benefit from manufacturing vehicles locally, both for cost reasons and for the branding benefits of proximity to these emerging markets.

Some of these local manufacturers will simply build vehicles using intellectual property and process know-how owned and licensed by their parent OEMs in foreign countries. But others will add value through their own research and development efforts, local marketing strength, operational efficiency, and other intangibles.

Automotive players, who do not have manufacturing operations in the Asia Pacific region, have set up distribution operations there with the aim of increasing sales. Such distributors typically import and resell final products within the region or country.

The cross-border transfer prices of intangibles, particularly IP, have become a regulatory priority for tax authorities in the host country. They worry that multinationals will set transfer prices that will minimise tax obligations.

This has led to increasingly focused transfer pricing regulations and enforcement, making transfer pricing a major tax compliance issue for multinational companies.

This PricewaterhouseCoopers report will focus on several different multinational business relationships within the Asian automotive industry. It builds on an earlier piece, "Intellectual Property in the Automotive Industry: Transfer Pricing Aspects." That paper is available for download from www.pwc.com/tppublications

In the following pages, we will examine some of transfer pricing models employed to account for the ownership and value of the IP utilised in the production of vehicles. In some cases, that IP is passed from foreign parent to local subsidiary. In others, some IP may be created locally as the operations of the local manufacturers become more efficient and sophisticated.

These relationships and models create both opportunities and pitfalls for parent companies, which will need to carefully consider the tax implications of their supply chain relationships.

Failure to effectively manage these relationships, intangible IP values, and transfer price models could leave global OEMs in dispute with local country taxing authorities. The organisations that manage these factors well will benefit both from operational presence in the burgeoning markets and from an efficient transfer pricing model for IP. Given the current global slowdown, new transfer pricing models, discussed later in this paper, could also be utilised to overcome local profit accumulation in Asia Pacific countries.



An in-depth discussion

Categories of intangibles and intellectual property in the Asia Pacific automotive market

To survive intense global competition, OEMs must create and leverage intangible assets. The consumer constantly demands better styling, safety, and comfort from vehicles and companies must continually develop new products, processes, and technologies to meet these consumer needs. Recent consumer demand for fuel-efficient, cost-effective, and environmentally friendly cars has sparked even more extensive research and development (R&D) efforts.

At the same time, many companies have moved key functions to emerging countries to take advantage of low-cost manufacturing. Beyond immediate production cost savings, those companies are also taking advantage of the increasing availability of inexpensive yet skilled R&D resources and the proximity to huge markets.


This may lead to considerable value being added by associates, subsidiaries, and joint venture partners in “low-cost countries”. Indeed, this is already happening in the Asia Pacific region, resulting in the creation of valuable intangibles.

Because most vehicle types or components emerge from extensive R&D, technology-based IP is a key determinant of success in the automotive industry. But there are other important types of intangible assets, such as the **core product intangibles** (e.g. concept engineering, product engineering, R&D, innovation, product testing, and validation etc), **process intangibles** (e.g. know-how etc whether or not it carries legal protection), **marketing intangibles** (e.g. brand-name, trademark, distribution network, customer loyalty etc.) and **trade intangibles** (e.g. identification, development, and management of a strong vendor network with requisite skills and quality standards, efficient supply chain, etc).

The automotive industry trails only the pharmaceutical and technology industries in global R&D spending. Successful efforts translate into IP. However, not all efforts succeed, and the costs incurred toward such unsuccessful efforts are considered investment or sunk cost for the developer. Furthermore, as offshore licensed manufacturers mature and gain relevant experience, they may also undertake significant process improvements on their own.

Presently, most development of automotive technology and the IP related to core product and process intangibles is concentrated in the United States, Europe and Japan. Typically, automotive giants in these countries develop the technologies and license them to their offshore manufacturing units in the developing countries.

However, local manufacturers in the Asia Pacific region are performing greater amounts of in-house R&D. Also, customisation of the product for the local market has increased. Licensed manufacturers begin by performing minor modifications to the existing models and thereafter progress towards developing higher capabilities and engaging in the fully fledged development activities relating to design and development of new models. In cases where the local entity participates in development of such higher capabilities, it may be appropriate to evaluate the application of new/non-traditional models of transfer pricing discussed in detail in the next section of the article. These licensed manufacturers are in close proximity to their local market, so they are in a strong position to understand the preferences of local customers.



Because a product's core brand is closely intertwined with its technology, in most cases it is developed and held by the owner of technology. However, local distributors can help create and spread brand awareness, creating an intangible marketing value. Furthermore, in certain cases the licensed manufacturer could create its own brand, with the end result being a co-branded product.

Moreover, many domestic players in the Asia-Pacific region are now technology owners themselves. They already have strong R&D capabilities and drive the entire R&D effort for technology development at such capability centres. Tata Motors and Mahindra and Mahindra in India; Chery, Dongfeng Motor Corp. in China; and SsangYong Motor Company in South Korea are examples of Asian companies in emerging markets that have developed products finding global acceptance.

Though trade and marketing intangibles are defined differently by the transfer pricing guidelines issued by the Organization for Economic Cooperation and Development (OECD Guidelines) [Para 6.12], the distinction between them often tends to blur.

Automakers should constantly evaluate the changing relevance of these intangibles to determine the appropriate returns attributable to them. Doing so requires answering a few key questions in detail:

What are the intangibles/IP?

Apart from easily identifiable IP, like patents, it is necessary to identify other important competitive advantages or intangibles that evolve as businesses reorganise and supply chains globalise.

Where does it reside? Who owns it?

It is important to know where the IP is generated, who controls it, and where the control is located to identify the economic substance and ownership of the IP.

What specific value does it add?

The quantification of profits attributable to IP and the relative importance of various types of IP is a critical link in a transfer pricing (TP) analysis. The determination of who owns the IP and where the consequent value rests must be a function of the commercial and economic substance in each case and a comprehensive pricing analysis based on valuation techniques to determine the value or price of intangibles/services, etc.

What this means for your business in India

Transfer pricing models for intellectual property in the automotive industry

Determining the value and returns attributable to intangible assets requires analysis of how related entities blend their operations, how they assume risks, and who owns (legally and economically) the various intangibles. Following is an examination of some actual business and transfer pricing models, with an eye toward ensuring compliance with the internationally accepted arm's length standard.

We have focused on India for the purposes of this discussion. However, these principles could apply generally across the Asia-Pacific region. With its wide range of players with divergent operations, the Indian market provides a rich array of models to study.

Dependence on a parent company

At one end of the Indian spectrum, a number of organisations operate with complete dependence on intangibles developed and owned by their overseas parent company or related entities. In a common scenario, an Indian subsidiary manufacturer may use technology and core product intangibles licensed by the overseas company. This type of subsidiary also typically depends on marketing intangibles developed by the overseas parent. In such groups, the brand is centrally managed and is intrinsically linked to the product quality and pre-established significant brand value. The brand value in these cases is not linked to the strength and inherent value of the distribution network.

This type of local entity does not contribute much to the development of business intangibles. Accordingly, the returns for the Indian company would typically mirror the returns of a comparable third-party assembly or distribution company in India. Because this type of company does not participate in the development or ownership of the intangibles, it can be provided a low assured return for its routine activities.

On the same lines, the remuneration/compensation for routine distribution set ups could be determined applying the Berry Ratio. The Berry Ratio evaluates the ratio of gross profit to the operating costs and is a good indicator of returns to be earned by distributors by applying an appropriate mark-up percentage on the value adding costs of such local set-ups.

A similar model could apply to export units in the Asia-Pacific region operating on a contract or toll manufacturing basis for the overseas markets. These units would be remunerated on a cost-plus basis, recognising that their activities do not create IP or add value. In many Asia-Pacific countries, the toll manufacturing model may result in tax issues such as potential permanent establishment concerns. In such a case, the contract manufacturing model can be followed. Even in these cases, the transfer pricing model could be a full cost-plus mark-up for manufacturing services, plus an appropriate return on capital invested in raw material and finished inventory.

These models may be effective to ensure appropriate profit allocation between countries. However, if export units in India are involved in undertaking value-adding/IP generating activities, it may be appropriate to evaluate the applicability of new/non-traditional transfer pricing models, discussed in detail in the subsequent paragraphs.



Given the increasing pressure on global margins in the industry, such new TP models could also help overcome local profit accumulation in host Asia Pacific countries during current recessionary times.

Adding value

Research and development (R&D):

In certain cases, the Indian entity may also perform high-value; in-house R&D activities that help develop new processes or customisations of existing products and processes. In such cases, it is possible that ongoing R&D is a key local business intangible.

Supply chain management and development of vendor network:

Indian entities may be involved in developing a strong dealer and vendor network. Key elements of a strong network are proximity to the supplier and customer, quality of post-sale maintenance and repair services, and real-time availability of spare parts. All these services provide value-added trade benefits.

Local marketing:

Another category of Indian players simply utilise technology provided by the overseas company while undertaking all significant value adding local market development activities.

Such companies control local decision making and undertake local on-the-ground marketing activities, including: development of brand awareness for Indian customers; development of a strong distribution network; relationship management of the distributor network; and post-sale customer loyalty efforts, such as maintenance and repair services.

Thus, the Indian entity contributes significantly to the local marketing efforts necessary to generate Indian sales, even though the core brand of the product and global marketing is undertaken by the overseas company. Further, it must be noted that due to regulatory rules in India, typically a single entity is responsible for both manufacturing as well as market development/ distribution activities (classical principal structures may lead to regulatory concerns in India).

In these cases, the first option for determining the arm's length price for technology licensing and use of brand names or trademarks is to review comparable transactions and licensing arrangements in an independent third-party situation.

In practice, however, it may be difficult to find information in the public domain concerning comparable third-party arrangements. As a result, in some cases, depending upon circumstances, the Profit Split Method may need to be evaluated.

Profit Split Method (PSM) of setting transfer pricing

This method applies mainly to international transactions involving the transfer of unique intangibles or in multiple interrelated transactions. PSM evaluates whether the allocation of the combined profit or loss attributable to a controlled transaction is arm's length in reference to the relative value of each entity's contribution to that combined profit or loss.

Applying PSM requires first determining the average profits earned by third-party contract manufacturers in India. Normal return is the return any enterprise would earn in the market in the absence of intangible assets. Supernormal profits are earned by an enterprise due to the use of intangibles.

To determine supernormal profits, subtract the normal return from the total profits earned by the Indian entity before making any payments for use of intangibles. Companies can then split the supernormal profits appropriately among the various intangibles in an economically justifiable manner, based on the respective contributions of each intangible.

For example, assume that a licensed Indian OEM earned a 10% return on sales before royalty and marketing expenditure. Also, assume comparable independent contract manufacturers in India that do not own or use any significant intangibles earned an average return on sales of 4% during the same period.

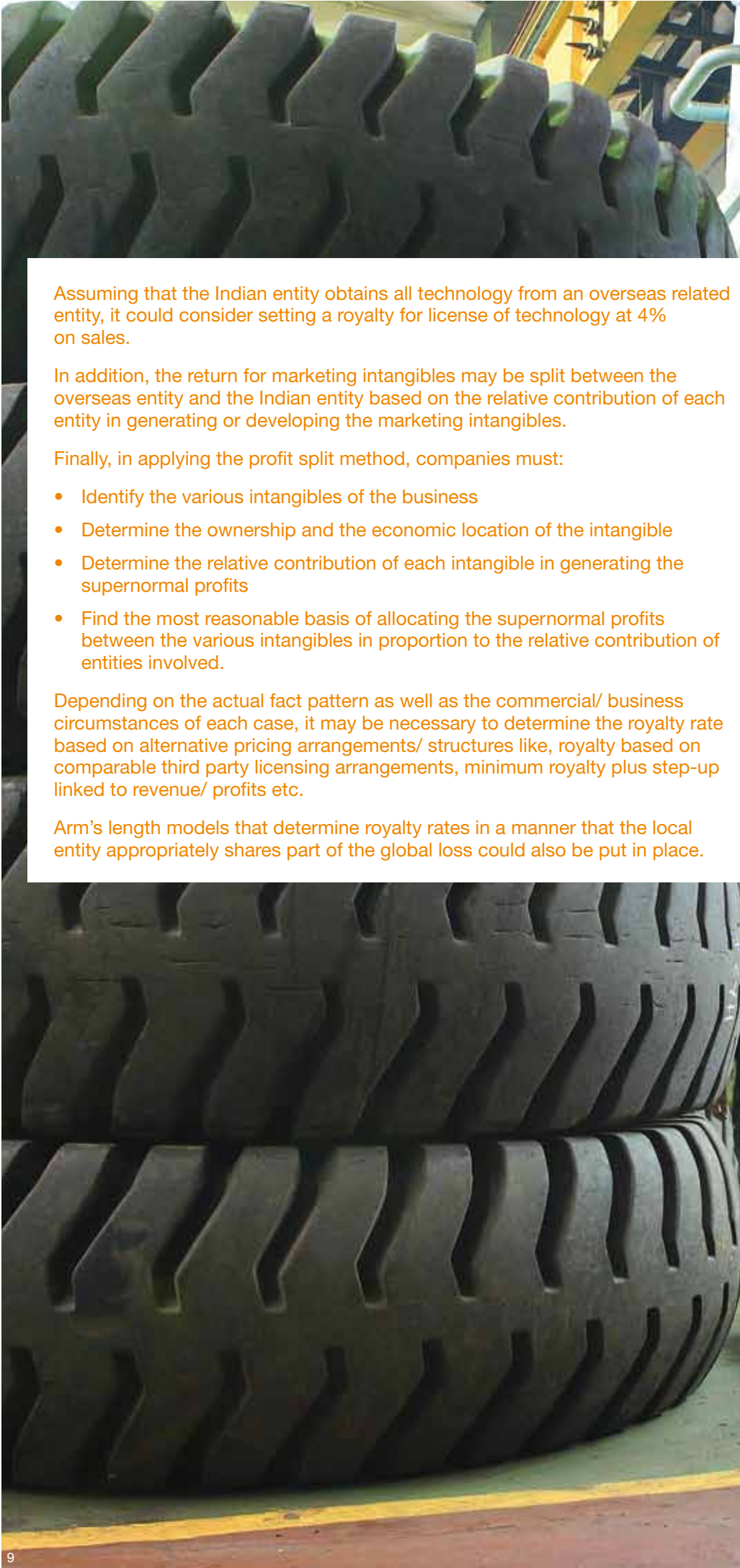
Using these figures as the base, it can be said that the 4% profit margin relates to routine manufacturing activities. That represents the normal return of independent contract manufacturers in India.

Subtracting that 4% from the 10% return generated by the licensed company leaves 6% attributable to the various intangibles:

$$10\% \text{ total return} - 4\% \text{ normal return} = 6\% \text{ supernormal return}$$

Now, assume that the intangibles identified for the OEM are: (a) technology, (b) brand and market development, and (c) supplier network and supply chain. A detailed functional analysis indicates that among the three intangibles, technology assumes significantly more financial importance than marketing and supply chain network. Accordingly, technology may be attached a weight of four percentage points, while the other intangibles may be assigned a weight of one percentage point each. The supernormal profit of 6% might therefore be split in the following manner:

Intangible	Profit split
Technology	4 percentage points (4/6 of the supernormal profit of 6%)
Brand and market development	1 percentage points (1/6 the supernormal profit of 6%)
Vendor network and supply chain	1 percentage point (1/6 the supernormal profit of 6%)



Assuming that the Indian entity obtains all technology from an overseas related entity, it could consider setting a royalty for license of technology at 4% on sales.

In addition, the return for marketing intangibles may be split between the overseas entity and the Indian entity based on the relative contribution of each entity in generating or developing the marketing intangibles.

Finally, in applying the profit split method, companies must:

- Identify the various intangibles of the business
- Determine the ownership and the economic location of the intangible
- Determine the relative contribution of each intangible in generating the supernormal profits
- Find the most reasonable basis of allocating the supernormal profits between the various intangibles in proportion to the relative contribution of entities involved.

Depending on the actual fact pattern as well as the commercial/ business circumstances of each case, it may be necessary to determine the royalty rate based on alternative pricing arrangements/ structures like, royalty based on comparable third party licensing arrangements, minimum royalty plus step-up linked to revenue/ profits etc.

Arm's length models that determine royalty rates in a manner that the local entity appropriately shares part of the global loss could also be put in place.

Transfer pricing for contract research and development/ engineering services.

In the case of Indian units engaged in R&D activities, a detailed value chain analysis should be undertaken to determine the appropriate transfer pricing model for such R&D activities. The pricing basis for these R&D operations would depend upon the extent of value addition and functions performed by the Indian entity.

If the Indian R&D producer works as a contract service provider for an overseas parent or affiliate entity and is performing research activities with no significant control of major development efforts, the Indian operations can be remunerated for the services on a cost-plus basis.

But there are cases where the Indian entity deploys a highly skilled workforce and makes significant valuable contributions to the complete business by improving the core products or other important elements of the enterprise. If cost-plus methodology is adopted for such cases, the plus may require a higher value based on comparable high-end R&D service providers in India. However, in all such cases, it is important to make appropriate adjustments on account of differences in risks assumed by the captive R&D centres vis-à-vis independent third party comparables that assume more risks and consequently earn a risk premium.

In another category of Indian R&D centres, the Indian enterprise itself is responsible for the entrepreneurial innovation of the entire project or product. Obviously, in these cases, the Indian operations make significant contributions to the IP development by taking complete responsibility for the particular development activity and assuming all the risks of development efforts. Therefore, the R&D activities in this case result in the creation of IP, and the cost-plus model may not be appropriate.

Business models and appropriate transfer pricing approaches.

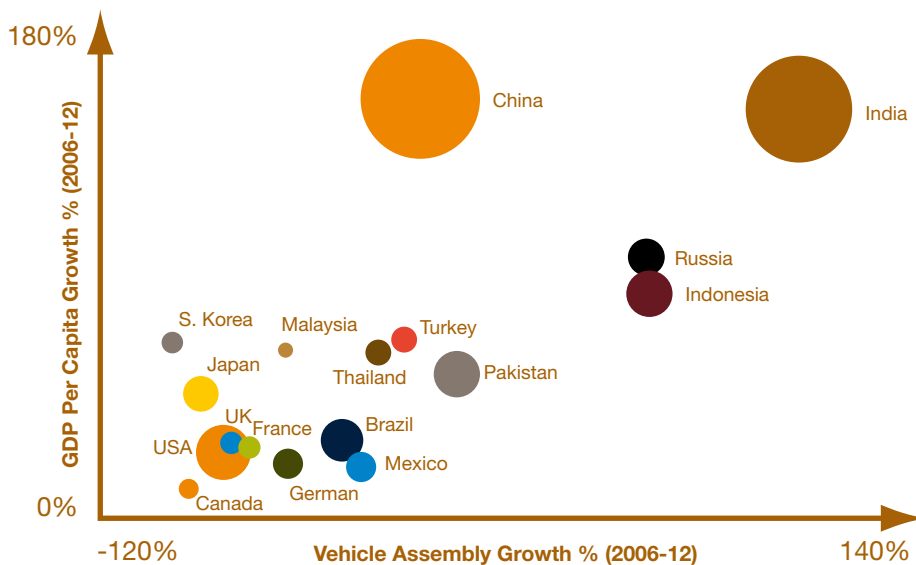
Some possible transfer pricing models that can be considered for operations in India or the Asia-Pacific region are summarised in the following table:

Business model	Possible transfer pricing model
Companies engaged in undertaking routine manufacture/assembly or distribution activities, using the core technology and commercial/marketing intangibles provided by overseas group concerns.	Remuneration based on risk-reduced assured return for routine functions, based on the returns of third-party comparable assembly/distribution/manufacturing companies as the case may be. Berry Ratio could be applied for distributors. Relatively higher margins in automobile industry in India.
Export units operating on a contract or toll manufacturing basis.	Export units, operating as toll manufacturers could be remunerated on a cost-plus basis, in respect of their non-IP creating, value-adding service activities. On the other hand, transfer prices of contract manufacturers may be determined either based on a) full cost-plus mark-up for manufacturing services; or b) return for value adding activities plus an appropriate return on capital invested in materials and finished goods inventory. These depend upon whether the contract manufacturer undertakes the functions and bears the risks relating to raw materials and finished goods inventory.
Entities that utilise the technology provided by the overseas company but make significant contributions by way of local marketing efforts or customisation by local engineering activities.	A licence fee for technology could be based on comparable transactions/licensing arrangements or Profit Split Method could be used to determine the value/return for the various intangibles and appropriately splitting the residual profit between various entities.
Contract/captive R&D and/or engineering service units engaged in undertaking low end/routine research activities with no significant decision making relating to the major development efforts.	These operations could be remunerated for the services on a full cost plus basis. In spite of the recent global downturn, the margins in services industry are still estimated to be comparatively higher in countries like India. Appropriate adjustments are however necessary on account of differences in the risk profile of such captive centres vis-à-vis entrepreneurial comparables.
Captive/in-house units employing highly skilled workforce that make significant valuable contributions to the complete business/value chain (i.e. making improvements to the core products, etc).	Cost-plus methodology with a relatively higher plus based on comparable high-end R&D service providers. Appropriate adjustment necessary on account of difference in the risk profile of such captive centres vis-à-vis the comparables.
In case of captive/ in-house R&D centres involved in full fledged innovation activities relating to product development, thereby operating as entrepreneurs that make significant contributions to the IP development and assume related risks of the development efforts.	Profit Split Method to determine the value/return for the intangibles and split equally between the group concerns.

Conclusion

High shipping costs and government regulations, such as tariffs and quotas, have placed a premium on creating proximity between manufacturers and consumers in the automotive industry.

Accordingly, OEMs looking to tap into growing markets have increased production and assembly operations in Asia-Pacific countries. As the following graphic demonstrates India and China hold by far the greatest potential for growth in the industry.



Source: Economist Intelligence Unit & PwC Automotive Institute

In view of the recent global downturn, the estimated growth rates reflected above are facing a serious slowdown. However, the growth rates in Asia Pacific countries are still estimated to be relatively higher compared to developed countries.

Consumer preferences in those countries increasingly influence the vehicle design process. OEMs must take into account these local preferences at the design stage and adapt their products accordingly. These local facilities also allow OEMs to mitigate exchange rate risk and establish low-cost manufacturing/assembly facilities capable of producing future exports.

Traditional transfer pricing models and approaches (like central entrepreneur models with assured cost plus or limited risk distribution returns for local entities) may therefore not always work for resolving intangible-related issues in the automotive sector. In case of local companies undertaking value adding/IP generating activities, it may be appropriate to evaluate alternative pricing models like the Profit Split Method, royalties/ payments linked to revenue etc. for setting intra-group transfer prices.

These new models could also be effectively used to avoid profit accumulation in local entities during global downturn situations. Established thinking may therefore need to be challenged, and such new models may need to be implemented, especially in view of developments in the industry in many of the emerging markets.



Authors



Tarun Arora

Partner

PricewaterhouseCoopers (India)

Tel: + 91 98100 44798

arora.tarun@in.pwc.com



Rahul Mitra

Partner

PricewaterhouseCoopers (India)

Tel: + 91 98300 55281

rahul.k.mitra@in.pwc.com



Shikha Gupta

Manager

PricewaterhouseCoopers (India)

Tel: + 91 98108 96630

shikha.gupta@in.pwc.com

Other contacts

Loek de Preter

Transfer pricing partner

PricewaterhouseCoopers (Germany)

Tel: +49 (0) 69 9585 5735

loek.de.preter@de.pwc.com

Stuart T Wedgwood

Senior manager

PricewaterhouseCoopers (UK)

Tel: +44 (0) 121 265 5847

stuart.t.wedgwood@uk.pwc.com

Horst Rättig

Global automotive tax leader

PricewaterhouseCoopers (Germany)

Tel: +49 (0) 30 2636 5301

horst.raettig@de.pwc.com

Bill Hahn

Transfer pricing managing director

Tel: +1 (313) 394 6544

bill.f.hahn@us.pwc.com

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Design Services 23665 (05/09).