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## International

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# How Can Traditional Transfer Pricing Models in the Insurance Sector Adapt to Digitalization?

The insurance sector has undergone significant changes due to digitalization and is expected to fully embrace technological advancements within a decade. The authors explain the main transfer pricing considerations applicable to insurance companies within the context of the digitalized operating models. This article is based both on the information publicly available and the practical experience of the authors in the field of the transfer pricing considerations applied to insurance companies.

## 1. Introduction

The insurance sector has been around for centuries and can be traced back to ancient civilization. In fact, the first formal insurance contract was for marine insurance and was signed in Genoa, Italy in 1347.<sup>[1]</sup> Since then, the insurance sector has experienced drastic changes, just like the whole world. Nowadays, anything and everything can be insured: from having your tongue insured (in Gene Simmons's case) to being insured in the case of abduction by aliens.<sup>[2]</sup> As insurance coverage expands, so do the operating models applied by insurers, with technology playing a more important role in the business. However, many people still consider the insurance sector a paper-based industry heavily reliant on manual processes. This is expected to change rapidly though with "open insurance" bringing new players (i.e. InsurTechs) into the game that rely heavily on digital solutions to gain market share. In fact, Artificial Intelligence (AI) is expected to fully transform the underwriting function by 2030, based on a McKinsey research.<sup>[3]</sup>

This article focuses on the transformation that has been taking place in the insurance sector due to digitalization, and more specifically, on the integration of technology into the day-to-day processes and functions of an insurance group. This provides the context to further explore the shift in value creation within the insurance value chain from a transfer pricing perspective. Such a shift also requires the alignment of transfer pricing models and arm's length remunerations with the digitalization of various functions within an insurance multinational group. Thus, the authors elaborate on their experience as tax advisers and present market research conducted to decipher how the macroeconomic trends in the insurance sector influence today's landscape of value creation within the transfer pricing environment for insurers.

## 2. Is the 2010 OECD PE Report Outdated?

Almost two decades ago in the early 2000s, the Organization for Economic Co-operation and Development (OECD) sought to provide taxpayers and tax administrations with guidance on an overarching approach to the attribution of profits to permanent establishments (PEs) in order to address the complexities and specific considerations for particular business sectors. This led to the publication of the Report on the Attribution of Profits to Permanent Establishments (2010 OECD PE Report) in 2010,<sup>[4]</sup> which included specific guidance for the insurance sector. Prior to this, there was no specific OECD TP guidance specific for the insurance sector.

The 2010 OECD PE Report introduced the concept of Key Entrepreneurial Risk Taking (KERT) functions<sup>[5]</sup> – a term that was initially introduced to acknowledge the strong interlinkage between key functions performed and risks assumed within the financial sector. Within the insurance sector, according to the 2010 OECD PE Report, the underwriting function is considered to be the most important active decision-making function relevant to the assumption of risks.<sup>[6]</sup> Underwriting is the process of classifying, selecting and pricing the insured risks accepted by insurers. Consequently, the risk assumed by insurers when entering into a policy contract (i.e. the insurance risk) is managed by the underwriting function, which determines the levels of risk exposure for the group and defines the insurance premiums

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1. H.O. Nelli, *The Earlier Insurance Contract. A New Discovery*, 39 *The Journal of Risk and Insurance* 2, pp. 215-220 (1972), available at <https://doi.org/10.2307/251881> (accessed 1 Dec. 2022).

2. Martin Insurance Agency, *10 Crazy Insurance Policies That Actually Exist* (26 Mar. 2019), available at <https://www.martininsurance.com/10-crazy-insurance-policies-that-actually-exist/> (accessed 1 Dec. 2022).

3. J. Bilefield, A. Libarikian & P. Schlüter, *Building new digital businesses in insurance* (McKinsey & Company June 2021).

4. OECD, *Report on the Attribution of Profits to Permanent Establishments* (OECD June 2010), Primary Sources IBFD [hereinafter 2010 OECD PE Report].

5. 2010 OECD PE Report, Part I, para. 16.

6. 2010 OECD PE Report, Part IV, para. 8.

charged.<sup>[7]</sup> In addition to earning income from premiums, insurers also invest premiums in various assets and thus report investment income. The income from investments is paramount to pay policyholder claims. Consequently, investment risk and its assumption also plays a critical role in the insurance sector as the investment income it generates is detrimental to the financial health of the group.<sup>[8]</sup>

While the underlying functions performed and the risks assumed within the insurance sector have remained largely the same, digitalization has had an irrefutable impact on the insurance sector over the last years. Now more than ever, insurers need to keep up with customers' expectations to have their experience seamless and digital, similar to notable video streaming or ride sharing applications. Thus, insurers must adapt and evolve at the same pace as their customers. As mentioned earlier, within a decade from now, the underwriting function is expected to be fully automated and enabled by AI. While the authors see a clear technological advancement within the sector, the question arises whether the 2010 OECD PE Report accurately captures the evolution of how KERT functions are performed within the value chain.

Although the 2010 OECD PE Report specifically addresses PEs, the industry specific guidance is also relevant on a principle basis to intercompany arrangements between associated legal entities. Assumption of risks and its interconnection with the most important active decision-making functions is also captured in Chapter I of the OECD Transfer Pricing Guidelines (OECD Guidelines).<sup>[9]</sup>

### 3. Emerging Role of Technology in Insurance

The insurance sector is considered broad with its service offering encompassing various types of insurance policies for customized needs. Common types of insurance policies cover life, health, disability, car, social, liability and fire insurance. While the foundational service offering remains the same, many insurance companies have risen and fallen over the last decade. In the current economic environment, the success of insurers is dependent on whether they can keep pace with emerging trends, market competition and customer needs.

#### 3.1. Major recent market trends

##### 3.1.1. Demographic changes

There has been a steep increase in the number of people living on our planet over the last 50 years. The world population today of 7.9 billion is twice the size of what it was in 1975.<sup>[10]</sup> An increasing population also leads to changing needs and increasing demands, and this affects the way insurers do business. Next to population growth, the increase in life expectancy is a trend directly impacting the insurance sector, especially in Europe. This requires insurers to expand their business strategies in order to respond to the changing needs of an aging population, such as investing in health management.<sup>[11]</sup>

##### 3.1.2. Emerging technologies

Common market trends, such as digitalization, continue to push the boundaries of the insurance sector. Automation, blockchain and AI have become common practices or ways of working in order to remain competitive. This has reshaped the insurance sector as it existed a decade ago, with many more changes expected to come hereafter. Furthermore, new technologies and tools that were previously in development have continued to surface. For example, predictive analysis of data allows insurers to collect significant key data concerning their customer behaviour to provide the customized service offering sought by their clients. Accessibility to this type of information may be considered a game-changer in itself. While digitalization efforts are clearly visible, the insurance sector has also experienced an increased focus on efficiency and a push towards cost reduction. This, however, may come at the cost of innovation and evolution as a result thereof.

##### 3.1.3. COVID-19 pandemic

One of the recent key world events that expedited the process of embracing digitalization in day-to-day business activities is the COVID-19 pandemic. It has facilitated the process by embracing emerging technologies in the new ways of working. Due to the COVID-19 pandemic, decades of change have taken place within days. COVID-19 has been largely a driving force pushing insurers to revisit their operations in a strategic manner, which in turn allowed the business to remain competitive. As an example, the COVID-19 pandemic contributed towards creating the need for globalized platforms with a high level of customization to serve customer needs. However, the same globalized platforms have limited in-person touchpoints. While such market trends are often accompanied by opportunities, these may also result in risks. For example, the market volatility during the COVID-19 pandemic resulted in insurance businesses having to revise their pricing schemes and review their costs to further reduce operating expenses. Nevertheless, such consequences and the measures taken by insurers with respect to these trends determine whether they stay relevant in today's competitive environment.<sup>[12]</sup>

7. 2010 OECD PE Report, Part IV, para. 7.

8. 2010 OECD PE Report, Part IV, para. 12.

9. The reference is made to the most recent OECD Transfer Pricing Guidelines published in 2022, which includes all the developments and changes as a result of the BEPS programme initiated in 2013 and finalized with the publication of the consensus report covering the transfer pricing aspects of financial transactions in 2020, introduced as Chapter X in the OECD Guidelines.

10. M. Roser et al., *How has the world population growth changed over time?*, Our World in Data (2013), available at <https://ourworldindata.org/world-population-growth#how-has-world-population-growth-changed-over-time> (accessed 1 Dec. 2022).

11. S. Milian, *Insurers in Europe need to focus on aging population*, Insurance Blog (10 Feb. 2022), available at <https://insuranceblog.accenture.com/insurers-europe-focus-aging-population> (accessed 1 Dec. 2022).

12. J. Bilefield, A. Libarikian & P. Schlüter, *Building new digital businesses in insurance* (McKinsey & Company June 2021).

### 3.1.4. ESG agenda

Another major macroeconomic trend that emerged is an increased awareness in environmental, social and governance (ESG). Businesses and their customers have become more conscious of sustainability and their impact on investments, but so have public governmental bodies. As the public governmental bodies gear towards net-zero emissions, the insurance sector needs to rethink its strategy further, specifically pertaining to its underwriting and investment strategy to assess whether their investment portfolios would remain profitable in consideration of the changes taking place in relation to ESG policies.<sup>[13]</sup>

## 3.2. Digitalization and the role of technology in the value chain

Digitalization has infiltrated society in such an impactful manner by transforming our day-to-day lives. As technology becomes indispensable in our day-to-day lives, it has become essential for businesses to either drive or follow market trends if they want to continue being a key player in their respective industries. This has caused a notable shift in the strategy that businesses adopt to meet market expectations, which is also reflected in their new generation operating models adopted.

As a result of the market trends mentioned above, the necessity for changing the operating models within the insurance sector has become more pronounced. Expenditure on customer-facing technologies has accelerated over the last years. However, lengthy development times have negatively impacted some of the insurers' productivity, product life cycles and service delivery.<sup>[14]</sup> While the necessary technological advancements (e.g. through the development of intellectual property (IP)) are ongoing within the insurance sector, there are still many unanswered questions on how these should be incorporated in the common operating models implemented by insurers. Nevertheless, the evolution and digitalization of the insurance sector is certain. This is driven by the need for customer-centric operating models that are "shaking up" the traditional insurance sector value chain.

Digitalization allows for greater flexibility in delivering customized service offerings in line with customers' needs, whether this is directly to customers or businesses. This enables a positive experience across the customer lifecycle. The shift in importance of the various value chain functions due to digitalization has put pressure on the traditional transfer pricing models applied in the insurance sector. This is due to changes in the functional and risk characterizations of affiliated entities whose day-to-day operations and responsibilities have been altered with the use of technology.

### 3.3. The value chain then versus now<sup>[15]</sup>

The traditional operating models in the insurance sector are decentralized. More specifically, traditional insurers have been carrying out their business operations via their local carriers (subsidiaries or branches) performing the full range of activities locally, from product development and underwriting to claims management.

Part IV of the 2010 OECD PE Report focuses on the most important functions of a traditional insurance model in line with the most common insurance businesses, such as in the property and casualty insurance businesses. The main value chain functions in the insurance sector, according to the 2010 OECD PE Report, are illustrated in the [Figure](#). It should be noted, however, that the value chain for each insurance group may vary considerably due to factors such as the type of insurance, the line of insurance business and product sold.

**Figure – Main value chain functions in the insurance sector**



The key value chain functions have also seen considerable change as a result of globalization and centralization, which have been accelerated by technological advancement. This has created a shift in the value creation (and entrepreneurial function) away from the local entities. The following subsections explore the notable changes for each main function within the insurance value chain.

#### 3.3.1. Product development

Product development, also referred to as product management, comprises risk, technical, legal and mathematical structuring of the product. According to the 2010 OECD PE Report, market research, gathering and maintaining (claims) statistics, legal stipulation of the extent of coverage, mathematical calculation of the premium depending on the features of insurance coverage (geographical, temporal, demographics, etc.) are considered to be the most important processes of product development. The primary features have a direct correlation with the insured risk acceptance and savings processes that take place as a result of product development.<sup>[16]</sup>

13. Id.

14. B. Heale, *Challenges Impacting the Global Insurance Industry in 2015 and Beyond*, Moody's Analytics (Nov. 2014), available at <https://www.moodysanalytics.com/risk-perspectives-magazine/integrated-risk-management/principles-and-practices/challenges-impacting-global-insurance-industry> (accessed 1 Dec. 2022).

15. It is noted that this section makes reference to the insurance sector in general and acknowledges that this may differ for specific insurers and insurance products.

16. 2010 OECD PE Report, Part I, paras. 26-28.

In the past, the functions related to product development were largely performed locally. There was more focus on the creation of products based on skills and talent pool rather than on customers' needs. Traces of this unwieldy legacy product infrastructure still remain in the current environment. Due to the emerging market trends, it has become vital to modernize product development. In today's world, the collaboration between new product development, technologies and processes is referred to as digital engineering. The inter-application between these three elements is of critical importance as it determines the success of the integration with legacy insurance products and applications. Optimizing this process with the development team would be considered as a comparative advantage in itself.<sup>[17]</sup> Technology has come to drive the product development function to meet customer's needs. This has led to the function being performed centrally resulting in cost efficiencies or additional revenue opportunities, but also across cross-functional teams dependent on their skills, talent pool and technological abilities to ensure that the specific needs of the customers are met.

In order to implement the necessary digitalized changes and to keep pace with the customers' expectations, insurance companies continuously require up-to-date software, systems, technologies and tools. Whilst some insurance companies opt to partner with technology and analytics-type firms, others opt to perform this type of product development in-house, often times where the group headquarters is located.

### 3.3.2. Sales and marketing

The sales and marketing function is governed by the general marketing strategy, which allows for the identification and analysis of customers' needs.<sup>[18]</sup> The sub-processes as part of sales, marketing and acquisition include acquiring and advising clients, assessing requirements and providing quotes and proposals.<sup>[19]</sup> The brokers, who perform the sales and marketing functions, attempt to acquire customers by creating client relationships.<sup>[20]</sup> The importance of this function is highly dependent on the type of insurance. For example, the marketing function is critically important for travel insurance due to its intrinsically profitable nature.<sup>[21]</sup>

In the past, the sales and marketing efforts were conducted through brokers in their respective jurisdictions. Often times, this was done in combination with other functions, such as the underwriting function.<sup>[22]</sup>

The manner in which sales and marketing functions are performed nowadays has evolved drastically with the introduction of the Internet and expansion of distribution channels. There is an increased focus on reaching a greater clientele via popular social media platforms. This process takes place in combination with the increased amount of data available about clients, which allows for targeted marketing campaigns.

Additionally, the introduction of embedded insurance further reduces underwriting risks and distribution costs for insurers. Embedded insurance simplifies the process of bringing the insurance coverage directly to the point of sale. For example, think of opting for a travel insurance when purchasing your flight ticket for your holiday. The concept of embedded insurance has allowed customers to gain instantaneous access to the insurance that meets their needs in their preferred channels.<sup>[23]</sup> Embedded insurance is largely dictated by the general marketing strategy defined centrally, which targets a bigger clientele in comparison to the traditional (local) marketing strategies.

All in all, these changes have resulted in certain main sales and marketing activities being performed centrally (or regionally) as opposed to locally.

### 3.3.3. Underwriting and management of underwriting risk

In the past, the underwriting activity was performed manually by underwriters typically located where the main business function was performed. This was mainly locally where the insurance policies were issued, but also to some extent centrally, where the group policy and general guidelines were defined. The underwriting function and the underlying processes to evaluate the risk of insuring a customer and determining the premium was inherently a time-consuming process. Currently, on account of technological advancements, AI and other data management tools, the underwriting function has transformed and is expected to deliver even further advantages.

Firstly, data management allows for risks to be evaluated and decisions to be made based on an increased amount of data categories containing up-to-date data, as opposed to historical data. Secondly, decisions are not solely based on judgement, but are also backed by science-based research supported by data through means such as, AI, automation and machine learning.<sup>[24]</sup> Thirdly, there is also a greater understanding within the insurance sector of the effects and consequences of the underwriting process, which in turn, leads to better lead time and adapting to customer expectations.

17. Cognizant, *Modernizing the Insurance Value Chain: Top Three Digital Imperatives* (Mar. 2019), available at <https://www.cognizant.com/us/en/whitepapers/documents/modernizing-the-insurance-value-chain-top-three-digital-imperatives-codex4334.pdf> (accessed 1 Dec. 2022).

18. 2010 OECD PE Report, Part I, para. 29.

19. 2010 OECD PE Report, Part I, para. 30.

20. 2010 OECD PE Report, Part I, para. 32.

21. 2010 OECD PE Report, Part I, para. 32.

22. 2010 OECD PE Report, Part I, para. 33.

23. FinTech Global, *Embedded Insurance: the future of insurance distribution* (7 Mar. 2022), available at <https://member.fintech.global/2022/03/07/embedded-insurance-the-future-of-insurance-distribution/> (accessed 1 Dec. 2022).

24. C. Dilmegani, *AI in the Underwriting: Data-driven Insurance Operations* (29 Sept. 2021), available at <https://research.aimultiple.com/ai-underwriting/> (accessed 1 Dec. 2022).

These advantages work in parallel with cost reductions as the turnaround time for the underwriting decision making process has reduced. This has been a game changer within the insurance sector, as this diligent and fastened process has allowed for enhanced and comprehensive decision making, which eventually leads to increased profitability.

While automation and AI are not expected to fully replace the underwriter, the related time and cost savings and consequently risk reduction (through more accurate risk assessments) are expected to be high. As a result, the process of underwriting is no longer executional, but evolved into a more strategic function.

### 3.3.4. Risk management and reinsurance

Within an insurance group, risk management may either take place at the strategic or a more active operational level and it covers risks such as insurance risk, commercial risk and investment risk. The risk management function is carried out in line with internal group policies, namely claims adjustment policy, portfolio policy, reinsurance policy and investment policy, including asset-liability management (ALM). As part of the reinsurance policy, guidelines are determined whether to use reinsurance to manage the insurance risk exposure of an insurance company.<sup>[25]</sup> Reinsurance is a mechanism through which the original insurer (ceding company), transfers risks undertaken by entering into a reinsurance contract with a reinsurer.<sup>[26]</sup> Reinsurance allows for the ceding insurer to limit the volatility in case of negative market circumstances. In addition, it also increases the level of capital available. Reinsurance can be done at varying types of risk transferred, risk size and agreements based on which such a transfer is formalized.

In the past, risk management was primarily conducted locally following general guidelines and policies set at the central group level. Currently, more and more strategic and tactical risk management activities are carried out regionally or centrally. This was enabled by technological advancements and data processing solutions. This also covers reinsurance, which has been specifically affected by the blockchain and ledger technologies. For example, B3i launched a smart contract management system for Property Cat XOL contracts, which is a type of reinsurance for catastrophe insurance. Each reinsurance contract is written using blockchain technology to create smart contracts with executable code on the same shared infrastructure. When a catastrophic event, such as a hurricane or earthquake, takes place, the smart contract evaluates data points and automatically calculates pay-outs to affected parties.<sup>[27]</sup> This is a notable example of how the insurance sector has reduced its lead times through automation to remain competitive.

### 3.3.5. Contract and claims management

Contract and claims management covers the monitoring of a contract (or a group of contracts) over its life cycle and the claim management and reporting process.<sup>[28]</sup> Insurance companies may also provide tangible and intangible insurance help, such as assistance, replacement in kind and physical and emotional help for clients.<sup>[29]</sup>

In the past, contract and claims management was a bureaucratic end-to-end function, which was done manually. The rudimentary manner of conducting contract and claims management left customers with high lead times. In the last decade, however, contract and claims management has become an increasingly digitalized and automated process, which has led to an exponentially higher amount of claims being processed in less time. Chatbots, advanced analytics, the Internet of Things (IoT), custom mobile apps and blockchain are some of the technologies that enabled this progress.<sup>[30]</sup>

### 3.3.6. Asset management

Asset management covers the investment of the reserves and surplus that an insurance company maintains and the monitoring of risks associated with those investments.<sup>[31]</sup> Insurers may often decide to outsource the asset management to third parties.

Currently, due to sophisticated analytical tools, asset managers are able to offer a value-driven approach to investments based on enhanced quantitative research supported by algorithms based on historical market cycles. Such insights maximize the upside while minimizing the downside of risks. Asset management can achieve better results when performed centrally for the group leveraging from a few individuals/experienced asset managers within the group.

Furthermore, the increased focus on transparency and sustainability (e.g. green investments) is defining the direction of the asset management industry. Such direction is also impacting the asset management function within the insurance value chain.

25. 2010 OECD PE Report, Part I, para. 38.

26. 2010 OECD PE Report, Part I, para. 40.

27. CB Insights, *How blockchain is disrupting insurance* (19 July 2022), available at <https://www.cbinsights.com/research/blockchain-insurance-disruption/#:~:text=Reinsurance%20protects%20insurers%20when%20large,reinsurers%20up%20to%20%2410B> (accessed 1 Dec. 2022).

28. 2010 OECD PE Report, Part I, para. 42.

29. 2010 OECD PE Report, Part I, para. 43.

30. G. Gençer, *Top 7 Technologies that Improve Insurance Claims Processing* (7 Feb 2022), available at <https://research.aimultiple.com/claims-processing/> (accessed 1 Dec. 2022).

31. 2010 OECD PE Report, Part I, para. 38.

## 4. Evolving Technology-Driven Functional Profiles and Transfer Pricing Models

As evidenced above, the next generation operating models in the insurance sector have a strong emphasis on technology and digitalization. Nevertheless, the current operating models are often either still very much traditional or a hybrid between traditional insurance operating models and a digitalized insurance operating models. This is predominantly because traditional insurers are large organizations with legacy systems that require significant efforts and costs to implement substantial changes. Furthermore, the extent technology has influenced the business is often not fully understood or cannot yet be fully measured and subsequently reflected in updated transactional flows.

Nevertheless, it is evident that there has been a shift in value creation within the traditional insurance value chain due to digitalization. As a result, typical functional profiles and transfer pricing models encountered in the insurance sector are facing the risk of becoming obsolete and challenged by tax administrations.

This section analyses the main value chain functions within the insurance sector and the bearing their digital evolution has on the appropriate arm's length remuneration of affiliates performing these functions. In doing so, the authors highlight the recent OECD Guidelines which can help insurers adapt their transfer pricing models to ensure that they still adhere to the arm's length principle, in an effort to mitigate tax controversy risk and avoid double taxation.

### 4.1. Main transfer pricing arrangements encountered in traditional insurance operating models

As mentioned earlier, traditional operating models in the insurance sector are largely decentralized. Under such a model, the local carrier within a multinational insurance group, incorporated as a legal entity or branch, would be acting as the entrepreneur performing the main underwriting function, assuming the insurance risk and other related business risks. The local carrier would drive the local sales & marketing efforts, sign insurance policies, collect premiums, and perform the relevant contract and claims management activities. The headquarters of the group would perform a range of activities in support of the local carriers, such as setting group guidelines and policies. Following from this, the main transfer pricing arrangements within a traditional insurance group have been intercompany service charges and cost allocations. These generally follow the guidance included in Chapter 7 of the OECD Guidelines. Under such service arrangements, the relevant costs related to central or regional activities which are benefiting local carriers, are charged to local entities and branches following a cost-plus methodology, whereby specific allocation keys are applied. The allocation keys would largely depend on the type of activity and benefit provided, but often would incorporate an element of business performance of the local carrier, such as the net insurance premiums issued locally.

Another aspect worth mentioning is that intercompany intangibles arrangements generally did not exist within insurance groups. This was due to the fact that the main valuable intangible within an insurance group, which was and most likely still is the customer relationships, was owned locally. Furthermore, the brand in itself was not considered to have a standalone value, as its value was built locally and determined by local marketing efforts. Any brand protection efforts incurred centrally by the headquarters were typically recovered via the intercompany headquarters service charges allocated to local carriers.

Finally, any intercompany reinsurance contracts were generally based on the pricing agreed between the insurance group overall and third-party reinsurance. Thus, the internal comparable uncontrolled method was applied to intercompany reinsurance arrangements.

#### 4.1.1. Increased challenges by local tax authorities

The traditional operating models in the insurance sector have faced increasing transfer pricing challenges in the last years. In an effort to increase the local tax base, tax authorities from both the central location, where the parent or headquarters of the group is located, and the local tax authorities where the local carrier is operating, have attempted to challenge various aspects of the intercompany headquarters charges.

On the one hand, from a local perspective, tax authorities make great efforts in reviewing and challenging the proof of benefit provided by the headquarters' activities performed for which service fees are charged. In certain jurisdictions, such as China, taxpayers may even have to accept that only a certain share of the intercompany headquarters charges will be accepted as deductible, as it is rare for the tax authorities to accept full deductibility.

On the other hand, the tax authorities in the headquarters location would try to argue that the headquarters is involved in more value adding activities. In such case they would expect a remuneration higher than a cost-plus service fee and rather a value-based fee or profit split instead. Specifically, the role of the risk management function and the treasury function within the headquarters are often recognized to be more than a service and to potentially contribute to the value creation within the insurance business. In an effort to avoid practical implementation challenges of profit splits, such type of discussions with tax authorities has led to applying a higher markup (sometimes a double-digit figure) on the costs related to certain activities identified as more value adding. Such position was also confirmed in certain advance pricing agreements (APAs) with tax authorities, for example in the Netherlands.

Additionally, the group headquarters is faced with challenges of partial non-deductibility of costs incurred, as tax authorities argue that the level of costs maintained and labelled as "shareholder activities" should not be borne by the headquarters but instead charged out

to the local carriers. This issue becomes more complex when insurance groups are trying to take a digital leap forward and invest in technology. Often these efforts are taking place centrally, which also bears the related costs. In the initial years of an IP development, it can be challenging to include technology development costs in the headquarters services cost base, if there is no apparent benefit yet for the local carriers.

## 4.2. Evolving role of the IP owner

As important changes occur in the insurance sector with the increasing role of technology, the transfer pricing models applied by insurance groups require the recognition of the IP and the IP owners enabling the digital transformation. This should ensure that an appropriate remuneration is allocated to the affiliated entities involved in the value generated by the IP, translated into margin increase or cost reduction. In most cases, any deployment of automation projects are carried out centrally at the headquarters level, which in turn benefits the local underwriters and insurance business.

Below, the authors highlight two main examples of the digital functions encountered in the new generation operating models in the insurance sector.

### 4.2.1. Digital underwriting

The ability to accurately evaluate the risk of insuring a customer and pricing their coverage appropriately is the backbone of the insurance industry, thus it makes sense that this is considered to be the KERT function within the sector. However, in the current digitalized environment, the manner in which the underwriting function is performed has been evolving. This brings the new term of “digital underwriting” afloat. Digital underwriting is defined as underwriting with new sources of data and technology to make better strategic decisions. Digital underwriting limits the executional tasks performed by an underwriter as the role evolves to become more strategic in nature, while the risk analysis and execution is performed by the software. Thus, the local underwriter’s role and functions diminish on account of the increasing contribution of the automated technologies.

### 4.2.2. Automation of claims management

The shift from bureaucratic to digitalized processes from the insurers’ side have a successive impact on the customer’s experience. From a customer’s perspective, whilst at first sight, the digitalized processes may seem to reduce customer-facing activities, it increases customer touchpoints with customer centricity at its core. Customer support is no longer antique due to the digitalized development. The customer has the complete end-to-end process accessible on their phone, with the autonomy to manage their policy and have the necessary insights at all times on their claims-handling process.

When performing the contract and claims management function, the local carrier monitors the contracts (or a group of contracts) over their life cycle. The respective local insurer is also engaged in the loss and claims reporting process – the establishment and maintenance of a loss reporting system, developing reliable claims statistics, defining and adjusting claims provisions and introducing measures to protect and reduce claims in future. However, as the customer experience gets simplified for the claims management process due to digital solutions such as mobile apps, the functions performed at the back-end locally also decrease.

Similar to underwriting, certain contract and claims management functions cease to exist due to digitalization. Thus, as the functions narrow down, the arm’s length pricing needs to be reconsidered.

### 4.2.3. DEMPE functions and relevance to new generation operating models in insurance

As insurance companies continue to develop intangibles (IP) centrally (or within a specific entity), new intercompany transactional flows need to be considered in order to establish an appropriate arm’s length remuneration of the parties involved and eventually of the IP owner. When it comes to IP and appropriate IP returns, the DEMPE concept, which stands for development, enhancement, maintenance, protection and exploitation of intangibles is key. The concept of DEMPE was first introduced in 2015 in the final BEPS Actions 8-10 report covering the Transfer Pricing Aspects of Intangibles.<sup>[32]</sup> It is considered to be the epicentre of profit allocation pertaining to intangibles, which upon the release of the concept resulted in significant changes in how multinational groups implement the arm’s length principle. DEMPE ensures that the allocation of the returns from the exploitation and the allocation of costs related to intangibles is performed by compensating related group entities for their functions performed, assets used and risks assumed, whereby economic ownership and contribution is recognized as value driving as opposed to the legal ownership.

An analysis should be performed to determine where the DEMPE functions are being carried out in order to determine the arm’s length remuneration that should be allocated to the respective affiliated entities. For example, if the legal owner performs no DEMPE functions, then it will not be entitled to any portion of the profits, other than compensation for its IP holding activities, if any.

Concisely, with evident changes taking place in the insurance value chain, appropriate compensation for the affiliated entities involved in the DEMPE functions of digital solutions needs to be rethought in order to reflect the arm’s length principle.

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32. OECD/G20, *Aligning Transfer Pricing Outcomes with Value Creation – Actions 8-10: 2015 Final Report* (OECD 2015), Primary Sources IBFD.



#### 4.2.4. Transfer pricing models covering use of IP

When IP becomes paramount for the value creation in the new generation operating models within the insurance sector, different transfer pricing models with IP at the centre may need to be considered. In practice, the following transfer pricing models can be used to provide IP rights to local carriers within an insurance group:

- licensing;
- cost contribution arrangement (CCA); or
- incorporating the value of IP into the price of a product or service.

The licensing model would be most appropriate in situations where the development of IP and the related business risks are maintained centrally, by the parent or headquarters. In such case, the IP or digital solution would first be developed, tested, and only later rolled out locally. The licensing of IP entails the provision of IP rights to users in exchange for an arm's length remuneration, typically in the form of a royalty payment (e.g. a percentage of revenue or lump sum). Such royalty payment is subject to a transfer pricing analysis and benchmarking based on the principles outlined in the OECD Guidelines, specifically included in Chapter VI of the OECD Guidelines.

Alternatively, an insurance group may prefer to maintain the entrepreneurial risk of developing and using an IP locally. In such case, the local carriers may consider entering into a CCA which would align with the traditional decentralized operating model in the insurance sector. A CCA is aimed at the joint development of an IP and is designed to compensate the participants' contribution and costs incurred for the joint development of the IP, by means of a compensation payment mechanism. A CCA ensures that no separate licensing of IP rights between the CCA participants is required. Any licensing of IP rights and royalty compensation would be paid only by non-CCA participants, to the extent relevant. While the CCA mechanism may be considered to provide more flexibility to the participants in comparison to the licensing of IP (e.g. number of participants or types of IP in scope), the design and maintenance of the CCA itself may create challenges as it would require significant time and resources to set up and maintain the relevant processes.

Finally, in certain cases there may be business considerations to incorporate the remuneration for the use of technology and IP in the price of a product or service charged to the local carriers. This methodology may, however, add complexities in benchmarking of the appropriate arm's length pricing of the product or service provided. In a fully digitalized operating model, such remuneration may take the form of a value-based fee. Such a fee would be determined as the residual profit after remunerating the local insurers with an appropriate target margin, taking into account their limited functional and risk profile.

### 4.3. Evolution of risk control functions

Since the Internet has transformed the way sales and marketing activities take place, this is also often done in a cost-efficient manner. The headquarters often rolls out a central sales and marketing strategy and localization is performed when necessary. Moreover, increased regulation has pushed insurance companies to take control of their risk management function at a more central level. These trends have naturally shifted the risk control and management functions to the headquarters for the sales and marketing activities, but also for the overall risk management and compliance function.

In transfer pricing, the term "risk management" is used to refer to the function of assessing and responding to risk associated with commercial activity. Risk management comprises three elements: (i) the capability to make decisions to take on, lay off, or decline a risk-bearing opportunity, together with the actual performance of that decision-making function, (ii) the capability to make decisions on whether and how to respond to the risks associated with the opportunity, together with the actual performance of that decision-making function, and (iii) the capability to mitigate risk, that is the capability to take measures that affect risk outcomes, together with the actual performance of such risk mitigation.<sup>[33]</sup> Thus, if this function no longer takes place solely locally (as done in the past), the arm's length remuneration for the headquarters needs to be re-determined in line with its functions performed, risks assumed and assets used. Such transfer pricing analysis would have to balance between the technical merits but also practical considerations of applying a specific transfer pricing method as recognized by the OECD Guidelines. While a profit split type of methodology may be considered more appropriate due to the inter-related activities performed, the implementation of such a method may cause unnecessary burden. As such, in practice parties have often resorted to the application of a cost-plus method where a double digit markup was considered to reflect the value adding activities performed.

## 5. Conclusion

It is evident that the insurance sector has undergone significant changes due to digitalization. All in all, everything from customer touchpoints through increasing digital presence, to enhancing services provided, has shaken up the value chain of the prototypical operating model in the insurance sector.

Whilst the 2010 OECD PE Report provides pivotal guidance to the insurance sector and introduces the ground-breaking concept of KERT (which may also be applied to legal entities), it has become apparent that the 2010 OECD PE Report may be considered outdated in

33. OECD Guidelines, para. 1.61.

today's environment. More specifically, as the shift in the key value chain functions takes place, importance is placed on the underlying strategic decisions of each function as the routine functions continue to become automated.

As the operating models shift towards centralized models, the role of the headquarters has become increasingly important as it takes on risk management for certain value chain functions in which it plays a bigger role centrally. Thus, a transfer pricing analysis has become increasingly important to demonstrate whether the arm's length principle is appropriately captured within the transfer pricing operating model.<sup>[34]</sup> This type of analysis needs to be continuously updated to reflect any changes in the group (e.g. through business restructurings), but also in light of the ever-changing transfer pricing landscape (e.g. regulatory environment) to help mitigate risks and exposures.

With the increasing amount of developments in the financial sector, various tax authorities around the world have now designated teams focused on the insurance sector. These teams actively monitor trends and developments within the sector to understand the impact on the transfer pricing models. Increased access to information and sector-specific knowledge puts the tax authorities in an advantageous position during an audit. Thus, it is ever more important for insurance companies to properly articulate, update and document their transfer pricing policies.

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<sup>34.</sup> OECD Guidelines, para. 1.2.



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