

Digital economy and profits allocation

Science, Computer Science



It is worth highlighting that one of the key features of digital economy, maybe the most relevant and peculiar one, is the users' role within the value chain. As a matter of fact, if we think about Facebook or Amazon business models we can easily note that the users' role is significantly different from the traditional customers' role in the context of a traditional business model. Indeed, according to Facebook business model the users contribute their personal data to the company being enabled to use a social network in exchange. Such data, after being processed by a specific and valuable algorithm, are the goods which are subsequently traded by the company and sold to goods and services providers for marketing purposes. In light of the above, it is quite evident that pursuant to highly digitalized business models (and Facebook should be considered one of the most prominent examples of those models) the users' role represents a pivotal ring of the value chain. In other words, as already noted by prominent scholars, the customers/users of highly digitalized business models do not play the same role as the customers of traditional businesses. While the latter can be considered to be 'passive customers', in simply buying, i. e. consuming, the products or services provided by a company, the former can be regarded as 'active customers', considering that they not only receive a product or service, but also contribute to enhancing its value.

The ground on which the aforesaid value chain key feature is built is represented by the double-sided markets and platforms. Those are the practical tools thanks to which the brand new value chain structure described in this paragraph exists. The essential concept behind double-sided markets is that one single platform offers services to two (or more)

categories of users (e. g. users contributing their personal data for free and advertisers) and positive externalities arise from the different categories of users. We have positive externalities (or, rectius, network externalities) if the utility of each user of one category grows in conjunction with the number of members of the other category through the platform. It is pretty evident now that being interdependent from a utility perspective entails on the other hand being interdependent from a pricing perspective on each side of the intercompany transaction. A clear example of double-sided market could be a free online social network platform generating revenues through collecting, processing and selling users' data to advertisers (i. e. goods and/or services providers). According to such a highly digitalized business model, on the one hand a social networking service is offered to users for free, on the other hand the company offers to advertisers an extremely wide and well-targeted range of audience. It follows from the above that the more users use the social network (by providing their personal data) and the more valuable and interesting the service is for advertisers. Based on the business model of this typical double-sided market example, it is easily understandable why social networks (like Facebook for instance, or Instagram) are able and willing to offer a service to their B2C users free of charge: in such a way an enormous number of users is encouraged to join the platform consequently multiplying the attractiveness of the company for the advertisers willing to pay higher fees for a more valuable service. As already underlined, the double-sided market model is winning and profitable only and if there is a network positive externality.

The aforesaid finding cannot be ignored performing a transfer pricing functional analysis. Indeed, since the customers/users of highly digitalized business models have to be considered as “unconscious contributors” to the value chain of those businesses (i. e. as if they were “unconscious employees”), such a valuable contribution must be taken into account. More in detail, with particular reference to the attribution of profits to a digital PE or more precisely to the ‘significant digital presence’ as laid down in the EU Commission proposal for a Directive introducing a new “digital/dematerialized” PE nexus mentioned above, this feature would be central. In this regard, it is worth clarifying that the EU proposed Directive explicitly states that the authorized OECD approach (AOA) still remains the reference framework based on which the significant digital presence should be attributed the corresponding profits. Notwithstanding the above, the EU legislator understood that the AOA principles has been laid down years ago (i. e. in 2010) without considering the challenges stemming from the economy digitalization e the possible creation of value without any physical presence in a country by trading and exploiting only (or at least mostly) data. Therefore, the EU Commission proposes to adapt the AOA in a consistent manner in order to be aligned with the digital economy specific features regarding value creation. More in detail, the significant people functions criterion is clearly unsuitable for detecting the relevant functions of highly digitalized business models precisely because a significant digital presence most of the times operates in a jurisdiction without maintaining any physical presence or at least without any significant people function in the digital PE jurisdiction. Hence, the EU Commission recognized the activities

related to data and users as economically significant functions that should be considered relevant for applying the AOA to the digital PE in a consistent and effective manner.

Based on the above, we can easily reach the reasonable conclusion according to which the typical users' activity performed in a highly digitalized business model (i. e. contributing data to the company or, rectius, to the head office) should be considered the key function for the purposes of a transfer pricing functional analysis. Not surprisingly, in the author's opinion it directly flows from the above that data are the key assets to be taken into account in the same functional analysis. In this last regard, it should be noted that several scholars have commented and tackled this specific feature of digital economy. According to Suresh Ramakrishnan, the increasing level of digitalization is exponentially multiplying data availability and accessibility. As consequence thereof, according to this view, the blossoming highly digitalized business models started using data as a new currency and data became " the lifeblood of the digital economy" . Following the same line of reasoning, a recent research study by Michael Schrage offers new insights into platform markets and network effects by stating that " network effects turn users into assets". A third further prominent study raises the conclusion that " fuel of the digital economy is data". Pursuant to a number of consultants, information and data as used in the digital economy should be called " customer energy". In conclusion, according to Varian " high technologies industries are subject to the same market forces as every other industry but forces that were relatively minor in the industrial economy turn out to be critical in the information technology. Second-order

effects for industrial goods are often first-order effects for information goods”. To sum up, most of the scholars have clearly noted and explicitly commented that enabling network effects empowers users/customers to both directly and indirectly create new value. In other words, the digital economy is enabling a new model of value co-creation involving the customers/users as unconscious pivotal contributors and value creators. In any case, it appears quite clear that not all the data lead to profits and therefore create value. In this respect, in the author’s opinion the borderline between valuable and non-valuable data is represented by the different business models and the effective role of data that has to be evaluated on case-by-case basis. Last but not least, a transfer pricing functional analysis concerning a digital PE should be focused on the attribution of risks assumed by the digital PE as well. Even if the significant digital presence, being a PE, is a legal fiction aimed at determining the taxing rights borders, based on the AOA a risk allocation analysis is mandatory in order to properly allocate the profits. In this respect, it should be recalled that a risk should be allocated to an enterprise exercising control and having the financial capacity to assume the risk. In addition, it cannot be forgotten that BEPS Action 1 described above underlined several ways in which companies involved in the digital economy can artificially allocate risks between the head office and a digital PE. Those strategies comprise: (i) using a subsidiary or PE to perform marketing or technical support; (ii) maintaining a mirrored server to enable faster customer access to the digital products sold by the group, with a principal company contractually bearing the risks; (iii) limiting the capitalization of that entity to make it financially unable to bear risk; and

(iv) maintaining a warehouse and assisting in the fulfillment of orders with regard to businesses selling tangible products online. In light of the above, specifically in light of the dematerialization embedded in the significant digital presence concept, in the author's view the current OECD Transfer Pricing Guidelines risk allocation framework seems to be unsuitable for properly fitting the digital economy specific features and an additional effort at the OECD level on how a digital PE should be allocated the traditional five types of risks (or, maybe, new types of risks to be elaborated and added to the first chapter of the OECD Transfer Pricing Guidelines) is required.

The further and most important step of the present reasoning concerning the value co-creation models and the role of users' data is represented by the allocation of profits between the head office and the significant digital presence or, in other words, what jurisdiction(s) should catch the value of data: (i) the origin/market jurisdiction (i. e. the jurisdiction of the country in which data are collected/sourced; or (ii) the jurisdiction of the country in which the data are processed most of the times thanks to a specific extremely valuable algorithm allowing, in conjunction with other functions (e. g. human resources and IT), the creation of value?

That is the key issue this paper is dealing with. Some prominent scholars raised proposals regarding such an issue:

- Pasquale Pistone and Peter Hongler proposed, in 2015, to amend the current OECD Transfer Pricing Guidelines by modifying the profit-split method with the introduction of a consistent allocation mechanism based on which an upfront amount of profits should be allocated to the

origin/market jurisdiction and the residual profits should be split among the data collection jurisdiction (the origin/market jurisdiction) and the data processing jurisdiction (i. e. most of the times the headquarter jurisdiction) according to the already existing principles governing the profit-split method;

- Pasquale Pistone and Yariv Brauner proposed, in 2018, that the value generated by highly digitalized business models can be split attributing to the processing activities carried out via the use of hardware and software (i. e. the data processing jurisdiction, where most of the times the abovementioned valuable algorithm is located) a cost-plus markup derived from the margin applied on the market by independent companies rendering similar services and to the data provided by the users the residual value ;
- Raffaele Petruzzi and Svitlana Buriak proposed, in 2018, that the attribution of profits could be based on the revenue deriving from data collected from users in the significant digital presence state. However, according to Petruzzi and Buriak, such data alone would not immediately generate any value. In order to generate value, data would have to be collected, elaborated and exploited (i. e. processed by a specific valuable algorithm). Consequently, the revenue derived from data should be netted off against all of the costs necessary to collect, elaborate and exploit data. Ultimately, the profits attributable to the significant digital presence would be determined subsequently. The aforesaid scholars have based their opinion on a value chain case-by-case analysis. In this regard, interestingly Petruzzi and Buriak

stressed the importance of a deep value chain analysis (VCA) eminently aimed at drawing up a reliable picture on the specific features of value co-creation;

- Jan Bart Schober proposed, on 28 June 2018 during his presentation made in the context of the conference “ Taxing the digital economy: the Eu proposals and other insights”, to amend the EU Commission package on the digital economy taxation by modifying the significant digital presence provision in order to align the new dematerialized nexus with the CCCTB proposal. In a nutshell, Schober proposes, by observing that profit allocation on significant people functions does not match with digital business activities as digital businesses are ‘ scalable without mass’, to draw up a provision depicting a significant economic (instead of digital) presence leaving only the revenues threshold and introducing as splitting factors (a) sales; (b) labor; (assets) and R&D expenses only .;
- Julien Pellefigue noted, in 2015, that the problem of allocating taxable base between integrated and highly digitalized members of a multinational enterprise has been extensively studied by game theorists who have developed specific analytical tools aimed at reaching the same solution to which a fair bargaining process would lead. According to Pellefigue, since the OECD traditional transfer pricing methods are not suitable for properly catching the value as created by digitalized business models (neither the traditional transaction methods nor the transactional net profit methods), a game theory known as “ the Shapley value” could be used to determine what

is the fair amount of profits attributable to each party. This method, pursuant do Pellefigue, would take into account the digital economy value-cocreation features by using a specific set of formulas which would allow to allocate a consistent portion of profits among the headquarter and its local entities (subsidiaries or digital permanent establishments) involved in digital activities such as data collecting etc. The aforesaid solution, even if theoretically feasible, is proposed by Pellefigue as the best one since it is based on an understanding of the real drivers of profit and on the relative contribution of each party involved in a highly digitalized business model. However, as Pellefigue himself realizes, that solution would need a significant counterfactual analysis which on the other hand make it quite complicated and expensive.