

In search of a solution to tax digital economy

No. 354

06-October-2021

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New Delhi**

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Abstract

At present the international tax system is in need of reform so as to ensure that digital corporation pay taxes in countries where they operate. The search for a global solution has resulted in divergence in approaches adopted by countries. This paper delineates the fundamental economic challenges that the tax reform seeks to address, the historical evolution of tax laws and the best possible solutions given the discord between source and residence countries. The paper finds that digital services tax, with foreign credits, can offer a final global solution amenable to developing countries.

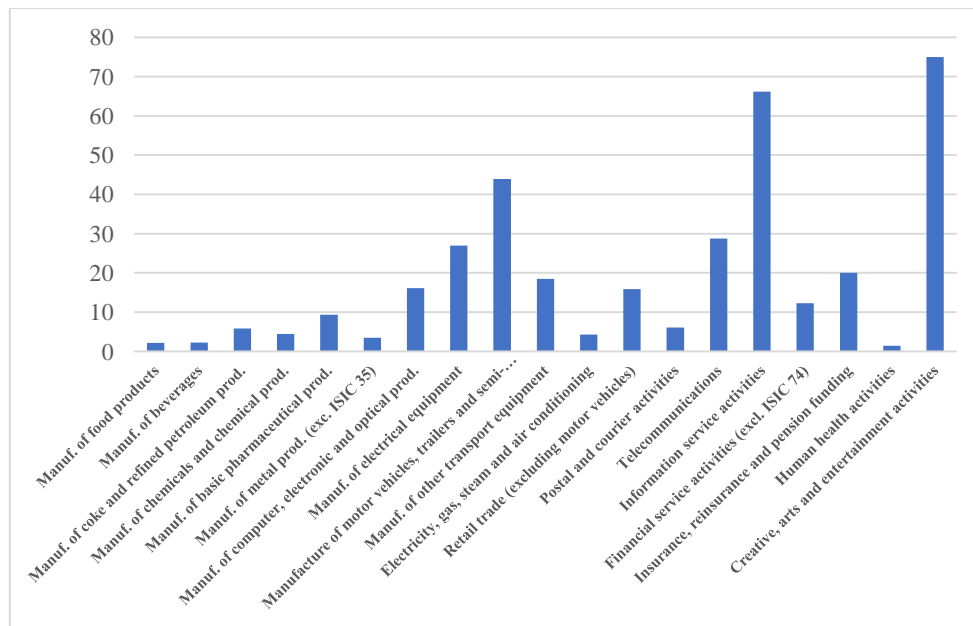
Key words: permanent establishment, digital tax, user participation, treaties, developing countries

1. Challenges with taxing digital economy

Domestic tax law and double tax avoidance treaties define the tax treatment of cross-border incomes. Over the years, there have been cases where Multi-National Corporations (MNCs) with cross border presence have used benefits in law to minimise their overall tax liabilities. A conservative estimate of the resulting fiscal cost is pegged at 4-10% of global corporate tax revenues¹. To address the existing gaps in international tax law, the OECD, at the behest of G20, has undertaken elaborate technical work under Base Erosion and Profit Shifting (BEPS) program. This includes 15 action points of which Action point 1 addresses the tax challenges arising from digitalisation. The premise of Action point 1 was that international tax system currently assigns the right to tax business profits on the basis of economic connection with the jurisdiction. Such connection is based on economic presence i.e. firmly rooted in a fixed place of business. While over the last century debate raged on whether this principle for taxing company profits was appropriate and fair to countries that are the source of profits; Digitalisation nudged the international community to rethink such allocation of taxing rights. The case for market's active role in profits of technology companies has been articulated and considered in all proposals.

The rethink began in the context of large technology companies. However, the digital economy is not isolated from the brick-and-mortar economy. For example, sectors that are considered traditional have been digitalised to some extent. Therefore, the agenda for OECD was framed broadly to address tax challenges arising from digitalisation. One of the most fundamental changes spurred by digitalisation is the lack of physical presence as pre-condition for operations in a jurisdiction. Thus, making the economic connection less tenable. This is observed for example in the case of companies operating in traditional sectors. Companies have digital presence in jurisdictions, as observed from the local IP address, but no mention of the same is made in annual reports, as subsidiary or other related entity. It is seen the incidence of such digital presence, that is percentage of entities that had only digital presence is the highest not just for information services and telecommunications but also *brick and mortar* sectors such as manufacturing.

¹ <http://www.oecd.org/about/impact/combatinginternationaltaxavoidance.htm>

Figure 1 Average percentage of digital presence across sectors


Source: ADIMA,OECD

In 2018, OECD published an interim report on Action point detailing the state of work and the status of discussions. At the time no solution had emerged as acceptable to all and equalisation levy, withholding taxes and new nexus rule were the only known approaches. While these were not endorsed by the OECD, countries such as India had progressed to implement or propose one or more of these in their domestic tax law. Taking notice of the eagerness among countries to find a solution, the OECD's work evolved significantly. It was evident that no solution would preserve the current allocation of taxing rights among source and residence countries. Taking cognisance of the inevitable change, in 2019 the OECD released a policy note². This note marked a significant departure from the implicit position that BEPS program was to not re-examine distribution of taxing rights. Thus, signalling that developed countries are amenable to examining the allocation of taxing rights. This work has taken shape quickly and in October 2020, OECD released the blueprint of the proposal.

International tax relations are governed by bilateral agreements, dotted by specificities. Nevertheless, the norm is set at a supranational level. In recent times OECD assumed this role, a first mover's advantage over its rival UN³. Therefore, the OECD's work focusses on

² <http://www.oecd.org/tax/beps/policy-note-beps-inclusive-framework-addressing-tax-challenges-digitalisation.pdf>

³ <https://www.forbes.com/sites/taxnotes/2020/08/11/how-the-oecd-became-the-worlds-tax-leader/#45bd584d6628>

setting the norm. Given that any proposal to tax digital companies could potentially affect the fiscal resources of multiple countries it is thought that the solution find favour among the countries in OECD's Inclusive Framework⁴. The G20/OECD have laboured to reach consensus. However, the global thinking on taxation of digital corporations has not yet converged. The project was to conclude in 2020 but work on the design is still in progress. In the meantime there are still plenty of design issues that require agreement. With work in progress and no clear solution in sight unilateral taxes have gained traction around the globe. In 2020, India expanded the scope of its existing equalisation levy, France pushed ahead the agenda for a digital services tax, in spite of the threat of tariffs on select exports to US, and UK implemented a digital services tax. These developments signal lack of agreement on fundamental aspects of design. As a result, it is likely that adverse economic impact may result, such as trade sanctions or over-taxation of companies. It is therefore imperative to understand the economic rationale for the redesign and the implication of each of measures. The primary aim of reform is that the profits are not reported where the activity is undertaken resulting in less than appropriate, and in some cases no taxation. This requires that the tax base and the fair rate of tax are identified. This paper provides a framework to identify and characterise the current deficiencies in taxation and identifies appropriate economic basis for the profit. In doing so the paper assesses the current proposals, while evaluating them on the basis of principles of taxation. This paper also suggests plausible way forward for tax policy, from a developing country perspective.

2. The need for change

Profits of a corporation arise from the collective use of factors of productions. These factors of production include physical capital, finance, employees. In theory, 'economic allegiance' came to be the basis for taxation of profits. This concept gained traction since benefit principle⁵ did not solve the problem of international taxation⁶, particularly given the mobility of labour and capital. As it turned out for a non-resident income could not be taxed on the basis of political allegiance or permanent residence. Similarly the *situs* of wealth though an appropriate basis to tax, may not be co-terminus⁷ with the origin of the income in case of international capital flows. Thus economic allegiance came to comprise of four elements-*origin, situs, enforcement of rights* and *residence or domicile*. In practice, tax authorities tend to waver between the place where the property is situated and

⁴ This consists of 137 countries

⁵ Taxes should be related to the benefit derived in the jurisdiction of the economic activity

⁶ Page 18, Report on Double Taxation submitted by Financial Committee, League of Nations, 1923

⁷ Page 23, , Report on Double Taxation submitted by Financial Committee, League of Nations, 1923

income is generated and where the taxpayer is domiciled⁸. The international tax system was designed to balance these competing claims such that tax is charged once on an income and divided between the authorities based on relative interests in each jurisdiction. That is, source and the residence countries. This was formalised in domestic tax law and treaty in the form of the concept of permanent establishment (PE). Its origins trace back to 1909 in German internal law and this was virtually kept unchanged until 1977. *Economic connection* with the source is also the legal basis for taxing business income in a jurisdiction. Originally defined as place of business i.e. its location in a specified geographical location and permanence. Permanence, that corresponds to modern business test, was established if business activity was performed therein⁹. As companies began to operate through local agents in various jurisdictions the definition of PE expanded to include such agent. Initially no distinction was drawn between dependent and independent agent but a 'productivity test' was introduced, later to be replaced by the 'negative list'¹⁰ or exempted activities in the OECD model convention.

The OEEC, later named OECD, drafted a uniform rule of "fixed place of business" in 1963. Further, agency PE was clarified through the commentaries to the convention. In addition to the requirement that the agent habitually execute their authority, authorisation to conclude was considered necessary. Eventually exclusions were made for activities that were preparatory and auxiliary to a business's operation, which would not qualify as PE¹¹. Neither served well the purpose of taxing digital companies.

⁸ Page 20, Report on Double Taxation submitted by Financial Committee, League of Nations, 1923

⁹ Page 75 Skaar A., The history of concept of PE

¹⁰ Page 78, Skaar A., The history of concept of PE

¹¹ Article 5 from tax treaties refers to PE, it may vary between treaties but a sample is provided herein.

"1. For the purposes of this Convention, the term "permanent establishment" means a fixed place of business through which the business of an enterprise is wholly or partly carried on.

2. The term "permanent establishment" includes especially :

(a) a place of management ;

(b) a branch ;

(c) an office ;

(d) a factory ;

(e) a workshop ;

(f) a mine, an oil or gas well, a quarry, or any other place of extraction of natural resources ;

(g) a warehouse, in relation to a person providing storage facilities for others ;

(h) a farm, plantation or other place where agriculture, forestry, plantation or related activities are carried on ;

(i) a store or premises used as a sales outlet ;

(j) an installation or structure used for the exploration or exploitation of natural resources, but only if so used for a period of more than 120 days in any twelve-month period ;

(k) a building site or construction, installation or assembly project or supervisory activities in connection therewith, where such site, project or activities (together with other such sites, projects or activities, if any) continue for a period of more than 120 days in any twelve-month period ;

The PE concept is no longer considered adequate. In 1999 OECD issued a draft report, revised in 2000 to examine the concept of PE in the context of electronic commerce¹². One of the factors considered indispensable to digital operations is server. In the discussion draft of the OECD it was suggested that the Article 5 in treaties (related to PE) would not have to be revised to accommodate for changes in PE requirement for electronic

(l) the furnishing of services, other than included services as defined in Article 12 (Royalties and Fees for Included Services), within a Contracting State by an enterprise through employees or other personnel, but only if:

- (i) activities of that nature continue within that State for a period or periods aggregating more than 90 days within any twelve-month period ; or
- (ii) the services are performed within that State for a related enterprise [within the meaning of paragraph 1 of Article 9 (Associated Enterprises)].

3. Notwithstanding the preceding provisions of this Article, the term "permanent establishment" shall be deemed not to include any one or more of the following :

- (a) the use of facilities solely for the purpose of storage, display, or occasional delivery of goods or merchandise belonging to the enterprise ;
- (b) the maintenance of a stock of goods or merchandise belonging to the enterprise solely for the purpose of storage, display, or occasional delivery ;
- (c) the maintenance of a stock of goods or merchandise belonging to the enterprise solely for the purpose of processing by another enterprise ;
- (d) the maintenance of a fixed place of business solely for the purpose of purchasing goods or merchandise, or of collecting information, for the enterprise ;
- (e) the maintenance of a fixed place of business solely for the purpose of advertising, for the supply of information, for scientific research or for other activities which have a preparatory or auxiliary character, for the enterprise.

4. Notwithstanding the provisions of paragraphs 1 and 2, where a person—other than an agent of an independent status to whom paragraph 5 applies - is acting in a Contracting State on behalf of an enterprise of the other Contracting State, that enterprise shall be deemed to have a permanent establishment in the first-mentioned State, if :

- (a) he has and habitually exercises in the first-mentioned State an authority to conclude on behalf of the enterprise, unless his activities are limited to those mentioned in paragraph 3 which, if exercised through a fixed place of business, would not make that fixed place of business a permanent establishment under the provisions of that paragraph ;
- (b) he has no such authority but habitually maintains in the first-mentioned State a stock of goods or merchandise from which he regularly delivers goods or merchandise on behalf of the enterprise, and some additional activities conducted in the State on behalf of the enterprise have contributed to the sale of the goods or merchandise ; or
- (c) he habitually secures orders in the first-mentioned State, wholly or almost wholly for the enterprise.

5. An enterprise of a Contracting State shall not be deemed to have a permanent establishment in the other Contracting State merely because it carries on business in that other State through a broker, general commission agent, or any other agent of an independent status, provided that such persons are acting in the ordinary course of their business. However, when the activities of such an agent are devoted wholly or almost wholly on behalf of that enterprise and the transactions between the agent and the enterprise are not made under arm's length conditions, he shall not be considered an agent of independent status within the meaning of this paragraph.

6. The fact that a company which is a resident of a Contracting State controls or is controlled by a company which is a resident of the other Contracting State, or which carries on business in that other State (whether through a permanent establishment or otherwise), shall not of itself constitute either company a permanent establishment of the other." (Article 5 India-USA treaty)

¹² Working Party No. 1, OECD, Revised Draft On The Application Of The Permanent Establishment Definition In The Context Of Electronic Commerce: Proposed Clarification Of The Commentary On Article 5 Of The Oecd Model Tax Convention

commerce. All that was required was an update of the legal interpretation of the convention, i.e. commentary¹³ to Article 5. It was thought at the time a server would create PE if it remains at a physical location, this if constitutes a fixed place of business would be determined on case to case basis and the activities should not be preparatory or auxiliary in nature. Further, merely hosting a website would not result in server PE because website does not constitute physical presence. The server itself would not qualify as PE provided that it is not leased or owned by the company hosting the website¹⁴. In time it became amply clear that “while the current permanent establishment definition may provide uniformity and certainty, it is functionally inadequate for electronic-commerce transactions consummated by either a computer server or website”¹⁵. The inadequacies of server or website as PE is also demonstrated in case law in India¹⁶.

The UN model of treaties provides for the *force of attraction*¹⁷ principle such that if non-resident enterprise carries on the same or similar activities of its PE by circumventing it, the profits thus earned shall also be attributable to the PE and be subject to tax accordingly (Yang and Song, 2011).¹⁸ This would therefore attribute additional profits to the market where these are derived from similar activities as the PE. For India, 30 of the 85 treaties incorporate a limited force of attraction provision in Article 7(1). However, where a company is resident of a jurisdiction whose treaty does not have a similar provision or where the company executes all sales without any PE or executes activities dissimilar to a PE, such an expanded scope of attribution of profits will not suffice. Therefore, the nature of business operations in the digital space confine the applicability of the principles of economic connection in a source country, as laid out in the PE or the corresponding commentary.

Not only is there a need to revise the concept of PE or nexus, once it is established that the income earned is a business profit in a jurisdiction then these must be appropriately attributed to the function. That is, if a digital platform is considered as having PE in a jurisdiction the incomes and expenses must be attributed accurately. The process of

¹³ The OECD publishes commentary for treaty interpretation

¹⁴ OECD Article 5 Commentary, supra note 24, Para 42.1–42.10.

¹⁵ Randolph J. Buchanan, The New-Millennium Dilemma: Does Reliance on the Use of Computer Servers and Websites in a Global Electronic Commerce Environment Necessitate a Revision to the Current Definition of a Permanent Establishment?, 54 SMU L. REV. 2109, 2140–45 (2001)

¹⁶ eBay International AG vs ADIT(2013)

¹⁷ Although this is limited

¹⁸ https://www.business.unsw.edu.au/research-site/publications-site/ejournaloftaxresearch-site/Documents/paper2_v9n3_Yang_Song.pdf

attribution too has been riddled in complexity for decades. OECD adopted this as Article 7 in its convention, which remained basically unaltered in all OECD Models until the release of the 2010 version. This article allows for a PE to be treated as a separate entity whose net income can be taxed¹⁹ in the source jurisdiction. That is, for a large MNE its operations say in a source country would be separately taxed to the extent of the activities associated with it. The transactions for companies with cross border presence is often intra-company. This is an important consideration for tax authorities since any mispricing of these internal transactions can shift the taxable profit between countries. To avoid the shifting of profits between jurisdictions, transactions between associated enterprises are regulated by transfer pricing legislation. Such legislation lays down the process of fixing the arm's length price, which is the price of similar transaction executed between independent parties. The arm's length principle is often argued to be fiction that is hard to practically implement. To ease its implementation, the OECD provides guidelines for the application of transfer pricing rules. However, the practices remain at variance across countries, and these guidelines are not enforceable. India, for example, has adopted its own transfer pricing law.

In the case of digitalised operations the integrated process of production makes it hard to separate and ascertain arm's length price for each transaction that is carried out within the company. This is demonstrated in the discussion in the following section. It is argued by experts that an apportionment of profits to the PE may be more useful, i.e. a formula based approach of assigning global profits to PE, something that the Indian authorities have proposed²⁰.

It may be added that tax treaties provide another recourse to taxing incomes in market or source countries. Royalty or fees for technical services (FTS) may be subject to withholding while paying an entity abroad. However, payments made to entities abroad for use of intangibles or for automated services may not constitute the legal definition of royalties and fees for technical services (FTS). Royalty is payable for the use of intellectual property whereas fees for technical services is payable where any managerial, technical or consultancy services are rendered²¹. Thus, applying the withholding has also proven challenging in India. This is demonstrated from the case law reported below-

¹⁹ There are exceptions such as the treaty where the expenses paid to headquarter or related enterprise may not be allowed.

²⁰ Report Of Committee On Profit Attribution, CBDT 2019

²¹ These exclude payments made to employees

1. In the case *EPRSS Prepaid Recharge Services India P. Ltd. Vs ITO (ITAT Pune)*²² it was found that Amazon web services LLC (USA) provides web hosting services to companies remotely. The companies using such services enter into an agreement for access to services, that is computing, along with servers. In the case *EPRSS Prepaid Recharge vs. ITO* it was observed that an Indian entity made a payment to Amazon Web Services LLC for web hosting charges. As per Explanation 2 to Section 9(1) (vi), the Income Tax Department argued that the payment was royalty and reported nil income. Web hosting services used in this instance were online recharges. These recharges were executed with the use of servers and since purchase, maintenance and upkeep of servers required skilled manpower the assessee hired servers from Amazon, in its cloud units. The assessee, as per the terms of agreement, has been granted limited license and site access to AW website for its activities. In return the assessee pays a monthly charge. The assessee argued that the amount paid was for use of services that are technologically driven²³. It was contended that the merely watching CNN/BBC was not the same as using the technology behind it, thus refuting the claims of the Income Tax Department that the said company was using the servers/equipment of Amazon. In this case, the Tribunal ruled that in the present case the assessee did not use or acquire any right to use any industrial, commercial or scientific equipment while using technology services provided by Amazon.

2. in the case of *M/s. Google India Private Ltd. Vs JCIT*²⁴ Google India private limited (GIPL) is a wholly owned subsidiary of Google Interational LLC, US. GIPL is a non-exclusive authorised distributor of Adwords program by Google Ireland (GIL). GIPL entered into a resale agreement with GIL, where in the former undertakes marketing of these services, assists advertisers if required and, collects and remits payments to GIL. While GIPL distributes the services, it is articulated that the entity has no access to or control over infrastructure, process in running the Adwords program. The algorithm, data centre, software are owned by Google subsidiaries outside India. Further, no right or right to use underlying software or IP is transferred to the Indian entity. Targeted or search advertising uses information of users that may be personal identifiers, preferences and online history along with content of two million websites²⁵ to provide focused ad campaigns. The advertiser picks key words, which if searched displays the ad among the

²² ITAno.828/PUN/2016,ITAno.1204/PUN/2016

²³ Page 6, ITAno.828/PUN/2016,ITAno.1204/PUN/2016

²⁴ IT(TP)A.1511tp1516/Bang/2013

²⁵ Page 48, IT(TP)A.1511tp1516/Bang/2013

results. The selection of key words is pivotal and Google uses expertise and information within its control to suggest keywords, including periodical review of websites and traffic forecast of the list of key words. These may be exact match, phrase match or broad match and the traffic to a web page can be restricted with the use of negative words. The advertiser then pays as an auction price for the keywords. This is based on the placement of the advertisement. As per the agreement signed between GIPL and GIL confidential information which consists of customer data (not IP) is available under the ITES agreement and not distribution agreement. ITES agreement relates to the functions performed to ensure the ad confirms to the internal standards of Google. The data, which would include Indian users and the services performed are located outside India. Payments remitted by GIPL between 2006-07 to 2011-12 was reported at INR 14524.2 million. The tribunal's main contentions raised by GIPL were that a) the payment did not qualify as royalty, b) the applicability of the treaties would restrict TDS necessary as per the explanation 2 of Royalty under Section 9(1)(vi). The bench was of the opinion that since GIPL used information, patented technology from GIL the payment made is royalty²⁶. Having stated that the said payment qualified as royalty section 195 of the Income Tax Act required withholding to be made on payments to non-residents. To appeal against such deduction would be the remit of GIL.DTAAs in this case would only prevent the consequence of double taxation and not determine the income to be taxed.

India has FTS provision in many of its tax treaties²⁷, the applicability of the article has been limited by judicial interpretation especially in cases such as *CIT v. Bharti Cellular Ltd.*²⁸ and *ITO v. Right Florists Pvt Ltd.*²⁹ that human intervention is necessary for fees paid to be considered FTS.

It is seen that under the current legal framework there are conflicting outcomes thus limiting the possibility of gross withholding on payments made for use of intellectual property or for the technical services rendered. In addition, the scope of nexus is limited. While this makes the case for a new PE or withholding its design and scope must be based on proper understanding of incomes that currently remain untaxed. The following sections discuss the economics of digitalisation and thereafter consider the current global proposals.

²⁶ Para 123.14, Page 124, IT(TP)A.1511tp1516/Bang/2013

²⁷ 73 treaties, although its provisions vary across treaties.

²⁸ *CIT v. Bharti Cellular Ltd.*, (2009) 319 ITR 139 and ITO

²⁹ *ITO v. Right Florists Pvt Ltd.*, (2013) 25 ITR(T) 639 (Kolkata - Trib.)

3. Economics of digital platforms: Justifying the basis for taxation

The previous section detailed the challenges with applying the existing tax rules, but the main issue that tax policy seeks to address in this regard is if the profits of digitalised businesses are taxed appropriately in the jurisdiction where it operates. The realignment of activity with profits has been articulated as need for identifying sources of 'value creation'. Value creation is associated with intangibles such as data and user participation but as will be discussed in this section the profits are jointly generated by the use of tangibles and intangibles.

There are broad categories of digital businesses. First, there are platforms that are created to fulfil the need for a missing market which brings together otherwise isolated agents. Usually, to find such services offline would require that buyer and seller incur search costs. In case of marketplaces, which include e-commerce platforms, hire and sharing platforms, the platform matches the buyer to seller. In return for its function to create market, the platform earns a commission. Then, there are content generating platforms, that include video streaming, books and music, for which subscriptions are paid by users. Lastly, there are social media platforms where users are provided a medium to interact, free of cost. Individuals connect and through their interactions generate data that can be monetised by the platform. In each of the aforementioned models the nature of interaction varies on the platform as does the stream of income. Other than the social media platforms that more explicitly employ data driven analytics to provide services such as targeted advertising, other kinds of services too employ the data collected for improving service delivery. The revenue model, i.e. how data is monetised and the extent to which traditional goods and services are bundled with automated services varies across platforms. Online marketplaces earn a commission, social media earn primarily through subscription to premium features and monetisation of data whereas a subscription is charged by online content platforms for providing tangible service. Therefore a digital platform can engage in service delivery, market creation and/or marketing services such as advertising.

Data

Data and user participation are critical and distinguishing features of the digitalised economy. Data is an inseparable ancillary for services delivered by digital platforms. In addition to any traditional good or service that is sold, user generated data is collected by these platforms. Data can range from basic identifiers such as name, age, gender and location, the sort that would be available to offline service providers, to relatively

personal information about preferences and history. It is true for any apps installed by user would expand the database available. For example, a standard app seeks permissions upon installation. These would include access to contacts, camera, photographs, location, text messages and phone microphone. Unless the user specifically declines such access the platforms accessed through app collect such information. Further, The information collected by a platform consists of that which is generated from the use of the platform and information collected by tracking users activity on the web³⁰. For example, it is observed that location -targeting is lucrative. The information on location is tracked by the app to construct identity of the consumer. Use case for such information exists among companies from a diverse set of sectors such as IBM and Goldman Sachs³¹.

The collected information in turn can augment the revenue of the platform. It is observed that use of moderately personalised ads on Facebook, for example, can increase click through rates as compared to non-personalised ads³² and ads based on background characteristics³³. Although the relationship between degree of personalisation and success of the ad may not necessarily be linear³⁴, the data collected from users is an input to services and contributes to the revenue stream of the platform.

A finer point often deliberated is that a distinction be drawn between structured and unstructured data. It is suggested that data collected is of little end use value if unstructured and unprocessed. Companies therefore invest in infrastructure and human capital to collect store and process such information. Servers, qualified tech experts and patents/intangibles, including algorithms, such as application programming interfaces (APIs)³⁵ are the inputs.

Therefore data adds value but with the help of infrastructure for digital services which includes algorithms. It is reasonable to say that interdependence between data and intellectual property. However, the causality in value creation is not unidirectional. That is, there is a counterview that algorithms improve with the availability of large datasets. Thus the inseparability problem between intellectual property and data is compounded

³⁰ businessnewsdaily.com/10625-business-collecting-data.html

³¹ nytimes.com/interactive/2018/12/10/business/location-data-privacy-apps.html

³² Tucker, Catherine E. (2014), "Social Networks, Personalised Advertising and Privacy Controls, Journal of Marketing Research.

³³ Aguirre et al (2015), Unravelling the personalisation paradox:

³⁴ Aguirre et al (2015), Unravelling the personalisation paradox

³⁵ "What it really takes to capture value of APIs, Iyengar K., Khanna S., Ramadath S and Stephens D (2018)

by contemporaneous data generation, storage and processing across multiple jurisdictions.

Users

As for the users, these can be sellers as well as consumers of the service registered on a platform. As will be discussed later, many proposals to tax rely on definition of user participation for establishing the economic connection. It is therefore imperative that the users be defined effectively. Users for social media for example can be those registered but not necessarily consumers or producers. The activities performed by each such user is different and their economic contribution will reflect differently in revenue. Theoretically, the contribution of users is also manifest in the direct network effects and indirect network effects that can lead to market dominance and higher profits³⁶. Therefore, while establishing the connect between users and profits, it may be of interest to identify the critical mass of users that is associated with a successful business.

The above discussion illustrates that each platform functions uniquely and the intensity of automation vary across platforms³⁷. For example, more active interactions on social media in comparison to cloud computing. However, there are some common elements that can be used to construct a general theory for markets for digital services.

A general representation of functions performed by a platform as well as user participation is depicted in in Figure 1. It is further possible that, as is often observed, each of the entities i.e. user, third party, seller and tech platform may operate in different jurisdictions.

³⁶ Page 27, Tax Challenges Arising from Digitalisation, OECD, 2018

³⁷ Para 153 , Tax Challenges Arising from Digitalisation, OECD, 2018

Figure 2 Operations of digital business

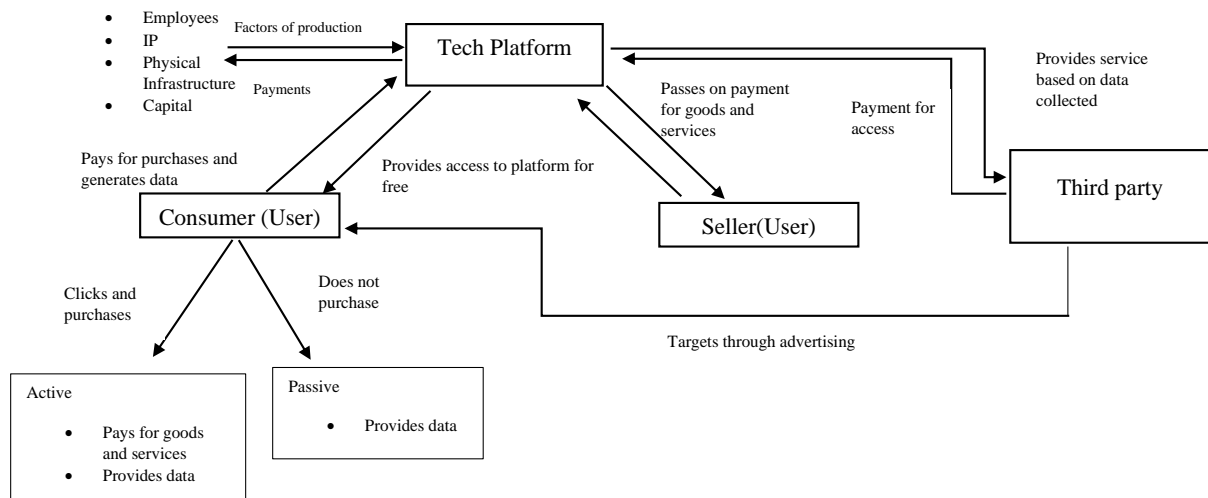


Figure 2 is illustrative of the augmented functions of the digital business. Traditional businesses would combine capital, labour and technology in production and sale of goods or services. Digitalised businesses in addition use data from users. In exchange for this private information of the users a service i.e. the platform is provided to the user. The business may itself use the data generated for better service delivery or it may sell services based on data collected to third parties. The digitalised business can also be a multi-product firm. That is, it may sell traditional goods along with data driven service. Unlike traditional businesses digital companies can scale faster since network effects cause firms to “invert” shifting production from inside to outside the firm³⁸. Therefore, the contribution of users can be purely through the generation of data or through network effects. While the users undeniably contribute to the profits the important consideration is the value of such contribution. A simplistic representation of this contribution could be the profit would be the following expression-

$$\pi = P_1Q_1 + P_2Q_2 - C_{equipment} - r.K - w.L - C_{datacollection}Q_2 \quad (1)$$

$$P_1 = f(location, preference) - discount \quad (2)$$

$$Q_1 = f(K, L) \quad (3)$$

$$Q_2 = f(K, L, User) \quad (4)$$

³⁸ Page 8, The opportunity and challenge of platforms, Marshall Van Alstyne, in Platforms and Ecosystems: Enabling Digital Economy, World Economic Forum briefing paper, 2019

P_1 is the price of conventional good(s) or service(s) provided by the platform. It can also be a vector of prices and goods/services. The price of traditional good/service may be reduced by discounts offered by platforms to gain traction. Executives monetise digital business models by first using discounts to drive network effects, and then after achieving critical mass use network effects to drive monetisation³⁹.

P_2 is price of data, or more generally rate(or cost) per click paid by digital advertisers. Cost per click is calculated using a formula that may in turn be driven by user participation. For example, Google Adwords' sophisticated formula for calculating cost per click is $\left\{ \frac{\text{Competitoradrank}}{\text{Qualityscoreoftheadvertiser}} + 0.01 \right\}$. The Ad Rank is the position of the pay per click (PPC) ad on the search engine. The quality score depends on the Google's quality score depending on the quality and relevance of the keywords and PPC ads.

The output comprises of traditional products and services that are sold through the platform. Each of these products may have their own peculiar production function whereas for data it is suggested that data has decreasing returns to scale⁴⁰ such that the accuracy in prediction improves with availability of more data but at a decreasing rate. Yet, this may or may not reflect in prices of services such as targeted advertising since raw data may not be shared with third parties⁴¹. This allows a platform to charge a higher price for the same set of data.

The profit function (1) is for a company that sells products and data. However it can be used to represent a company that purchases data from a platform to target, for such a company the cost of data collection will be P_2 and all other costs including revenue from data will disappear. It may also be used to represent a company like Facebook that does not provide traditional goods. In such case the P_1Q_1 will be zero. Investment in servers and intellectual property, excluding algorithms to mine data, may be lumpy and fixed. Note that the intellectual property is treated differently from algorithms because these may per se not be patented in certain cases and in certain countries. For example, software related innovations (which may include mathematical algorithms) are considered patentable subject matter in US whereas the same innovation might fall outside the scope of patentable subject matter in Europe or Japan⁴². In addition labour (L) and physical or financial capital (K) may be employed for a wage (w) and rent (r)

³⁹ Page 11, The opportunity and challenge of platforms, Marshall Van Alstyne, in Platforms and Ecosystems: Enabling Digital Economy, World Economic Forum briefing paper, 2019

⁴⁰ Artificial Intelligence, Economics and Industrial Organisation, Hal Varian, 2018

⁴¹ Your data is shared and sold..what's being done about it? , Wharton technology content 2019

⁴² wipo.int/sme/en/documents/software_patents_fulltext.html

respectively. Users are unique input to production, the same user operates an account across platforms and their data is captured by all such platforms. Digital businesses hire labour for conventional functions but user also represent an external labour force⁴³. Only difference that the user participation in one platform does not inhibit the contribution of users to another. Therefore the user is a non-rival factor of production and data produced by a user is non-rival but exclusive. As mentioned earlier, for a multi sided platform a user may be distinct from a consumer or otherwise. For example, the advertiser pays for the data driven service but for an e-commerce platform or a ride/sharing platform consumers are a subset of users.

The cost of collecting data can be thought of cost of developing algorithms that perform better with more training data. On the other hand, cost of collecting data for a third party that purchases services from a platform is nothing but payments made which is equal to cost per click($P_2 = C_{datacollection}$). However, this may not be the same for say a company selling search advertising space.

As for the prices, digital platforms offer discounts in order to expand the network of users and in some cases prices may be dynamically determined as per customer's characteristics. For example, Airbnb, Uber and Lyft use algorithms that price dynamically based on information such as geography, time, availability and events⁴⁴. Where it is dynamically determined, as is observed for multisided platforms, the consumer's surplus which is essentially the difference between the price charged and the actual price that consumer is willing to pay, accrues to the company. Wherever such price charged is higher than what would have been charged under perfectly competitive market conditions is the rent accruing to the company. Thus profits of digital companies in market jurisdictions are often considered monopoly rents. There is evidence to suggest that the incidence of concentration is higher among digital companies. For example, it is estimated that between 2000 and 2014 top 20 per cent of the companies operating in technology, media and telecommunications industry captured 85 per cent of the economic profit of the industry⁴⁵. Further, Apple, Microsoft and Alphabet generated 60 per cent of the profits⁴⁶. Such evidence suggests that digital companies operate in non-competitive scenario. It can

⁴³ Page 8, The opportunity and challenge of platforms, Marshall Van Alstyne, in Platforms and Ecosystems: Enabling Digital Economy, World Economic Forum briefing paper, 2019

⁴⁴ The secret of Airbnb's pricing algorithm, available at <https://spectrum.ieee.org/computing/software/the-secret-of-airbnbs-pricing-algorithm>

⁴⁵ Page 23, Competing in a world of sectors without borders, Alturi V. , Dietz M. and Henke N., 2018

⁴⁶ Page 23, Competing in a world of sectors without borders, Alturi V. , Dietz M. and Henke N., 2018

be said that the market form in turn is function of the cost structures, where the marginal costs are low and economies of scale are achieved through network effects.

From the preceding discussion it is seen that there are three identifiable sources of profits to digital companies which may bear economic connection with market jurisdiction-

- i. Profits that arise in excess on account of the lack of scalability of costs commensurate with revenue
- ii. Additional sales that result from the search and matching functions and would not have otherwise arisen
- iii. Sale of data driven service

Using the expression in equation (1) all such sources profits are captured and any profits in the market jurisdiction can be estimated. However the only two challenges are being able to connect these profits to source and to allocate the central costs. As for the prices, these are easily observed and factor in all nuances such as discounts or dynamic pricing.

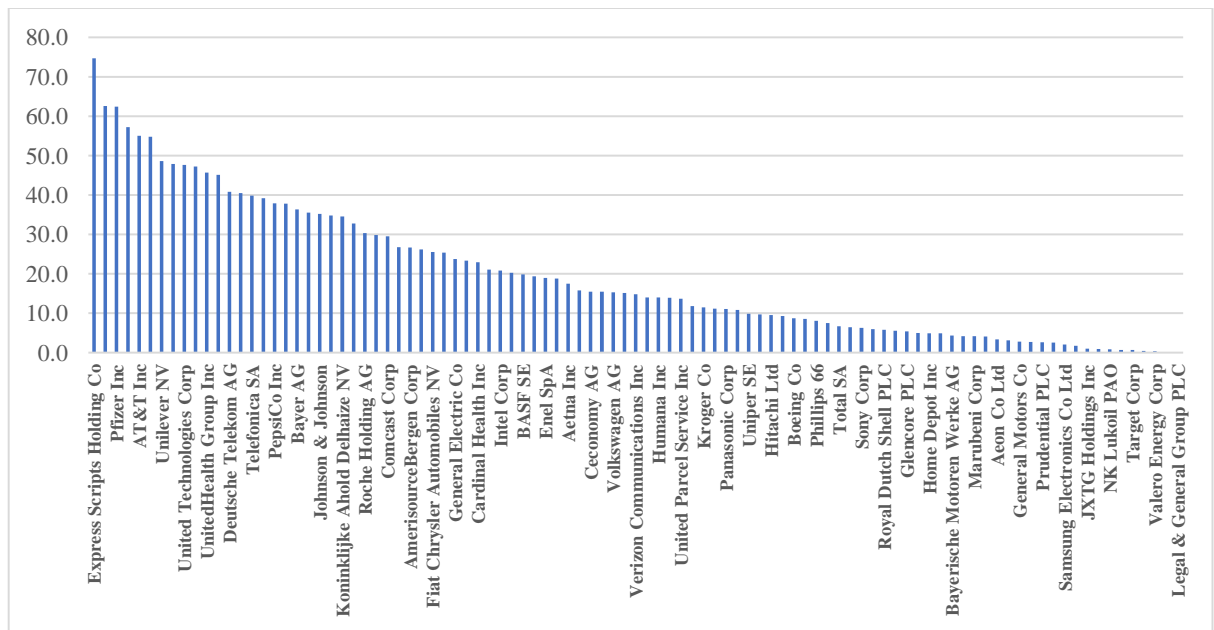
The challenge in taxation of digital companies is often argued to arise from high degree of use of intangibles. While it is true that IP is employed intensively in the production of services, the source of profits are misplaced disproportionately on these intangibles. For example, the comparative size of balance sheet holdings of intangibles by some of the big tech companies do not support this. Taking the annual consolidated accounts of some of the large multinationals reported in Table 1, share of intangibles in total assets is a small fraction for the large technology firms. This is also corroborated by share of intangibles as a percentage of total assets across set of 100 MNEs⁴⁷ reported by OECD. In fact tech companies own smaller fraction of intangibles in their assets than say, pharmaceutical companies.

In fact, a large part of the assets in these companies are held in cash or marketable securities⁴⁸. Even the profit margins vary widely between large tech companies and decline with a lower share of remote activities such as advertising or cloud computing.

⁴⁷ This information is based on OECD's Analytical Database on MNEs

⁴⁸ These include corporate bonds, MBS and G-secs.

Figure 3 Share of intangible assets other than goodwill in total assets, 2019



Source: ADIMA, OECD

Table 1 Revenue and costs of tech companies

Company	Global Net profit margin	Indian Net profit margin	R&D expenses% of total	Marketing expense% of total	Revenues from operations	Share of Intangibles in total assets	Share of marketable securities in total assets	Share of sales region wise	Share of property in total assets	Goodwill	Cost of sales
Alphabet	22.5	4.4	15.7	11.9	Advertising: 83 %	0.9	39.7	USA :47 % APAC:34 %	25.6	7.68	11
Facebook	39.6	10.9	33.2	11.1	Advertising: 98.5%	1.3	42.2	USA:43% Europe:24.4% APAC: 21%	25.3	18.8	30.2
Microsoft	15.0	5.7	42.0	49	Business Processing:32% Cloud services:29% Computing: 38%	3.1	47	USA:50.6%	11.38	13.7	
Oracle	23.6	5.0	16.0	22	Cloud service: 71% Cloud license:11%	4.8	15.9	USA:55.5% APAC: 16.6% Europe:27.8%	5.7	40.4	
Uber tech	11.3	0.9	12.5	23	Rideshare:81.4 % Ubereats: 12.9%	0.2	24.9	USA:53.9% Brazil: 8.5% Others:37.6%	4.96	0.16	39
Amazon	4.3	2.4	13.1	6.26	Online store:52.8% AWS: 11% Third party sales:18.3%		5.8	USA:68.7% Germany: 8.5% UK:6.1%	37.99	8.94	62.00
Pepsico	19.4	3.1	48.6	38.3		2.1	0.3	USA:47% Japan:8% China:8% Others:37%	22.6	19.07	48.6
Johnson and Johnson	18.8	11.8	16.9	35.4	Beauty:31.6% OTC:31.2% Oral care:11.2% Baby care:13.4%	31.1	1	USA:51.34%	11.1	19.9	42.6

Source: SEC, Prowess by CMIE

Therefore, it is possible that a proportion of the profits may arise from the intangibles. On the other hand, property and equipment which include servers, software, website development constitute a larger fraction. However, servers, the closest approximation of physical location, are located remotely for websites in developing countries. For example, in 2018 50 per cent of the websites hosted in Asia and Pacific are hosted on servers in US and Canada. The numbers for Latin America is 73 per cent and that for Africa is 56 per cent⁴⁹. Nevertheless, it may be said that irrespective of the contribution of the various inputs, the profit depends jointly on all inputs and functions performed. The profits arise from remote activity in market jurisdictions. To articulate this problem as one of value creation by intangibles or data is to confuse costs with revenue. To state simply all that is required is that central costs must be allocated across countries and revenue in markets should be reported as having arisen there.

4. Tax challenges

Using the economic framework set out in the previous section it is also possible to identify which incomes associated with digital platforms are already taxed and those which may to be to be taxed better to correct the current system.

Table 2 Factors of production and taxation

Income	Current taxation	Remaining issues
Wages and salaries	Subject to withholding in country of residence.	Service partners do not file tax returns. Although countries such as India are now introducing
Return on finance capital	Dividends and interest are subject to income tax	
Returns to intellectual property	To the extent royalties are paid for registered IP these may be subject to withholding.	Characterisation of incomes as royalty based on transfer of right to use. As is pointed out, IP in the form of algorithms are not patented.
Returns to Physical Infrastructure	The returns associated with functions performed with physical infrastructure such as storage of data or cloud service will be taxed as profits where this qualifies as fixed place of business	The company can scale operations without replicating the infrastructure. Therefore, the payment for use of say servers by markets may not be chargeable to tax since it is not FTS.

⁴⁹ [Global Internet Map \(telegeography.com\)](http://Global Internet Map (telegeography.com))

Returns from data monetisation	Services provided on the basis of data collected may be taxed so far as this income is reported in India.	Such services may not be FTS if automated and not royalty where the income is not considered payment for transfer of right to use. Therefore there is need for a framework to tax profits associated with highly digitalised businesses.
Returns from user participation	Network effects can improve valuation of the companies. Such effects can lead to monopoly and higher profits. Such valuation improvements are taxable on transfer of equity as capital gains or profits of companies reporting such profits.	The economic connection of these returns to operation in the market are not defined. The returns need to be allocated to the market and then the corresponding costs will have to be allocated.

As is expressed in Table 2, the incomes that arise to any factor other than employees, agents and cost of finance currently cannot be either characterised or separated from others. Further, the proportion in which these may be employed by each business may vary. Having said that the bifurcation of costs as well as revenue into IP and data may not be easy. Therefore, the interactions between data and IP as well as the centralised costs that may not be replicated across countries are not easily separable. To overcome the challenges of insufficient profits reported in markets and its allocation countries have in recent times favoured four approaches-

- i. Reliance on turnover based taxes applicable to specific services like digital advertising
- ii. Modifying definition of PE in domestic legislation introducing users or contracts as the new nexus
- iii. Consensus based approach proposed by OECD that will make far reaching amends to existing tax literature
- iv. UN's proposal for a withholding on ADS

Each of these methods seeks to capture the profits while trying to balance the competing principles of administrability and neutrality in taxation. These will be discussed in the following section.

4. Progress of work on digital economy

To bring the system up to date is now a task that the OECD has assumed and will execute through the Inclusive Framework (IF). The IF comprises of 137 developing and developed countries members.

Early, in 2015 OECD in its final report on Action Point 1 identified three measures- withholding tax, equalisation levy and new nexus rule- but none were agreed or ultimately recommended⁵⁰. Work on the agenda continued and Inclusive Framework OECD released an interim report in 2018 that stressed consensus as necessary for a final solution. However countries implemented or proposed to implement turnover taxes in order to protect their tax base. In 2016 India levied a 6 per cent charge on payments made to a non-resident for digital advertising. To bypass the complications of treaty over-ride equalisation levy was introduced through an amendment of the Finance Act. The levy has been widely criticised for the potential over-taxation of companies or a pass forward of charges to the consumer. So far the levy remains applicable to select companies. Then in 2018, the Income Tax Act 1961 was amended to introduce the test for significant economic presence, that widened the scope of business connection⁵¹ in India. However, this has not taken effect due to the required treaty amend. In the meantime as other countries too became conscious of the delay in reaching consensus, unilateral measures began gaining traction. European Commission⁵², in 2017, released its two part proposal consisting of an interim digital services tax (DST) of 3 per cent. This was to be levied on revenue from selling online advertising space, digital intermediary activities which allow users to interact with other users, and which can facilitate the sale of goods and services between them created from the sale of data generated from user-provided information. The tax would be applicable to companies with revenues in excess of euro 5 billion. The other part of the proposal was to modify the PE rule to include a virtual PE which would include a company that reports more than €7 million in annual revenues in a Member State or It has more than 100,000 users in a Member State in a taxable year or Over 3000 business contracts for digital services are created between the company and business users in a taxable year. Commission's proposal suffered a setback as countries within the EU were divided on whether to implement the interim measure. Countries such as Denmark, Ireland and Sweden did not support the tax based on revenue⁵³. In December

⁵⁰ Page 6, Secretariat's proposal

⁵¹ Explanation 2A to Section 9

⁵² https://ec.europa.eu/taxation_customs/business/company-tax/fair-taxation-digital-economy_en

⁵³ <https://www.ft.com/content/fc7330d4-f730-11e8-af46-2022a0b02a6c>

of 2018, months after the OECD report expressed that consensus was not in the offing, EU countries began considering DST. However an EU wide DST, which would primarily affect large tech companies such as Google and Facebook, was pushed to March 2019. The Franco-German declaration made after, urged that the DST enter into force on 1st January 2021, if no international solution, expected to arise from the work of the OECD, has been agreed upon. The said directive, however, would not prevent Member States from introducing in their domestic legislation a digital tax on a broader base⁵⁴. Taking cue, many countries in EU decided to adopt measures to safeguard their respective tax base. Countries including France, Spain and Italy proposed or implemented a unilateral tax. The UK too has implemented a DST. Unilateral measures such as DST and equalisation levy now present a challenge to international co-ordination in tax matters and may potentially result in retaliatory measures in trade. The United States pursued an USTR investigation under Section 301 of Trade Act 1974 of unilateral measures. Its finding, released in January 2021, find that such taxes are discriminatory⁵⁵. While US has put its decision to levy tariffs on hold, unilateral measures continue to apply.

Responding to urgency, OECD in January 2019 published a policy note⁵⁶. This marked a paradigm shift from the original position that the BEPS program was to not examine the allocation of taxing rights. Action point 1 was split into pillar 1 and pillar 2. ⁵⁷Pillar 1 was to examine the issue of taxing rights *without prejudice*. This entailed introduction of a new nexus rule. Later in 2019, the OECD released a draft of program of work which documented the three proposals made by various countries- fractional apportionment, distribution approach and market intangibles along with the new nexus rule. The new nexus rule was to pin down taxable presence of an entity. However, it remained to be ascertained what quantum of profits were to be attributed to the entity in market. In each of the proposals a different method for attribution is suggested and was endorsed by different countries. Among these fractional apportionment for its application to global profits received support from developing countries, particularly India. Applying fractional apportionment would also be tenable in the case of India since Article 7(4) in some of its treaties as well as domestic law permits such apportionment.

⁵⁴ <https://www.consilium.europa.eu/media/37276/fr-de-joint-declaration-on-the-taxation-of-digital-companies-final.pdf>

⁵⁵ [ITI Statement On USTR Section 301 Investigations on Digital Services Tax - Information Technology Industry Council \(itic.org\)](https://www.itic.org/ITI-Statement-On-USTR-Section-301-Investigations-on-Digital-Services-Tax-Information-Technology-Industry-Council)

⁵⁶ <https://www.oecd.org/tax/beps/policy-note-beps-inclusive-framework-addressing-tax-challenges-digitalisation.pdf>

⁵⁷ This is to ensure that the company pays minimum tax.

Despite efforts to consolidate alternatives, there was no imminent winner among proposals. To bridge the gaps in the proposals⁵⁸ in October 2019 OECD's secretariat, a rare exception, released its proposal for Unified Approach. This approach built on the significant commonalities identified in the Programme of Work⁵⁹.

In October 2020 the OECD published the blueprint of Pillar one, which is to address the challenges to taxing digital companies. The proposal is a detailed plan that seeks to separate the incomes that are associated with digitalised processes of production and tax these in countries that are the source or market. The OECD aims to reach consensus by mid 2021. While there are several details that require further work the broad contours of the proposal are discussed herein.

Pillar one proposal

At the very start multinationals that report a global consolidated annual revenue of € 750 million or more will qualify for this tax proposal. This is to ensure that large corporations posing a risk of global BEPS as well as with the where withal to comply are brought into the tax net. For other measures adopted within the OECD's BEPS action plan, such as country by country reporting by MNCs, the qualifying threshold is global consolidated annual revenue of € 750 million. Among these MNCs only those will qualify, which provide automated or standardised services⁶⁰ (ADS) to a large and global customer base⁶¹ or *consumer facing* businesses (CFB) that sell products and services through third party resellers or third parties that perform routine tasks such as minor assembly and packaging⁶². Therefore activities that will be considered in-scope are automated digital services and consumer facing businesses. Revenues from each of these will have to be bifurcated and separate from out of scope activities.

Exclusions or carve outs are being considered for certain sectors. Specific consideration is being given to extractive industries and financial services sector⁶³. That is, companies which have the qualifying revenues but operate in the said sector. The rationale for carve out for these two sectors is that the use of natural resources in a country specific payments are made by the exploiting company to the country and financial sector

⁵⁸ Para 5, Statement of the Inclusive Framework

⁵⁹ Page 2, , Secretariat Proposal for a Unified Approach", OECD

⁶⁰ This includes online search engines, social media platforms, online intermediation platforms, digital content streaming, online gaming, online advertising services.

⁶¹ Para 18, Page 9, Statement of the Inclusive Framework

⁶² Para 25, Page 11, Statement of the Inclusive Framework

⁶³ It is not known how wide is the definition of financial services

services are predominantly for commercial customers, thus not qualifying as consumer facing. Further, it is argued since prudential regulations ensure residual profits accrue in market jurisdictions.

Once the qualifying business groups are selected based on the revenue test. The company will have to fulfil in addition two separate criteria- de minimis foreign in scope revenue. That is the company will have to report revenues from specified activities (ADS and CFB) and they must report significant revenues outside their domestic market. This is to exclude large domestically -focused business with a minimum level of foreign income. Note that the revenues reported by the company will have to be separated into in-scope- ADS and CFB- and out of scope. This is to ensure that the new tax law applies only to companies that have a large component of digital services. If we consider the framework in section 3, the proposal seeks to leave out Q₁, i.e. traditional goods and services.

Thus a list of in-scope activities will be finalised bearing in mind that it does not include sale of tangible goods⁶⁴. Then once it is established that the MNC has in-scope activity, excluding the carve-outs, the nexus of the MNC will be established based on indicators of significant and sustained engagement with the market jurisdiction⁶⁵. As was discussed at length, the main issue that digital tax seeks to resolve is that there are companies that operate in countries without physical presence. Therefore in order to establish nexus with the market the monetary threshold for revenue for ADS and CFB separately where the nexus requirement for CFB will include additional conditions or plus factors. The indicators of sustained engagement will be separately be defined for the ADS and CFB. In order to ease compliance burden it is further proposed that in-scope revenue threshold will be fixed taking into consideration factors such as the size of market, targeted advertising directed at market jurisdiction for CFB.

Once the nexus is established on the basis of the defined thresholds, the consolidated profits before tax⁶⁶ will be used to compute a global residual profit that is derived by elimination routine profits. In theory there is no equivalent concept of routine profits therefore a ratio would require political consensus. The rate of profits considered routine is critical since it will impact the size of profits available for distribution. Non-routine or residual profit would be those accruing to intangibles. A percentage of this residual, which again will have to be agreed to, will then be distributed among the qualifying market

⁶⁴ This is particularly important in the case of e-commerce companies

⁶⁵ Para 37, Page 12, IF

⁶⁶ These will be calculated by harmonising financial accounting standards

entities based on a formulaic approach. The apportionment of this amount will be based on an allocation key that is based on sale, supported by revenue sourcing rules. Where the out-of-scope activities are large the MNC will have to maintain separate accounts for profits derived from these activities. The implementation of the proposal will require coordination and effort of administrators and companies required manage and execute this process. It is recommended that if the profits are to be aggregated by the headquarter then the functions of allocation may be centralised at the jurisdiction where the HQ is located or else a secretariat would be established to carry out such functions. Moreover, the revenue sourcing rules, that will determine the presence of business in a market and associated revenue, are based on indicators that range from IP address of user, geo-location of user to other personal information. While the information is to be self-reported by MNCs it poses a risk of surveillance. At the moment when two countries are affected by revisions in tax they settle through Mutual Agreement Procedure and make corresponding adjustments. That is, the competent authority appointed by each country bilaterally strive for consensus based on discussion. Since the proposal will affect multiple countries and would be undertaken annually, a new process would have to be envisaged for settlement. Particularly since many of these countries may not have bilateral treaties to facilitate such settlement through conventional means. To mitigate the risk of disputes and to provide certainty to the taxpayer it is proposed that an enhanced dispute resolution be adopted. The proposal seeks to establish a panel approach where the MNE can apply for early certainty or a tax administration can recommend a panel review of the reports submitted by the MNE. The decision of panel will be reached within a prescribed time limit and will be binding on all members of the Inclusive Framework (IF). The mandatory and binding dispute resolution mechanism bears semblance with arbitration. It may be said that many developing countries such as India maintain their national position that it will not accept arbitration in tax matters⁶⁷, an issue that has been widely debated in the context of the Vodafone's tax dispute related to offshore indirect transfer.

Simplicity and administrability has been stressed in the OECD's draft proposal. Yet, it seems the solution by its very design is complex and requires clarity in several regards. Contrary to promise, simplicity that the members espouse may be not be practicable. In the words of Grace-Perez Navarro, OECD's deputy director of Centre for Tax Policy, the solution may not be simple because of the very nature, and complexity, of the existing international tax laws⁶⁸. There is undeniably a trade-off between simplicity and consensus

⁶⁷ [India opposes global plan to make tax arbitration binding \(livemint.com\)](https://www.livemint.com)

⁶⁸ OECD official Optimistic About 2020 Deadline, Taxnotes, January 20 2020

and it seems that the former has been compromised significantly to achieve the latter. The fate of the reform is shrouded in uncertainty. US Treasury Secretary urged that the new regime could be possibly made optional or as is suggested *safe harbours* be introduced⁶⁹. So the MNC may elect the application of unified approach. This potentially could be a dampener for the countries committed to consensus, particularly since most big tech companies have headquarters in the US. As a result, countries are moving swiftly to apply turnover based taxes so as to be able garner the revenues lost and some expect this may unduly tilt the balance in favour of markets⁷⁰. However, on the contrary digital services tax may bring more stakeholders to the table to achieve such purpose. Another proposal that has now captured the interest of the developing countries is the UN Article 12 B withholding on automated digital services. This proposal seeks to apply a low withholding tax on any payments made from market jurisdictions for select list of services. Nevertheless, unlike the OECD proposal that would be a multilateral agreement which supersedes the treaties or the DST that bypasses tax treaty limits, the UN article will have to be negotiated bilaterally for it to take effect. Therefore each of these can be evaluated.

Table 3 Comparison of all proposals

Proposal	Pros	Cons
OECD's pillar one	<ul style="list-style-type: none"> • It separates the services as per the intensity of digitalisation and allocates profits to markets accordingly. • It will be implemented through a multilateral convention based on consensus. Such convention will supersede treaties. Thus saving time on bilateral renegotiations of DTAAs. 	<ul style="list-style-type: none"> • The proposal has complex features and requires consensus to be built on a vast number of issues. • The profits are artificially divided into routine and residual and a part of these are allocated to the markets. • The proposal raises several privacy concerns such as User's geo location and IP used as basis of sourcing revenue
UN's proposal	<ul style="list-style-type: none"> • The proposal applies a simple withholding on services rendered that are prone to escaping tax in markets. 	<ul style="list-style-type: none"> • The proposal will have to be implemented by countries such as US. Unfortunately, few

⁶⁹Pillar 1 Carve Out Chaos, Tax Notes International, January 13 2020.

⁷⁰ Schon, 2019

	<ul style="list-style-type: none"> The withholding will capture the profits arising in the markets and will be subject to credit on repatriation. 	<ul style="list-style-type: none"> countries adopt the UN model of taxation. This will require bilateral negotiations with multiple countries, which can be long and time consuming. In India's case more than 90 DTAA's will have to be amended.
Equalisation levy	<ul style="list-style-type: none"> The proposal is simple and does not require amendments to tax treaties It captures the profits from digitalised operations It can help bring countries to negotiate a simpler solution 	<ul style="list-style-type: none"> It can lead to over taxation Pass forward of tax to consumers as higher prices
Test for significant economic presence	<ul style="list-style-type: none"> This can bridge problem of lack of economic connection by making users one such basis It can lead to better taxation where companies can allocate costs and therefore profits accurately to markets 	<ul style="list-style-type: none"> Tax treaties will have to be amended Allocation of costs and profits will have to be designed and agreed.

5. What does data localisation mean for tax

Digital companies are regulated by a variety of legislations that can impact the tax treatment. One such regulation is data localisation. There have been arguments that support that data localisation will result in permanent establishment, which allows countries to tax better (Collin and Collin, 2013). However, the ability to tax companies depends on the nature of localisation and on the judicial interpretation. This has been demonstrated in the previous section in case of server as PE.

The differences in localisation requirement can be in terms of kinds of data that must be locally retained and the restrictions on the transfer and processing. First, for various kinds of data countries may limit their transfer but may allow its processing outside the jurisdiction. Such information may be retained in the jurisdiction of the users or shared only with countries that are compliant with the laws in force in the other country.

Alternatively, the data may be stored in the jurisdiction but be processed in another jurisdiction. In other cases, hard localisation would require that storage and processing take place in the jurisdiction of the user.

Localisation that requires companies to retain the data within the jurisdiction of the users. May also require processing within the same jurisdiction which would result in automated service delivery within user's jurisdiction. In such case the nexus would be unnecessary since servers and processing units would be located in the market. While this overcomes the first hurdle of nexus, attribution of profits from this operation would continue to be on arm's length basis and profits may be shifted to a low tax jurisdiction. Therefore, among the two fold challenges the one where profits would have to be assigned to an operation would still need to be examined even if hard localisation is adopted. On the other hand is the case where a copy of the data needs to be retained in the jurisdiction of the users but processing may be carried out in other locations profits may not arise in the country where users are located. In such a case, even where the nexus is established on the basis of the use of server, provided the server is owned or leased by the company, profits may still be located abroad. There is further complication when assuming that the functional bifurcation is neatly divided between collection, storage and processing. It may be pertinent to mention that where the data collected is encrypted, the use of such data would require this to be decrypted, as may be the case for the financial sector in India⁷¹. Such decryption, a part of processing, may be another step that may further complicate attribution of profits.

Thus while localisation is often supported for reasons that it will help tax better, it may not necessarily be so. As is explained nexus *and* attribution an important issue that would have to be resolved through tax laws in spite of localisation.

6. Conclusion

The theoretical framework put forth in this paper illustrates that the company engages with the market jurisdiction through the user base. The profits that result from the market can vary as per the extent to which the company can expand cross border operations without additional investment. It is also shown that instead of trying to assess the value created by functions or assets, it may be more appropriate to create a metric for

⁷¹ Data localisation in India: Questioning the means and ends, Bailey R. and Parsheera S. (2018), NIPFP working paper 242

decentralisation of costs that digital companies incur and a superior proxy for fixed place of business.

There are at the moment several proposals on the table that will impact not just big tech companies but also of many traditional corporations such as Rio Tinto, Unilever and ICBC⁷² that have digitalised their operations. As is seen in this paper, unified approach would apply to many global corporations is only based on global sales, but with the expressed desire to only apply it to cases where *excess profits* are available for redistribution or to corporations that matter in terms of global scale specific carve-outs have been suggested. Other problematic elements of the proposal are the hard to estimate non-routine profits, which in the case of select companies is demonstrably at variance, and the need for an international body to administer such a complex proposal. The OECD in its latest analysis⁷³ demonstrated that low and middle income countries could gain from pillar 1 but this gain is less than 2 per cent and close to one per cent of the corporate income tax revenues respectively. This gain would arise from investment hubs, defined as countries that attract FDI in excess of 150 per cent of the GDP, which presumably offer favourable tax regimes. Redistribution of the profits is expected on account of intangibles held in such jurisdictions that earn royalties. Further, the distribution of this benefit in turn among various countries is still unknown. On the other hand, unilateral measures such as the DST can undermine co-ordination and result in over taxation. To add to this disparate data localisation laws may convolute compliance for companies while not addressing the tax challenges. Another alternative is the withholding proposed by the UN. This is relatively simpler and if most countries agree to its application can help address the concerns of complexity and over taxation. . Since the key problem is to tax profits that arise in markets, there are two plausible way forward- one, to apply a new nexus and attribute profits with guidance from companies or to apply a withholding which approximately captures the profits in markets. Instead of applying a measure that will be difficult to administer, costly and may potentially be aborted for want of consensus, there is merit in considering a withholding tax exclusive to digital services.

⁷² Castro and McQuinn, Cross Border Data Flows Enable Growth in all Industries,2015

⁷³ <https://www.oecd.org/tax/beps/webcast-economic-analysis-impact-assessment-february-2020.htm>

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