

People Functions Redux, Part II: Value-Driven Profit Apportionment

by Ara Stepanyan and Steven D. Felgran

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In this report, Stepanyan and Felgran continue their exploration of profit allocation or formulary apportionment, building on the concept of people functions on both the supply and demand sides of a multinational’s operations. Their complete model ties value-driven criteria for profit-splitting factors with objective, measurable, and verifiable company and market-based data.

The views expressed in this report are solely those of the authors.

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“Where are you?”

God to Adam, Genesis 3:9.

Background and Introduction

As followers of the OECD’s base erosion and profit-shifting project know, the OECD is working hard to find an acceptable way to update the global profit-sharing rules to accommodate the digital economy by allocating a portion of multinational enterprise group profit and related taxing rights to market countries — that is, countries in which the MNE’s users or customers reside, regardless of the MNE’s physical nexus.

Although directing some taxable income to market countries is widely viewed as a worthwhile objective, the OECD’s current approach suffers by layering onto the existing set of transfer pricing rules and methods some new formulaic profit allocation rules that stray far from the arm’s-length standard. At an OECD-sponsored public discussion of pillar 1 held November 21-22, 2019,¹ there was little agreement on how the international tax system might catch up to the digital economy and no particular unity in response to the OECD’s proposed approach. The one aspect of that approach that attracted a fair bit of attention and some support concerned the potential benefit of imposing more formulaic rules. For example, a Treasury representative stated that “a very significant appetite” existed for

¹The OECD secretariat’s proposal for a unified approach under pillar 1 was issued October 9, 2019; public comments were released, including comments by this report’s authors, November 15; and public consultation on the proposal took place November 21-22.

the tax certainty that pillar 1 could bring by providing a more formulaic approach to transfer pricing.²

In our opinion, introducing new formula-based rules that are layered on top of existing rules and methods, and that are not aligned with economic substance and value creation, is a partial and incomplete fix to a difficult situation that will require a more fundamental revision. The result may well be additional complexity for taxpayers and tax administrations alike as well as a possible onslaught of compliance issues and tax disputes. Although it is clear that difficult economic and political issues need to be tackled to accomplish the OECD's objective of reallocating income, one must wonder if the revisions as currently conceived are starting out on solid ground.

We believe that the inability to appropriately tax digital companies should open up an entire rethinking of the profit-sharing process, which would include a new taxing right for market countries. This is the time to use structural changes in the global economy to streamline the process based on core economics principles, not to add more complexity and potential conflict. We believe that the failure to stop international tax planning that assigns profits to undeserving jurisdictions will continue until the process is made so clear, transparent, objective, and principled that searching for loopholes will be fruitless.

What is needed most of all is tax certainty. It is our hope that political opposition to reform from the tax avoidance industry, investment hubs, and others will be muted in the face of a highly principled, holistic, and tax-certain approach. Finally, if there is to be a formulaic approach, it is imperative that it not be subjective but rather correlate with economic substance and value creation.

As we discussed in our prior article on people functions,³ what is crucial in all discussions of methods and formulas that consider more than

one location per taxpayer, whether profit split or formulaic apportionment, is a direct link between the generation of value by people by location and the commensurate booking of taxable income by location. In our opinion, a quite different formulation for the allocation of taxable profit from that being considered by the OECD is required, one that uses profit-splitting factors directly from value creation.

We view value as being created in the two kinds of countries in which an MNE has a physical or digital presence: (1) countries into which the MNE sells, referred to here as market-demand countries; and (2) countries in which the MNE has production, executive, or administrative operations, referred to here as production-supply countries. In market-demand countries, it is the users and customers who generate value for the MNE, and in production-supply countries, it is the MNE's own employees who generate value. Of course, many countries in an MNE's sphere of operations will host both demand and supply, and thus users, customers, and employees.

In this report, we continue outlining an approach building on people functions, which can serve as a guiding principle for the OECD's inclusive framework for the measurement of value among group entities spread across multiple tax jurisdictions. We previously focused on the supply side of the equation, and specifically on measures of relative compensation of personnel in the aggregate by tax jurisdiction. We now turn our attention to a more in-depth analysis of the demand side of the equation, with a focus on the activity of users and customers in market-demand countries and the revenue they generate.⁴ Having established a practical framework for both the demand and supply sides, we focus on a means of generating a macro allocation between production-supply countries and market-demand countries, and tie both sides together to close the loop in our proposed system.

Our analysis and proposed system are based on data generated through actual company practices, at locations at which the company

² Julie Martin, "US Treasury Official Defends 'Pillar One' Safe Harbor Proposal for New Global Tax Rules," *MNE Tax*, Dec. 20, 2019.

³ Ara Stepanyan and Steven D. Felgran, "People Functions Redux: A New Approach to Profit-Splitting Factors," *Tax Notes Federal*, Sept. 23, 2019, p. 2035.

⁴ A previous version of this report was sent as a comment to the OECD. "Value-Driven Profit Apportionment Consistent With the Arm's-Length Standard — Response to OECD Public Consultation Document: Secretariat Proposal for a 'Unified Approach' Under Pillar One" (Nov. 15, 2019).

engages its users, customers, and employees in uncontrolled transactions. Put differently, we do not ask, “Where’s the money?” but rather ask, “Where are the people?” Where are the users and customers located who are responsible for revenue accrued by an MNE, and where are employees located to whom the MNE pays compensation? If one believes, as we do, that the internet disrupted all global commerce, a primary focus on locating the people responsible for value generation presents the only logical way forward.

As we explain later in this report, we do not propose using employee or customer headcounts as measures of where the people are located. Although employee headcount has been commonly used by tax practitioners and accepted as a self-evident measure of people functions by tax authorities, we argue that headcount is only a partial and often misleading measure of value because it reflects only the quantity, not the price, of such functions. Nor do we propose classifying people functions into “routine” and “non-routine”⁵ because the full monetary measure of value, measured as price multiplied by quantity, captures the contributions of people performing all functions at all levels.

Arm’s-Length Considerations

We do not believe that the quest for certainty and simplicity in tax reform requires doing away with the arm’s-length standard as a theme, but it may well require the cessation of the subjective parts of the transfer pricing process referred to as the functional analysis and the search for comparables. The functional analysis is a core part of any transfer pricing study but unfortunately is overdependent on what company spokespersons represent to transfer pricing practitioners, and on the practitioners’ ability to ask probing questions and demand answers and supporting evidence from their clients.

That almost inevitably leads to unsubstantiated stories about the existence and importance of specific functional roles at specific locations, and it leads to untestable theories about the nature of the risks borne at those locations as

⁵Transfer pricing practitioners typically refer to functions whose value can be benchmarked as routine, and functions whose value cannot be benchmarked as non-routine.

well as the allocation of risk-bearing within the company. An example of this would be a functional characterization of an MNE’s routine distributors as “limited risk,” thus paving the way for a skewed comparables search (or skewed choice of reference point in the arm’s-length range) and a justification for profit booked elsewhere.

Even putting a misleading functional analysis aside, the comparables search process is troubled in and of itself. The fact is that even such elemental searches as those for supposedly comparable third-party routine distributors, contract research and development service providers, or contract manufacturers are fraught exercises because the choice of comparables is almost entirely subjective.⁶ We take issue with those who think that existing profit attribution rules based on comparables work well for most routine transactions, let alone non-routine transactions such as royalty payments.

Thus, our view of the residual profit split method is that maintaining the comparable search process for routine transactions to ultimately produce a non-routine or residual profit is problematic. As discussed below, we strongly believe that the way to accomplish arm’s-length equivalent transfer pricing is by using a company’s own data because rational managerial decisions meant to maximize pretax profit will be objective and unbiased.

As in our earlier work, we propose that to approach an arm’s-length equivalent result, the formulation of any profit-splitting mechanisms should be rooted in the following guiding principles:

1. profit-splitting factors must be connected to first principles of how companies actually operate rather than built on ad hoc and subjective theories about how MNEs could operate;
2. profit-splitting factors must be a readily available and observable product of the

⁶We refer here to searches for comparable companies based on a functional analysis meant to yield a range of comparable profits. The only kinds of searches that are truly objective involve comparable transactions when the controlled transaction involves a commodity traded in the commodity markets or a financial instrument traded in the financial markets — comparable spot prices are then readily available. However, should adjustments be necessary to align the controlled and comparable transactions, subjectivity will be present once again.

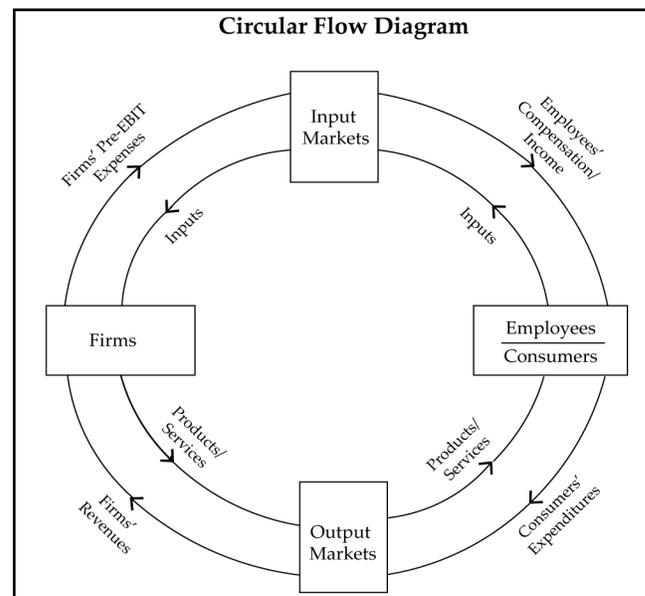
- MNE's own non-tax-related managerial decision-making;⁷ and
3. either profit-splitting factors must not be subject to manipulation or their manipulation must be consistent with economic substance.

People Functions and Value Creation

We believe the people-functions-centric⁸ view of economic substance can serve as an overarching guiding principle for the measurement of value among MNE group entities spread across multiple tax jurisdictions. Simply put, it is of course people who work as management and labor, and people who act as customers and users. Further, intangible assets are the product of cumulative investments in human capital and people are behind the performance of the development, enhancement, maintenance, protection, and exploitation (DEMPE) functions. The people functions concept is as critical to transfer pricing as it is instrumental in objectively allocating risks within a controlled group and in determining the presence or absence of economic substance. Finally, taxation itself is fundamentally linked to people as workers, customers and users, lenders and borrowers, and owners of capital.

The link between people functions and value creation comes down to production and consumption. The value that people add in the production process can be thought of as supply-generated value, whereas demand-generated value stems from consumption and use. If we return to first principles, we remember that individuals and companies are connected by the exchange of resources in the input markets and goods and services in the output markets. The circular flow diagram shows how individuals as employees provide inputs to the market for resources in return for compensation including wages and profits, and individuals as consumers spend money in the market for goods and services; companies purchase factors of

production provided by individuals in the market for resources, and companies generate revenue in the market for goods and services.



We note that the market for goods and services includes the digital market. Put differently, there's nothing extraordinary about digital sales that would put them in a different scenario from the market for goods and services. What is perhaps extraordinary is the desire by the OECD and other countries to have taxing rights when only digital, not physical, nexus exists. However, this is not unreasonable because it is simply part of the circular flow.

The circular flow diagram illustrates how people functions connect to value creation through production and consumption. Inasmuch as any reasonable profit allocation should depend on relative contributions to value, we advocate that (1) contributions to value on the supply side be determined by total employee compensation by residence location,⁹ and (2) contributions to value on the demand side be determined by user and customer revenue in market countries. We find that employee compensation as a supply-side factor and user and customer revenue as a

⁷ The requirements for country-by-country reporting filings could be amended to include the necessary company financial data.

⁸ We refer here to people functions as a whole rather than to that subset known as significant people functions as defined by the OECD in connection with permanent establishments.

⁹ In Stepanyan and Felgran, "People Functions Redux," *supra* note 3, we exemplified the conceptual basis for employee compensation as an outcome of managerial decision-making operationalized through managerial (non-tax-related) transfer pricing and showed the links to tax-related transfer pricing as well as to management unit and entity profitability.

demand-side factor satisfy the above-listed guiding principles for profit splitting and capture value through objective, transactional, and verifiable data.

We turn next to the justification for these profit-splitting factors and how, at a high level, to implement such a structure.

Demand-Side Profit-Splitting Factor

The OECD's objective is to achieve consensus on the method of allocating some portion of MNE global income to market countries for the purpose of taxation. In our view, the calculation of the allocation factors among the market-demand countries should follow a people functions framework. What is needed is an objective and verifiable metric for the value of the demand side that can be translated into a profit-splitting factor. Although several options are available, we believe user and customer revenue can be that metric for the reasons discussed below.

In the non-digital economy, sales revenue is the revenue generated directly from consumers or (third-party) resellers of products and services produced by an MNE. In the digital economy, however, in which the dominant business model is a multi-sided advertiser-supported platform (MSASP), MNEs do not generate revenue directly from users. Instead, on one side of the MSASP, users are provided services free of charge (for example, search engines and social networks), and on another side of the MSASP, the users' digital presence attracts customers who seek to market their goods and services to the users (for example, advertisers pay search engine or social networking companies for the right to advertise to users). In other words, in the physical world, consumers or resellers transact with suppliers directly, whereas in the digital world, the users (or the attention paid by the users) are the product other customers, like advertisers, purchase.

A typical business model in the digital economy is based on the receipt of advertising revenues. For example, as stated in Alphabet's Form 10-K,¹⁰ "We generate revenues primarily by delivering both performance advertising and

brand advertising." Alphabet tracks how many users see or click on ads, and the revenue collected from advertisers is a direct function of user activity. In other words, advertisers pay Alphabet based on the number of user views or clicks, and Alphabet knows precisely where those users are located. Software tools such as cookies enable more precise targeting of ads and thus higher charges to advertisers per user view or click. Alphabet and other digital companies know precisely how much revenue users generate by location. The same is true of other business models, such as those in which users are charged directly.

The common attribute of revenue-generating transactions, which are relatively easy to verify and difficult to manipulate, is the user location (as contrasted, for example, with the location of advertising revenue, which is manipulable). In the non-digital world, the user location is simply the location where customers purchase products and services for use, consumption, or resale. In the digital world, however, the user location is where users maintain their digital presence, monitored and tracked by MSASP businesses using IP addresses and more sophisticated methods. Because MNEs do not exercise control over the location of their users and customers, the revenue that is generated from them is a good candidate for a demand-side profit-splitting factor that is not manipulable.

Moreover, user and customer revenue as the demand-side factor satisfies the above-listed guiding principles for the formulation of a profit-splitting mechanism. Revenue data by location are available from companies because those data are collected according to globally accepted accounting standards, whether generally accepted accounting principles or international financial reporting standards revenue recognition rules.¹¹ Our opinion is that user and customer revenue by location would be a good metric for the purposes of constructing an appropriate weighting mechanism for the allocation among the market-demand countries. It can be traced to the country of users and customers regardless of

¹⁰ Alphabet Inc. Form 10-K, at 9 (2018). Retrieved from SEC EDGAR website.

¹¹ Digital MNEs might require guidance as to how to measure user and customer revenues in an objective and verifiable format that will be transparent to tax authorities.

whether the MNE's business is in non-digital or digital space, and it provides information about user and customer monetization.

User and customer revenue is a strong indicator of external performance, and the users and customers themselves represent a valuable intangible asset that the MNE exploits. Unlike the use of employee compensation (as discussed below as the supply-side factor), user and customer revenue is not connected to internal performance measures beyond those captured by the compensation paid to sales and marketing employees and it is not part of a company's production inputs. We emphasize that both external and internal measures are valid indicators of an MNE's performance and arm's-length results if they are uncontrolled and not manipulable for tax purposes.

User and customer revenue is correctly calculated as a total figure by tax jurisdiction — that is, inclusive of business-to-business and business-to-consumer sales (and not just consumer-facing). We support the establishment of some minimum revenue thresholds by location.

There are some other possibilities for a demand-side profit-splitting factor instead of user and customer revenue or as a supporting method. One possibility that no one has mentioned but we have considered is data usage, specifically the measurement of transaction volumes in terms of data transmission measured in gigabytes broken out by company and jurisdiction. In principle, the amount of time spent by users in front of their devices should be directly correlated with gigabytes used. This might be a good objective check for the demand side, especially for digital companies.

Supply-Side Profit-Splitting Factor

As discussed in our prior article, the total compensation paid by MNEs to employees by tax jurisdiction serves well as a supply-side profit-splitting factor.¹² The country-by-country reports already include a column for headcount, but that is only a partial measure of supply-side people functions as it provides a quantity metric that

¹² Stepanyan and Felgran, "People Functions Redux," *supra* note 3.

does not reflect the financial value of employees to a company. By contrast, employee compensation, under a sufficiently broad definition that recognizes the total amount paid to employees (including wages, salaries, commissions, benefits, incentive compensation, and in-kind payments), is a much more comprehensive measure of people functions because it reflects both the quantity and the price of those functions.¹³

Employee compensation is a strong profit-splitting factor because a direct relationship exists between compensation and company operations. Employee compensation is a key metric within an MNE's own internal performance measurement process used to identify the sources of value and the locations where value is created. In particular, when management decides the annual all-in compensation for employees, it looks at which business units generate how much profit, and whether they can keep employee compensation levels in line with market levels. The managerial transfer prices determine each business unit's profitability, which in turn determines the compensation paid to employees. This managerial decision-making around maximizing profit is its own exercise and takes place separate from consideration of tax planning and reporting (as if income were tax free).

If a business unit within an MNE were to set its managerial transfer prices incorrectly, it would be unable to set a competitive level of pay for its employees (either underpaying or overpaying them). Any distortion to employee compensation caused by managerial transfer pricing would be short-lived given the MNE's need to set competitive levels of compensation for its employees. Competitive local labor markets determine employee compensation and companies cannot deviate from market compensation levels for sustained periods of time. Thus, employee compensation is a backstop for managerial transfer prices at a business unit level.

¹³ On February 6, 2020, in regard to the OECD/G-20 inclusive framework, the OECD released "Public Consultation Document: Review of Country-by-Country Reporting (BEPS Action 13)," requesting public comments. In particular, comments are requested regarding possible modifications to the CbC report template in the form of "additional or different information" to be reported in "additional columns." The document lists previously excluded items including data on "total employee expense" (at 46, para. 107) that presumably would be open for reconsideration.

Of course, legal entities are the primary object of observation in transfer pricing, and “functional analysis” is really meant to describe the business unit composition and associated functions performed in any given legal entity. Recognizing that legal entities are composed of business units makes it obvious that employee compensation, aggregated across business units at the legal entity level, captures the value contributed by the legal entity to the internal value chain within an MNE.

Data on total compensation paid to employees and calculated in the aggregate by legal entity are available from companies’ HR departments.¹⁴ The analyst performing a supply-side profit allocation using employee compensation would need to produce relative shares of employee compensation at the legal entity level in each tax jurisdiction. These relative shares would be applied to the pertinent portion of the MNE’s global profit — that is, that portion allocated to the production-supply countries — to produce the supply-side profit allocation by tax jurisdiction.

We note that unlike profit splits based on intangibles ownership, a supply-side profit allocation based on the compensation and tax residences of employees does not leave open potential avenues for large-scale tax avoidance. For example, the tax avoidance strategy of placing hard-to-value intangibles on the books of a tax haven cash box entity devoid of economic substance (that is, people) would be a non-starter. Moreover, any tax avoidance strategy based on separating payer-entity locations from locations where employees reside would fail as long as tax residency rules are homogenous. Manipulation of payer-entity locations would be kept in check by comparing such locations with the countries of employees’ tax residence. It is the latter that should determine the location of taxable income on the supply side.

Profit Split Between Demand and Supply Sides

We have discussed above an objective and verifiable framework for allocating profit among

¹⁴ It is aggregate and not individual compensation that is required for this exercise. Therefore, any privacy-based criticisms of the proposed profit split are unfounded.

the market-demand countries and among the production-supply countries. A significant outstanding issue concerns the macro allocation between the two sides — that is, the reallocation of some profit to the market countries.

We believe the split should not be fixed but should depend on each controlled group’s facts and circumstances. For example, it seems apparent that the more market-demand countries there are relative to production-supply countries, the greater should be the profit share allocated across the board to the market-demand side — that is, market countries that exceed some revenue threshold. A controlled group situation with two countries that host both producers and consumers is materially different from one with four producer countries and 40 market countries. We note that some or many supply countries will also be demand countries, and other countries might be one or the other; our formulation is consistent with all fact patterns.

One cautionary note is that the profit apportionment framework must be applied equally across the board for each multinational. Any ability to alter the agreed split by individual tax jurisdictions would create distortions because some might choose, for example, to lower the weight on employee compensation in order to lure tax-sensitive jobs to their countries.

As a starting point for the macro allocation, we find the idea of a rebuttable presumption to have value, especially if it is grounded in objective and verifiable company data. We propose that consideration be given to an allocation between supply and demand based on employee compensation relative to revenue, in effect creating a closed loop to the framework discussed above. More specifically, the ratio’s numerator would be the MNE’s overall total employee compensation. The ratio’s denominator would be the MNE’s overall user and customer revenue. That ratio would produce a percentage allocation for the overall production-supply side, and the remainder would be allocated to the market-demand side.

We would be remiss if we did not mention the possible effects of automation and artificial intelligence on overall total employee compensation and thus on the ratio itself and the macro allocation. Should an MNE’s overall total

employee compensation be reduced because of, for example, increased use of robotics, a failure to adjust this formula would give undue weight to the market-demand side and unfairly penalize the production-supply side.¹⁵ Thus, the dynamic nature of not just digitalization but also automation and AI must be ever present in consideration of the company data used to formulate the macro allocation.

Putting labor-reducing automation aside, we note that both the numerator and the denominator in our ratio are, in effect, set by the marketplace and are thus outside the company's control. For this reason, we can say that this framework's macro allocation is grounded in transactional market data, in addition to being objective and verifiable, as are the profit allocations among the sets of market-demand and production-supply countries.

As a technical note, if user and customer revenue and employee compensation were adopted as profit-splitting factors, we strongly recommend expressing their levels in purchasing-power-parity (PPP) adjusted "international dollars" to accurately capture value specific to a given location within an MNE. The same is true for the macro allocation between the supply and demand sides.¹⁶

The text box below summarizes the proposed approach for an MNE operating in two countries.

The key determinants of the ultimate profit split will be the number of legal entities on the supply side, the total employee compensation at each legal entity and its relative share, the number of legal entities on the demand side, any additional market countries that are not legal entities, and the revenue at each demand-side location and its relative share.

¹⁵ See Daron Acemoglu and Pascual Restrepo, "The Race Between Man and Machine: Implications of Technology for Growth, Factor Shares, and Employment," 108 *Am. Econ. Rev.* 1488-1542 (2018); and Acemoglu and Restrepo, "Automation and New Tasks: How Technology Displaces and Reinstates Labor," 33 *J. Econ. Persp.* 3-30 (2019), for a discussion of how automation can displace labor performing some tasks and lead to a decrease in wages and at the same time increase the share of labor in new tasks enabled by automation.

¹⁶ See S. Bournot, F. Koechlin, and P. Schreyer, "2008 Benchmark PPPs: Measurement and Uses," OECD Statistics Brief No. 17 (2011), for a discussion of the importance of PPP for meaningful cross-country comparisons of economic data.

Step 1: Use the relative ratio of the MNE's total worldwide employee compensation to total worldwide user and customer revenue to split global profits between supply-side and demand-side shares.

Step 2: Allocate global profits between the legal entities, LE 1 and LE 2.

Step 2a: Use the relative ratio of LE 1 aggregate employee compensation to LE 2 aggregate employee compensation to split the supply-side share of global profits (calculated in step 1) between LE 1's jurisdiction and LE 2's jurisdiction.

Step 2b: Use the relative ratio of LE 1 aggregate user and customer revenue to LE 2 aggregate user and customer revenue to split the demand-side share of global profits (calculated in step 1) between LE 1's jurisdiction and LE 2's jurisdiction.

Step 3: Combine LE 1's shares of global profits from its demand-side and supply-side allocations to determine LE 1's overall share of global profits. Similarly, combine LE 2's shares of global profits from its demand-side and supply-side allocations to determine LE 2's overall share of global profits.

Example: Combined Demand and Supply

To demonstrate our proposed framework in full, assume as in the above text box that an MNE is composed of two legal entities, each one operating in a different country. Assume further that each country plays host to part of the MNE's production-supply operations and that the two countries together are home to its entire user and customer base, each having passed some materiality threshold for both production and revenue. Assume that the MNE's global revenue is \$10,000, its global costs are \$9,000 of which employee compensation is \$6,000, and its global profits are \$1,000. The ratio of the MNE's employee compensation of \$6,000 to its global revenues of \$10,000 is 3 to 5. Then the macro allocation between supply and demand would require the MNE's global profits of \$1,000 to be split three-fifths or \$600 to the production-supply side and two-fifths or \$400 to the market-demand side.

Turning first to the production-supply side, if employee compensation is \$2,760 at LE 1 and \$3,240 at LE 2, LE 1's share of employee compensation of \$6,000 would be 46 percent and LE 2's share would be 54 percent. In our framework, these employee compensation ratios

are applied to the MNE's global profit supply-side allocation. Consequently, of the \$600 in profit allocated to the production-supply side, LE 1 would be entitled to 46 percent of \$600, or \$276, and LE 2 would be entitled to 54 percent of \$600, or \$324.

Turning next to the market-demand side, the respective shares of the MNE's global profit demand-side allocation to which LE 1 and LE 2 are each entitled are calculated as the entity revenue relative to global revenue. If it is determined based on revenue data that LE 1 and LE 2 generate, respectively, 65 percent and 35 percent of global revenues, of the \$400 in profit allocated to the market-demand side, LE 1 would be entitled to 65 percent of \$400, or \$260, and LE 2 would be entitled to 35 percent of \$400, or \$140.

Combining the supply-side and demand-side profitability figures, LE 1 would receive \$276 plus \$260, or \$536 in total, and LE 2 would receive \$324 plus \$140, or \$464 in total, for a grand total that equals global profits of \$1,000. In percentage terms, the profit allocations to LE 1 and LE 2 are 53.6 percent and 46.4 percent, respectively. In this example, the fact that the lower-value production country was a substantially higher-value consumption country, and vice versa, worked to almost reverse the outcome based on the assumed compensation metrics alone.

Conclusion

We believe that the efforts to allocate some share of MNE profit to market countries for the purpose of income taxation require a full reconsideration of the factors or attributes that cause value to be created by group entities operating and transacting in various tax jurisdictions. We believe that value creation goes well beyond intellectual property and resides more appropriately with people as owners/producers/employees and as users and customers.

People create and maintain intangibles and otherwise contribute to an MNE's value both in production-supply countries, where people are engaged in labor, and in market-demand countries, where people are engaged in use and consumption. Using these people functions concepts with a focus on where people are located, we have developed an approach to profit

allocation that can serve as a guiding principle for the measurement of value among MNE group entities across multiple tax jurisdictions. In our approach, we call for the allocation of global profit in total, rather than profit bifurcated by so-called routine and non-routine activities, and propose global profit allocation in accordance with people's contributions to value in the country where the contribution takes place.

In particular, profit allocation for tax purposes can be performed in a manner that is consistent with economic substance and value creation, fair and equitable, and practical to implement if it is based on (1) employees' contributions to value measured by employee compensation by residence location and (2) users' and customers' contributions to value measured by user and customer revenue by market country. Both the production-supply and market-demand sides can be measured using the MNE's actual and verifiable financial and market data to produce profit-splitting factors capable of properly calculating and rewarding value.

To appropriately reward MNE activities in market-demand countries, we would rely on user and customer revenue measured in total and aggregated by tax jurisdiction. User and customer revenue is a strong, objective metric that captures external performance and dominates number of users and other potential demand-side metrics for weighting the allocation among market countries. User and customer revenue data can be traced to country of user and should be available from MNEs, including those distributing via third parties. An alternative or supplementary measure for MNEs that provide digital goods and services would be data usage, specifically the measurement of transaction volumes in terms of data transmission measured in gigabytes broken out by company and jurisdiction.

To appropriately reward MNE activities in production-supply countries, we would rely on employee compensation measured in total and aggregated by tax jurisdiction. Employee compensation is a natural and objective measure of the value of an entity in the MNE's value chain because it flows out of actual company practices and is untouched by potential tax avoidance. Data on aggregate employee compensation by legal entity are available in any MNE's HR organization

along with headcount. Employee compensation is a richer statistic than headcount because it is a comprehensive measurement of quantity and price and thus the value of employees to the company. The CbC reports, which now include headcount, could be expanded to include aggregate employee compensation.

We propose for a starting point the use of a rebuttable presumption for the macro allocation between production-supply and market-demand countries in the form of a percentage allocation, specifically the ratio of the MNE's overall total employee compensation to the MNE's overall user and customer revenue. This adds internal consistency to the entire framework and supports the goal of achieving reliable results grounded in actual operations and not subject to manipulation. We note that every allocation in the framework — that is, the allocation among the production-supply countries and among the market-demand countries, as well as the presumptive macro allocation — is based on objective and verifiable data.

We disagree with the OECD's wish to "materially limit the disruption of the conventional transfer pricing that is applied to routine activities" and believe, to the contrary, that disruption is in order regarding all transfer pricing activities. Expanding the scope of the OECD project will not add complexity but, if done correctly, will do just the opposite. A new framework is needed to produce the kind of principled but simplified approach that taxpayers and tax authorities want and need. Simplification and transparency will also go a long way toward the avoidance of double taxation and double nontaxation. Our proposed framework entails a few simplifying conventions, which is intentional for the purpose of administrability, transparency, and certainty.

We believe that these conventions can be successfully implemented only if there exists a principled and practical framework that uses objective and verifiable data. Our framework, built on the people-functions-centric view of economic substance and on the use of companies' own operating and marketplace-tested data, is one that could be embraced by both developed and developing countries alike, and by those who might otherwise feel that the proposals on the

table veer toward one side or the other, or are insufficiently supportive of the arm's-length standard. Formulaic rules may present the best path forward for international tax reform and enable compromise among countries and between countries and MNEs — if the reform is built on a holistic supply-demand framework with objective rules consistent with the recognition of economic substance and value creation. ■