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A Tough Call? Comparing Tax Revenues to Be Raised by Developing Countries from the Amount A and the UN Model Treaty Article 12B Regimes

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SOUTH CENTRE

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SOUTH CENTRE

In August 1995, the South Centre was established as a permanent intergovernmental organization. It is composed of and accountable to developing country Member States. It conducts policy-oriented research on key policy development issues and supports developing countries to effectively participate in international negotiating processes that are relevant to the achievement of the Sustainable Development Goals (SDGs). The Centre also provides technical assistance and capacity building in areas covered by its work program. On the understanding that achieving the SDGs, particularly poverty eradication, requires national policies and an international regime that supports and does not undermine development efforts, the Centre promotes the unity of the South while recognizing the diversity of national interests and priorities.

NOTE

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ABSTRACT

In this research paper, we attempt to estimate the tax revenues to be gained (or lost) by the South Centre and African Union's Member States under the Amount A and Article 12B regimes. Our analysis relied on sources of information available to private sector researchers but did not involve review of any information that taxpayers provide to tax authorities. Our research demonstrates that the comparative revenue effects of the Amount A and Article 12B taxation regimes largely depend on (a) design details of the Article 12B regime, (b) whether the country hosts headquarters of MNEs that may be in scope of Amount A or Article 12B taxation, and (c) what relief from double taxation, if any, the country will grant to domestic taxpayers subject to taxation under either the Amount A or Article 12B regimes.

Le présent document de recherche se propose d'estimer le montant des recettes fiscales qui seraient engrangé (ou perdu) par les pays membres du Centre Sud et de l'Union africaine dans le cadre de la mise en œuvre du Montant A et de l'Article 12B. Notre analyse s'appuie sur des sources d'information accessibles aux chercheurs du secteur privé et non sur les informations communiquées par les contribuables aux autorités fiscales. Elle démontre que les effets comparatifs sur les recettes de la mise en œuvre du Montant A et de l'article 12B dépendent en grande partie (a) des détails de conception du régime mis en place par l'article 12B, (b) du fait que le pays accueille ou non le siège d'entreprises multinationales susceptibles d'être imposées au titre du montant A ou de l'article 12B, et (c) de l'allégement éventuel de la double imposition qui sera accordé par le pays aux contribuables nationaux imposés au titre du Montant A ou de l'article 12B.

En este documento de investigación, pretendemos calcular los ingresos tributarios que obtendrán (o perderán) los Estados miembros del South Centre y la Unión Africana con arreglo a los regímenes del Importe A y del Artículo 12B. En nuestro análisis hemos recurrido a fuentes de información disponibles para el personal investigador del sector privado, aunque no ha conllevado el examen de ninguno de los datos que los contribuyentes proporcionan a las autoridades fiscales. Nuestra investigación demuestra que los efectos comparativos en los ingresos obtenidos con los regímenes fiscales del Importe A y el Artículo 12B dependen en gran medida de a) los detalles de diseño del régimen del Artículo 12B; b) si el país es sede de empresas multinacionales que puedan estar dentro del ámbito de aplicación de los regímenes fiscales del Importe A o del Artículo 12B; y c) la desgravación a partir de la doble tributación, de haberla, que conceda el país a los contribuyentes nacionales sujetos al pago de tributos en virtud del régimen del Importe A o del Artículo 12B.

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I. EXECUTIVE SUMMARY

This study was commissioned by the South Centre, an intergovernmental organization of developing countries comprising 54 members, and the Coalition for Dialogue on Africa (CoDA). The South Centre and CoDA's objective for this study is to help Member States of the South Centre and the African Union ("Member States") make informed decisions on whether to accede to the Two Pillar Solution developed by the Inclusive Framework on Base Erosion and Profit Shifting ("IF") or to pursue alternative policy measures such as taxation of income from automated digital services under the framework of Article 12B of the United Nations Model Double Taxation Convention ("UN Model Treaty"). To inform the decision-making process by the Member States, the South Centre and CoDA have disseminated a call for papers with one paper being a study that compares estimated revenue gains or losses from the Amount A and Article 12B regimes (on both gross and net basis) for the Member States. This paper describes such a study, which was undertaken by its authors during February and March 2022.

To arrive at the estimates of tax revenues to be gained by Member States under the Amount A regime, we started by selecting Multinational Enterprises (MNEs) that would be in scope of Amount A using a sales threshold of 20 billion euros and ratio of profit before tax ("PBT") to sales of above 10 percent. We then modeled the effect of including additional MNEs in scope of Amount A if the sales threshold were lowered to 10 billion euros, as is meant to happen after seven years of Amount A coming into effect as per the 8 October 2021 agreement, to examine the marginal impact on the revenues under the Amount A regime. We determined the residual profits that would be reallocated to Member States using the assumptions consistent with revenue-sourcing and nexus rules under Amount A. In determining the net tax base, we considered a full relief from double taxation for Member States that host MNEs in the scope of Amount A. In the final step, we arrived at the tax revenues under Amount A by applying the corporate income tax rate of Member States to the profit allocated to each Member State.

On the other hand, the ultimate scope and design of Article 12B are subject to negotiation between the treaty partners. As such, we applied different parameters to compute the results under this method. We focused on a group of companies that engage in "pure" automated digital services ("ADS") and hybrid ADS businesses with a minimum sales threshold of 750 million euros and positive pretax income. This was done to keep the study manageable, as Article 12B does not have any sales thresholds. Under the gross method, we applied tax rates of 3% and 4% to revenues sourced from Member States[2]. Under the net method, the qualified profits associated with the revenues sourced from Member States were used as the tax base. We considered a full relief from double taxation for Member States that host companies subject to Article 12B.

For each Member State, we computed two scenarios under the Amount A regime by using the sales thresholds of 20 billion and 10 billion euros. We provided a range of tax revenue estimates under Article 12B, with the lower amount determined by taking only "pure" ADS companies into account, and the higher amount determined by including companies that engage in hybrid ADS functions. Additionally, we modeled two scenarios under the gross

[2] Paragraph 2 of Article 12B leaves the tax rate to be applied under the gross method open to negotiation between the parties to a treaty, however the UN Tax Committee made a commentary to this paragraph containing a suggestion to set the rate at a level of 3 or 4 percent. UN Tax Committee, "Editorial Changes to 12B and Commentary". Available from https://www.un.org/development/desa/financing/sites/www.un.org.development.desa.financing/files/2021-09/Article%2012B%20and%20Commentary%20after%2022nd%20Session%20Meetings%2029%20April%202021.pdf (accessed 20/05/2021).

method by using tax rates of 3% and 4%. Separate results were generated for the gross and net method on the premise that companies in scope of Article 12B are free to choose either method. We also discussed key assumptions and limitations of our methodology.

A comparison between tax revenues under the Amount A and Article 12B taxation regimes indicates that, in general, a “narrow” design of the Article 12B method that combines “pure” ADS companies, a low tax rate under the gross method (i.e., of 3%), and an unrestricted election of the net method by taxpayers may not guarantee tax benefits significant enough for Member States to prefer Article 12B over Amount A. Nevertheless, selecting other parameters of the Article 12B design may lead to a different conclusion. Such a combination of parameters may include, for example, a broader scope that covers companies that engage in both “pure” and hybrid ADS functions, a higher tax rate under the gross method, and a restricted use of the net method. For Member States that host MNEs in scope of Amount A or Article 12B, one must also consider domestic MNEs’ portion of foreign sourced revenues and the amount of relief from double taxation when choosing between the Amount A and Article 12B regimes.

Our paper is organized into the following four sections: Section I provides an executive summary; Section II introduces and provides a review for the developments in Amount A of Pillar One and Article 12B taxation regimes; Section III computes and compares the tax revenues under both regimes for the group of South Centre and African Union Member States; and Section IV summarizes and concludes our analysis.

II. WHAT ARE AMOUNT A AND ARTICLE 12B REGIMES OF TAXATION?

The current design of the Amount A tax regime may be viewed as a product of a marathon effort that began as one of the items on the Base Erosion Profit Shifting ("BEPS") Action Plan in 2013 focused on tax challenges arising from digitalization of the economy. This effort culminated with a framework agreement on the Two Pillar Approach reached by the majority of the members of the IF by the middle of 2021. While many design parameters of the Two Pillar solution have been agreed on, some other details of this approach continue to be a work in progress as of this time. During almost a decade-long time span, the design of the tax solution for digitalization of the economy has undergone dramatic revisions, and was shaped by competing considerations of economics, simplicity, administrability, and ability to achieve a consensus by a broad group of stakeholders. In its current shape, Pillar One is focused on allocation of profits earned by large and profitable MNEs[3] to end user or "market jurisdictions" by means of a method known as "Amount A."

Recently, an alternative solution to tax challenges related to digitalization of the economy has emerged in the form of Article 12B included in the 2021 version of the UN Model Treaty. Unlike the Pillar One, Article 12B retains the focus on taxing only automated digital services. Since Article 12B is envisioned as a part of a bilateral tax convention, its adoption and final design details are open to negotiations on bilateral basis between treaty partners. At the same time, the bilateral framework in which Article 12B can be enacted may hamper its wide adoption as the Two Pillar solution, by contrast, is designed to be adopted through a process of countries joining a multilateral convention. The discussion in the remainder of this section provides an abbreviated history of development of both the Amount A and Article 12B solutions.

1. The Evolution of Amount A

The First Steps

The multinational effort that in 2021 culminated with an agreement on a two pillar solution to address tax challenges arising from the digitalization of the economy started in early 2013 with the release of the document titled *Addressing Base Erosion and Profit Shifting* prepared by the Organisation for Economic Co-operation and Development (OECD) Committee on Fiscal Affairs ("CFA") (OECD, 2013A). Among several factors that generate perceived BEPS outcomes, the report noted that developments in the digital economy may enable certain taxpayers to conduct cross-border business without having a taxable presence in the market countries. The magnitude of BEPS related to digitalization was perceived to be of such importance that addressing tax challenges of the digital economy has earned a first place among the 15 points of the July 2013 Action Plan on BEPS (OECD, 2013B).

The 2014 Interim Report on Action 1

Pursuant to the BEPS Action Plan, a dedicated Task Force on the Digital Economy (TFDE) was established in September 2013 as a subsidiary body of the CFA. After requesting public input, TFDE delivered its first interim report in September 2014 (OECD, 2014). That 2014 report acknowledged that the digital economy is the result of underlying technological changes brought about by information and communication technology (ICT), which, among other things, enabled businesses to reach many more customers, conduct

[3] The Amount A regime under Pillar One excludes MNEs in extractive and regulated financial services industries.

many types of activities at substantially greater scale and operate over longer distances than was previously possible. The report also recognized that "because the digital economy is increasingly becoming the economy itself, it would be difficult, if not impossible, to ring-fence the digital economy from the rest of the economy for tax purposes" (OECD, 2014). It is likely that this sentiment led TFDE to devote a substantial part of its work to pointing to other items of the BEPS Action Plan that were expected to address the perceived profit shifting in the digital economy. The 2014 report also stated that the "digital economy does not generate unique BEPS issues," although some of the key features of digital business models "exacerbate BEPS risks." Listed among these features were mobility of intangibles, users, and business functions, reliance of digital businesses on data, network effects, multi-sided business models, tendency toward monopoly or oligopoly in certain business models, and low barriers to entry into some markets. These features of digital business models were said to allow digital companies to centralize their infrastructure, conduct substantial volumes of sales of goods and services into a given market from a remote location, and minimize the use of personnel for some of the business activities.

The 2015 Final Report on Action 1

In November 2015, the Final Reports on most of the BEPS Action Plan items were released (OECD, 2015), including the one on the digital economy. The 2015 Action 1 report reiterated the prior TFDE position that certain BEPS risks associated with the digital economy are not unique to digital business models and, as such, they should be addressed in other BEPS Plan deliverables. These action points included (i) revised definition of a permanent establishment ("PE"), (ii) alignment of profits earned in different jurisdictions with DEMPE activities[4] performed in them, and (iii) design of effective CFC[5] rules to ensure that income from CFC becomes subject to taxation in the jurisdiction of the ultimate parent company.

The 2015 Action 1 report separately recognized the BEPS risks that are specific to digital business models. Those were related to the possibility of doing business without establishing physical nexus in a jurisdiction, remote collection of large amounts of user data, and conducting types of transactions that challenge their characterization for direct tax purposes.

In the 2015 report, TFDE has considered several possible options to address the challenges that arise from digital business models including *(i)* a new nexus in the form of a significant economic presence, *(ii)* a withholding tax on certain types of digital transactions, and *(iii)* an equalization levy. Ultimately, however, none of these measures were recommended for implementation. This conclusion was grounded in the expectation that other BEPS actions will substantially alleviate the BEPS challenges in the digital economy and an anticipation that market countries will levy consumption taxes that will effectively address the BEPS issues specific to digital businesses. At the same time, the 2015 report pronounced that countries could unilaterally introduce any of the three options discussed above in their domestic laws (i.e., modified nexus, withholding taxes, and equalization levies) as additional safeguards against BEPS.

The 2018 Interim Report

The TFDE was reconvened in 2017, upon a request made by the Group of Twenty (G20) Finance Ministers, with a mission to deliver an interim report on the implications of the digital economy for taxation by 2018. Public input for this work was requested in September 2017,

[4] "DEMPE" stands for "development, enhancement, maintenance, protection, and exploitation". According to the OECD *Transfer Pricing Guidelines*, analysis of DEMPE activities should be performed to determine an economic ownership of income from intangible assets.

[5] "CFC" stands for "controlled foreign company".

and the interim report was released in March 2018 (OECD, 2018). By that time, the BEPS issues were discussed by a much broader group of countries and jurisdictions called the Inclusive Framework on BEPS (IF) which, in 2018, comprised more than 100 members. As a consequence, any agreement would require consensus among a broad group of countries. Reaching consensus, evidently, was not an easy task, as the 2018 Interim Report acknowledged differences in views among the country delegates that emerged. One area of disagreement was related to the views on whether and to what extent collection of user data by digital businesses and user participation in digital business models contribute to value creation. Perhaps, in order to inform this discussion, the 2018 report presents a remarkably in-depth review of the value creation process in digital businesses and classification of digital business models among three different categories.

Although the 2018 report stated that the members of the IF are committed to arrive at a consensus-based, global solution on the matters of taxing the digital economy, it recognized that achieving such consensus will take time. The report acknowledged that, in the interim, some countries desire to take unilateral steps to tax the types of digital transaction that have their jurisdictions as a destination. In view of that, the report provided considerations for designing such "interim measures." Among these considerations are compliance with existing international obligations and tax treaties, compliance with membership requirements in international trade organizations, and the list of transaction types that should be targeted by the "interim measures."

The 2019 Public Consultation Document

In February 2019, a Public Consultation document was released on behalf of the IF (OECD, 2019A), which identified two interrelated challenges stemming from the 2018 Interim Report. These two groups of challenges were referred to as "two pillars" in a brief Policy Note issued approximately a month earlier (OECD, 2019B). One of these challenges had to do with the allocation of taxing rights, specifically, modifications to the rules on profit allocation and nexus, and the other challenge focused on yet-unresolved BEPS issues. The report outlined three different proposals to address the issue of taxing rights modification: the "user participation" proposal, the "marketing intangibles" proposal, and the "significant economic presence" proposal, all of which would require changes to nexus and profit allocation rules.

As certain members of the IF held a view that the BEPS measures did not yet provide a comprehensive solution to the risks arising from arrangements that shift profit to entities subject to no or very low taxation, the "Global Anti-BEPS" proposal was also included in the Public Consultation document. The document stated that the risk of "undertaxed" income is particularly acute in connection with profits relating to intangibles prevalent in the digital economy, but also in a broader context related to other types of transactions. The "Global Anti-BEPS proposal," effectively, was a provision to give jurisdictions the right to "tax back" profits that are taxed only at low effective tax rates.

The 2019 "Programme of Work" and a "Unified Approach"

The 2019 Public Consultation document gathered comments from more than 200 stakeholders. At public hearings in March 2019 more than 300 attendees were present. In just a few short months afterward (June 2019), the IF released a "*Programme of Work to Develop a Consensus Solution to the Tax Challenges Arising from the Digitalisation of the Economy*" (OECD, 2019C). Acceleration of the efforts has been prompted by the concerns of the drafters that unless a consensus solution is delivered by 2020, as has been agreed by the G20 member countries, unilateral taxation measures which may be implemented by various jurisdictions will significantly increase compliance burdens, double taxation, and uncertainty. The "Programme of Work" presented a roadmap to developing a single solution for both "pillars" and assessing the impact of a possible solution design. The Steering Group of the IF was said to begin "playing a key role" to advance the work under this proposal and develop documents for consideration by the IF.

In October 2019, a document titled "*Secretariat Proposal for a "Unified Approach" under Pillar One*" (OECD, 2019D) was released for public consultation. As the title implies, this document was prepared by the Secretariat and did not necessarily represent the consensus views of the IF members at the time. The "Unified Approach" comprised a three-tier method of profit allocation to market jurisdictions (named "Amounts A, B, and C"). The scope of the approach covered consumer-facing businesses in a broad sense with only extractive industries being out of scope and future possible industry carve-outs to be defined. For businesses within the scope, this approach created a new nexus, not dependent on physical presence but largely based on sales. The new nexus could be calibrated to ensure that jurisdictions with smaller economies can benefit. The profit allocation rule would be applied to taxpayers irrespective of whether they have an in-country marketing or distribution presence or sell via unrelated distributors. At the same time, Amounts B and C, although formula-based, would be calculated with reference to the transfer pricing rules based on the arm's length principle. Amount A, in turn, was defined as a proportion of a residual profit of an MNE (or a business line of the MNE) that would be allocated to market jurisdictions that meet the new nexus rule through a formula based on sales. The residual profit itself would be computed after allocating a deemed routine profit to the countries where activities of the MNE are performed. Consensus of the IF members would be required to determine the parameters to be used in the Amount A formula. It was explicitly recognized that the new profit allocation rules "go beyond" the arm's length principle and "beyond the limitations" on taxing rights determined by reference to a physical presence.

In response to the "Unified Approach" proposal, the Secretariat received more than 300 comment letters covering both technical and policy aspects of the proposal. Stakeholders also expressed their views at the November Public Consultation meetings which were attended by more than 500 representatives from governments, business, civil society, and academia. Separately, the United States Treasury articulated its position in a December letter from the Treasury Secretary to the OECD Secretary-General. While reiterating the U.S. political support for a multilateral solution, this letter included a proposal to implement Pillar One on a "safe harbor" basis which would mean that MNEs could opt-in to be subject to Pillar One taxation rather than being required to adopt this regime.[6]

The 2020 IF Statement

Transfer pricing practitioners have 2020 to remember for something other than the COVID-19 pandemic. That year, OECD released as many as three documents bearing a significant impact on the design of Amount A under Pillar One.

In January 2020, a Statement of IF on the Two Pillar Approach came out (OECD, 2020A). This document contained an outline of the architecture of the "Unified Approach" to Pillar One and noted the main points that remain to be negotiated or developed on a technical side. Some of the key points related to Amount A in this document pertained to the scope of Amount A, method of calculating Amount A, the minimal nexus for the Amount A eligibility, and the nature of mechanisms for eliminating double taxation, preventing and resolving disputes.

With respect to the scope, it was envisioned that Amount A would apply to Automated digital services (ADS) and Consumer-facing businesses ("CFB"). Extractive businesses and business-to-business (B2B) financial institutions were excluded from scope of Amount A as

[6] See https://www.orbitax.com/news/archive.php/U.S.-Treasury-Secretary-Sends--40283.

not consumer-facing. The document, however, left the door open for inclusion of less-regulated financial services providers such as digital peer-to-peer lending platforms. For ADS and CFB businesses with significant out-of-scope activities, segmentation along the lines of business was proposed.

Amount A was proposed to apply to “large MNE groups” with the inclusion threshold set at consolidated group revenue of 750 million euros or above. A carve-out was proposed for large, domestically focused business with a minimal level of foreign income. The document also proposed to set a minimum revenue threshold for nexus.

The 2020 Economic Impact Assessment

In October 2020, the OECD released an Economic Impact Assessment (“EIA”) prepared as part of the 2019 Programme of Work (OECD, 2020B). The EIA focused on the impact of Amount A under Pillar One and the impact of Pillar Two on tax revenues for the IF member countries.

While detailed results of the EIA study were shared with the IF members on a confidential basis, the EIA report itself presented the estimates of the Amount A impact only in aggregate terms and in terms of relative gains or losses in corporate income tax (CIT) for four groups of countries (High Income, Middle Income, Low Income, and Investment Hubs).

According to the EIA, if the scope of Amount A included only ADS and CFB businesses with revenue of at least 750 million euros, profitability of at least 10%, and a residual profit reallocation percentage of 20% was applied, the estimated total residual profit would be approximately 500 billion U.S. dollars, which would generate the total new taxing rights over approximately 100 billion U.S. dollars to be reallocated to market jurisdictions. The total gains in tax revenue from the Pillar One regime were estimated to be between 5 and 12 billion U.S. dollars under the above scenario, assuming additionally an application of separate nexus thresholds for ADS and CFB set at 1 million and 3 million euros, respectively.

Perhaps, not surprisingly, the High-, Medium-, and Low-Income countries were expected to gain CIT revenue, while Investment hubs were expected to cede CIT. Revenue gains were greater for jurisdictions with higher statutory CIT rates, while jurisdictions with lower CIT rates were expected to lose revenue from Amount A.

Significantly greater revenue gains were estimated from Pillar Two, however.

The 2020 Pillar One Blueprint

In October 2020, a Pillar One Blueprint was released by IF (OECD, 2020C), along with a Blueprint for Pillar Two and questions for public comments. The Blueprint for Pillar One was drafted in a form of a proposal with final details to be negotiated further, and it presented a rather elaborate set of rules and choices for the IF to agree upon and finalize along with more definitive pronouncements on certain issues.

As before, Amount A was envisioned to encompass both ADS and CFB businesses, although precise definition of these activities was yet to be agreed upon. For instance, a proposal for ADS businesses included “negative” and “positive” lists of activities. The definition of CFB activities included sales, leases, licenses, rent or delivery of goods or services to consumers, whether directly or indirectly (through intermediaries such as distributors and franchisors), and inclusion of pharmaceutical industry was considered as well. The threshold for Amount A application was left at 750 million euros and a carve out for domestically focused companies was present. For businesses that perform both ADS and CFB activities or combine one of those activities with out-of-scope activities, multi-step rules for segmentation were described. Although profitability threshold for Amount A application and the percent of residual profits to be reallocated to market jurisdictions were not defined, the report presented tables that related different values for those two metrics with the amount of global residual profit allocable to market jurisdictions and the number of companies that would be subject to Amount A.

The tax base for the purpose of Amount A would be quantified using profit before tax (PBT) derived from the consolidated financial accounts of in-scope MNE groups and adjusted to exclude certain income and expenses that are normally not deductible or includible for corporate income tax purposes (e.g., income tax expenses, dividend income, etc.). Losses would not be allocated to market jurisdictions, but loss carryforward was allowed. The rules proposed for nexus and revenue sourcing contained multiple hierarchical steps that were differentiated between ADS and CFB businesses and would apply differently to countries with different levels of gross domestic product (GDP). A proposed method to eliminate double taxation from Amount A consisted of two steps: first to identify which entity or entities within an MNE group will bear the Amount A tax liability, and an expectation that jurisdictions in which paying entities reside will relieve double taxation using either the exemption method or the credit method.

The 2021 Drive to Solution

The public consultation on the October 2020 blueprints was held virtually in January 2021. At this meeting, many discussants expressed the need for simplicity, certainty, and sustainability of any solution that will be ultimately designed.

An important development occurred in April 2021, when the U.S. Treasury officials working under the new U.S. administration presented their proposal to the Steering Group of the IF. The presentation signaled that the U.S., which until now advocated an optional status for Pillar One, may be willing to enter into an agreement on both pillars under certain conditions. Many of those conditions were related to modification of the Pillar One design. The U.S. proposal argued that limiting the scope of Amount A to just ADS and CFB activities lacked “clearly defined policy objectives” and that it was difficult to distinguish ADS and CFB from the rest of the economy and from each other. As a solution, the U.S. Treasury proposed to include the “largest” and “most profitable” MNE groups into the scope of Amount A and limit the application of Amount A regime to no more than 100 MNEs. The U.S. Treasury argued that limiting total number of MNEs in scope will ease the compliance and administration burdens without materially reducing the amount of residual profit available for reallocation. The proposal left the door open to scope limitation for certain industries, however. The U.S. Treasury proposal signaled acceptance of flexible nexus thresholds to benefit smaller economies, while at the same time expressing strong resentment against business line segmentation. In the area of dispute resolution, a binding, non-optional dispute resolution process was advocated.[7]

On July 1, 2021, a very concise “Statement on a Two-Pillar Solution” was released by the IF (OECD, 2021A). In this document, the scope of Amount A was limited to MNEs with global turnover above 20 billion euros and PBT-to-revenue ratio of greater than 10%. Further reduction of the turnover threshold to 10 billion euros would be considered at a later point contingent on successful implementation of the initial phase. Notably, extractive businesses and regulated financial services were excluded from the scope. For in-scope MNEs, a proportion of residual profit “between 20 and 30 percent” was to be allocated to market jurisdictions while the residual profit was to be defined as profit in excess of 10% of revenue.

[7] See https://news.bloombergtax.com/daily-tax-report-international/u-s-offer-on-global-tax-deal-would-tie-levies-to-revenue.

Nexus would be calculated using a revenue-based allocation key. For larger market jurisdictions, revenue of at least 1 million euros derived from that jurisdiction would establish the nexus. For smaller jurisdictions with GDP lower than 40 billion euros, nexus will be established at revenue levels of over 250,000 euros. Detailed revenue sourcing rules were left to be developed in the future with the premise that revenue will be sourced to the end market jurisdictions where goods or services are used or consumed. In calculation of the relevant tax base, losses were to be carried forward, and segmentation would occur "only in exceptional circumstances" based on the segments disclosed in the financial accounts of MNEs. A "safe harbor" rule would assure that in market jurisdictions where the residual profits of an in-scope MNE are already taxed, the residual profits allocated to that market jurisdiction through Amount A will be capped by profits on marketing and distribution activities. Double taxation of profit allocated to market jurisdictions will be relieved using either the exemption or credit method. The entity (or entities) that will bear the tax liability will be drawn from those that earn residual profit. The IF has committed to finalize the detailed implementation plan by October of 2021.

On October 8, 2021, the IF released an announcement (OECD, 2021B) that 136 member countries of the group have joined the two pillar solution signaling a major political agreement on the two pillar framework design. While much of the October statement reiterates the positions expressed in the July statement, additional agreements reported in this document included finalization at 25% of the proportion of residual profit to be reallocated to market jurisdictions under Amount A and a statement that the MNEs subject to Amount A will be found "using an averaging mechanism" to calculate turnover. In addition, the October statement announced that the minimum tax rate under Pillar Two has been set at 15 percent.

The Current State of Play

As of February 2022, Draft Nexus and Sourcing Rules under Pillar One were released for public consultation that is scheduled to take place in April 2022 (OECD, 2022).

Year 2022 is targeted by the IF as a date for development of a model Multilateral Convention and a multilateral instrument for the implementation of the Two Pillar Solution with the goal to begin implementation of the two pillar solution in 2023.

2. Development of Article 12B

In comparison to the long and storied history of the Amount A design, development of Article 12B of the UN Model Treaty by the Committee of Experts on International Cooperation in Tax Matters ("the Committee") was completed in the twinkling of an eye. In October 2018, the Subcommittee on Tax Issues related to the Digitalization of the Economy ("the Subcommittee") submitted its first report to the Committee discussing its core approach and the way forward (UN, 2018). During the 20th session of the Subcommittee held in the first half of 2020, a Drafting Group of 13 (later 14) experts, all from developing countries, was formed that began to consider an additional provision in the UN Model Treaty to deal with taxation of digitalized economy. The Drafting Group developed a proposal for a new Article 12B titled Income from Automated Digital Services to be included in the UN Model Treaty. A number of Committee members submitted comments on this draft and the Drafting Group replied to these comments. The draft and the comments were discussed during a virtual meeting the Subcommittee held in August 2020. It was decided that the Drafting Group would continue its work and prepare an amended draft taking into account the comments provided by members and observers.[8]

At the 21st Session in October 2020, the Committee held a discussion on the amended draft including the submitted comments and approved inclusion of an Article 12B in the 2021 UN Model Treaty. The Subcommittee further considered the issues surrounding Article 12B at virtual meetings held in December 2020, and February and March 2021. These discussions allowed to further develop the text of the Article and its Commentary. At its 22nd session on April 20, 2021, the Committee voted to approve the amended draft for Article 12B (and its Commentary) for inclusion in the 2021 version of the UN Model Treaty (UN, 2021).

3. Comparison of Amount A and Article 12B

While the tax regimes under both Amount A and Article 12B of the UN Model Treaty are designed to address the alleged misallocation of tax income related to digitalization of the economy, there are few similarities between these methods, other than both of them rely on a formulaic approach and not on the arm's length principle, and both regimes, in principle, promise to provide a relief from double taxation.

The two regimes would apply to groups of taxpayers that may have little overlap. Amount A applies to large and highly profitable taxpayers, specifically taxpayers with consolidated revenues of 20 billion euros or greater and profit before tax to revenue ratio of at least 10 percent engaged in primary activities other than extractive businesses and regulated financial activities. In contrast, Article 12B targets businesses performing automated digital services defined as services delivered over the internet with minimal human involvement. Unlike the Amount A, the design of Article 12B in the UN Model Treaty does not impose a minimum threshold on revenues or profits of taxpayers.

Another difference is in the potential application of the two regimes. Amount A falls into a "one-size-fits-all" category which requires ascent to a method of a specific design by a large group of countries. Domestic implementation, administration, and dispute resolution under Pillar One will require international tax cooperation on a scale never seen before. In contrast, implementation of Amount 12B takes only two countries willing to negotiate a bilateral agreement. This leaves open the possibility that the final design of taxation under Article 12B can be shaped by the negotiating countries, which means that there is more room for each party to shape the agreement in a way that balances costs and benefits for each of them.

One similarity between the Amount A and Article 12B regimes is that both of them create new taxing rights for market jurisdictions. Countries would have to adopt special provisions in their domestic laws that accommodate double tax relief under either Amount A (or Pillar One) or Article 12B, or, perhaps, both.

Both Amount A and Article 12B regimes have advantages and disadvantages apart from the consideration of revenue that may be raised under these regimes. Advantages of the Amount A regime stem from the potential of Pillar One being accepted by most of the countries in the world in which case the administrative burden for the market jurisdictions should be relatively light. Disadvantages of the Pillar One for the market countries are the flip side of this advantage. Given the fact that primary responsibility for compliance will be borne by non-resident taxpayers, tax administration will be performed by foreign governments, and

[8] See https://www.un.org/development/desa/financing/sites/www.un.org.development.desa.financing/files/2020-10/CITCM%2021%20CRP.41_Digitalization%2010102020%20Final.pdf.

dispute resolution addressed by independent panels, market jurisdictions may have little leverage with regards to the amount of tax revenue collected under Amount A, and, indeed, may even encounter difficulties in verifying the proper administration of this regime.

Apart from the revenue considerations, the advantages of Article 12B taxation regime are connected to the potential flexibility of the method design. Countries negotiating the method similar to the one described in Article 12B are likely to consider other benefits of relieving double taxation for trade between them and will likely seek cooperative solutions. Monitoring of compliance and dispute resolution in the context of bilateral treaties are well established procedures. The main disadvantage of this method may be related to the fact that negotiating or re-negotiating tax treaties is a time-consuming process, and ratification of treaties in certain countries (e.g., the U.S.) requires legislative vote, which is not a guaranteed outcome.

Certainly, the implications of both regimes for revenue that may be raised (or lost) under them cannot be ignored in the process of deciding on which regime is preferable. We address the revenue implications of both regimes for the South Centre and African Union Member States in the next section.

III. PRELIMINARY ESTIMATES OF THE TAX EFFECTS OF AMOUNT A AND ARTICLE 12B REGIMES ON THE SOUTH CENTRE AND AFRICAN UNION MEMBER STATES

This section presents the methods we designed to access the revenue implications of Amount A and Article 12B taxation regimes for the South Centre and African Union Member States as well as the general results of our assessment. The results of our analysis have to be interpreted with caution because the information for the analysis was obtained from public and private sector databases (instead of financial and tax filings of taxpayers). The databases provide limited information for some critical inputs used in our analysis (e.g., revenues and profits earned in each geographical jurisdiction by companies) and, to overcome these limitations, we employed certain assumptions and simplifications that may significantly affect our results. We present the key simplifying assumptions and their known impact in Sections III.1.D and III.2.C.

1. Calculation of Tax Revenues Under Amount A

A. Multinational Enterprises in Scope of Amount A (in-scope MNEs)

For this study, we selected the MNEs in scope of Amount A in line with the definitions found in the IF statement of July 1, 2021 (OECD, 2021A) as those that have a period-average global turnover of no less than 20 billion euros and a period-average profitability of above 10 percent (measured by PBT divided by revenue) over the three years from 2018 to 2020, excluding MNEs in extractive and regulated financial services industries. To select publicly traded companies that meet these criteria, a search was performed in the FactSet database[9] using companies' financial data from 2018 to 2020. After removing duplicate companies[10] and companies with 100 percent domestic sales[11], a total of 76 in-scope MNEs were identified.

Table 1 provides the 2020 aggregate sales and PBT (in billions of U.S. dollars) by country for the 76 in-scope MNEs, ranked by 2020 total PBT. There are a total of 14 countries in which in-scope MNEs are headquartered. The worldwide aggregate sales and PBT of the 76 in-scope MNEs are $4.2 trillion and $844 billion in 2020, respectively. U.S. headquartered MNEs represent the largest number of in-scope MNEs (i.e., 37 out of 76 companies), accounting for $2.2 trillion (or 53%) and $452 billion (or 54%) of the worldwide sales and PBT of in-scope MNEs in 2020, respectively. China is the only South Centre Member Country that hosts the parent companies of in-scope MNEs.

[9] The Universal Screening function in the FactSet database allows to compute and identify the list of public companies with a period-average sale above 20 billion euros and a period-average PBT margin above 10% over the three years from 2018 to 2020. Different databases such as the Orbis BvD database or the proprietary data accessible by tax authorities may result in a different set of companies in scope of the Pillar One.

[10] In certain cases, FactSet database shows different stock tickers for the same company. We have reviewed the list of companies to ensure that there are no duplicate companies in the sample used for the analysis.

[11] Five companies were eliminated because 100% of their sales were in their domestic markets. We have taken the view that companies with 100% domestic sales will not be in scope of the Pillar One.

Table 1: Amount A In-Scope MNEs' 2020 Sales and PBT by Country in $USD Billions (Sales Threshold at 20B Euros)

#	Country	Number of In-Scope MNEs	2020 Total Sales	2020 Total PBT
1	United States	37	2,239	452
2	Japan	4	334	77
3	United Kingdom	9	315	60
4	China*	4	241	58
5	Switzerland	3	201	43
6	France	6	203	39
7	South Korea	2	228	36
8	Taiwan, China	1	45	20
9	Germany	3	134	19
10	Australia	1	43	14
11	Ireland	2	74	11
12	Spain	2	61	7
13	Hong Kong, China	1	34	7
14	Belgium	1	47	2
	Total	**76**	**4,201**	**844**

*South Centre Member Country

Table 2 provides the total sales and PBT (in billions of U.S. dollars) as well as average PBT margin by industry for the list of in-scope MNEs as defined by FactSet's Revere Business Industry Classifications System (RBICS) economy indicators.[12] Most of the MNEs that would be in scope of Amount A operate in the following industries: technology, pharmaceutical, consumer non-cyclical goods, and industrials. In particular, the technology industry as represented by 17 in-scope MNEs accounts for the largest share of global sales ($1.4 trillion or 35%) and global PBT ($372 billion or 44%), earning the highest average PBT margin of 26% in 2020.

Table 2: Amount A In-Scope MNEs' 2020 Sales and PBT by Industry in $USD Billion (Sales Threshold at 20B Euros)

		Number of In-Scope MNEs	2020 Total Sales	2020 Total PBT	Average PBT Margin*
1	Technology	17	1,458	372	26%
2	Consumer Non-Cyclicals	14	718	133	19%
3	Pharmaceutical	16	674	125	19%
4	Telecommunications	4	357	80	22%
5	Non-Energy Materials	7	224	49	22%
6	Industrials	10	368	43	12%
7	Consumer Cyclicals	4	251	34	13%
8	Utilities	1	38	6	15%
9	Consumer Services	3	114	3	2%
	Total	**76**	**4,201**	**844**	**20%**

*Average PBT margin by industry is computed as 2020 total PBT divided by 2020 total sales.

[12] We have used the FactSet's default industry classification to categorize the list of in-scope MNEs. However, MNEs are becoming increasingly diversified and can operate across different industries.

In addition, Figure 1 and Figure 2 demonstrate the distribution of in-scope MNEs' three-year average consolidated revenues in billions of euros and profitability as defined by PBT margin (i.e., PBT divided by sales).[13] The average and median of in-scope MNEs' three-year average consolidated revenues were 46.8 billion euros and 35.1 billion euros, respectively. The average and median of in-scope MNEs' three-year average PBT margin were 19.2% and 17.5%.

Figure 1: Distribution of In-Scope MNEs' FY2018 - FY2020 Three-Year Average Consolidated Revenues

(Sales Threshold at 20B Euros)

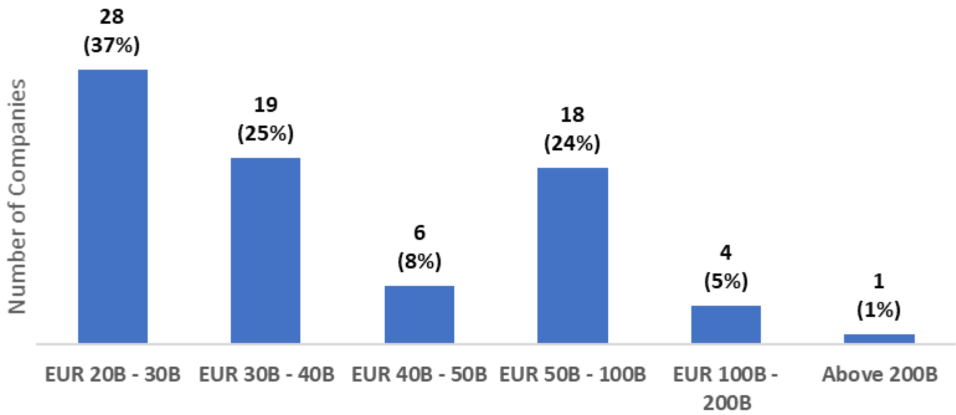
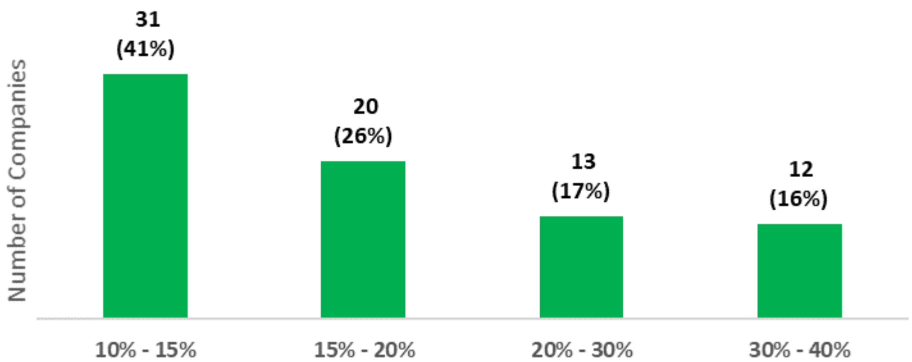


Figure 2: Distribution of In-Scope MNEs' FY2018 – FY2020 Three-Year Average Profitability (PBT Margin)

(Sales Threshold at 20B Euros)



[13] Throughout this analysis, we have used standardized Generally Accepted Accounting Principles (GAAP)/International Financial Reporting Standards (IFRS) financial data of companies as reported by FactSet. Standardized FactSet data may contain restatements of the data originally reported by companies.

B. Lowering the Sales Threshold from 20B Euros to 10B Euros

The OECD IF statement on July 1, 2021 (OECD, 2021A) has implied that the sales threshold for including MNEs in scope of Amount A may be reduced to 10 billion euros in the future, contingent on successful implementation of Pillar One. To assess the marginal impact of lowering the sales threshold for Amount A, we have conducted a search for companies with three-year average consolidated revenues between 10 billion and 20 billion euros and three-year PBT margin above 10 percent during the 2018 – 2020 period. After eliminating duplicate companies and companies that do not have foreign sales, a total of 78 additional MNEs have been identified using the FactSet database. Table 3 provides the aggregate sales and PBT of these 78 MNEs in 2020 by country in billions of U.S. dollars. Table 4 provides the same information for the whole list of 154 MNEs after lowering the sales threshold to 10 billion euros.

Table 3: Amount A In-Scope MNEs' 2020 Sales and PBT by Country in $USD Billions (Sales Between 10B Euros and 20B Euros)

		In-Scope MNEs	2020 Total Sales	2020 Total PBT
1	United States	33	553	103
2	Japan	12	193	31
3	Germany	5	101	14
4	China*	4	80	13
5	India*	2	36	9
6	Denmark	1	19	8
7	United Kingdom	3	55	8
8	Switzerland	4	54	6
9	Ireland	3	43	5
10	Russian Federation	1	16	5
11	Netherlands	1	16	5
12	France	1	15	3
13	Saudi Arabia	1	16	3
14	United Arab Emirates	1	14	3
15	Norway	1	13	3
16	Brazil*	1	11	3
17	Australia	1	16	2
18	Finland	1	56	2
19	Chile	1	12	2
20	Sweden	1	13	2
	Total	**78**	**1,332**	**229**

*South Centre Member Country

Table 4: Amount A In-Scope MNEs' 2020 Sales and PBT by Country in $USD Billions (Sales Threshold at 10B Euros)

	In-Scope MNEs	2020 Total Sales	2020 Total PBT
1 United States	70	2,792	554
2 Japan	16	528	108
3 China*	8	321	71
4 United Kingdom	12	370	67
5 Switzerland	7	254	49
6 France	7	218	43
7 South Korea	2	228	36
8 Germany	8	235	34
9 Taiwan, China	1	45	20
10 Ireland	5	118	16
11 Australia	2	59	16
12 India*	2	36	9
13 Denmark	1	19	8
14 Spain	2	61	7
15 Hong Kong, China	1	34	7
16 Russian Federation	1	16	5
17 Netherlands	1	16	5
18 Saudi Arabia	1	16	3
19 United Arab Emirates	1	14	3
20 Norway	1	13	3
21 Brazil*	1	11	3
22 Belgium	1	47	2
23 Finland	1	56	2
24 Chile	1	12	2
25 Sweden	1	13	2
Total	**154**	**5,532**	**1,073**

*South Centre Member Country

Thus, by lowering the sales threshold from 20 billion to 10 billion euros, the number of MNEs in scope of Amount A regime will approximately double from 76 to 154 companies. The aggregate revenues of in-scope MNEs, as measured by 2020 data, will increase by approximately 32% (from $4.2 trillion to $5.5 trillion) and the total PBT will increase by 27% (from $844 billion to $1.1 trillion), as measured by the 2020 PBT. The list of countries hosting in-scope MNEs will expand, and, in addition to China, two other South Centre Member Countries (India and Brazil) will host the in-scope MNEs.

As shown in Table 5 and Table 6, among the MNEs with three-year average consolidated revenues between 10 billion and 20 billion euros and among those that have above 10 billion euros, technology remains the industry that generates the highest amount of total revenues and PBT as well as the highest average PBT margin, based on the 2020 data.

Table 5: Amount A In-Scope MNEs' 2020 Sales and PBT by Industry in $USD Billion (Sales Between 10B Euros and 20B Euros)

#		Number of In-Scope MNEs	2020 Total Sales	2020 Total PBT	Average PBT Margin*
1	Technology	13	223	49	22%
2	Healthcare	12	211	44	21%
3	Consumer Non-Cyclicals	13	217	31	14%
4	Industrials	12	205	28	14%
5	Non-Energy Materials	10	162	28	17%
6	Telecommunications	7	99	18	18%
7	Utilities	4	108	14	13%
8	Consumer Cyclicals	4	62	8	14%
9	Consumer Services	3	46	8	18%
		78	**1,332**	**229**	**17%**

*Average PBT margin by industry is computed as 2020 total PBT divided by 2020 total sales.

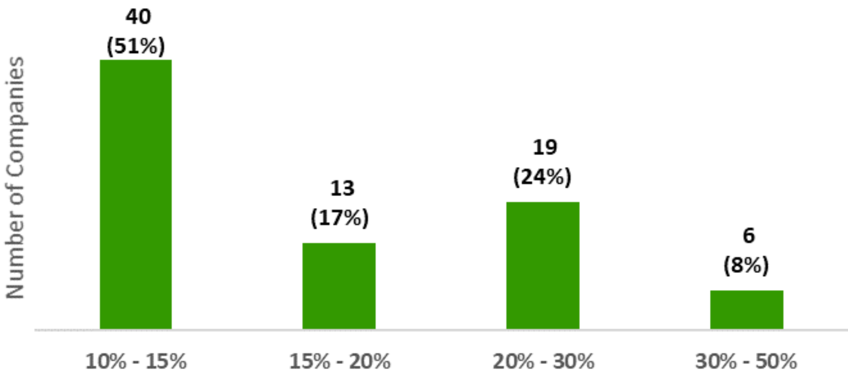
Table 6: Amount A In-Scope MNEs' 2020 Sales and PBT by Industry in $USD Billion (Sales Threshold at 10B Euros)

#		Number of In-Scope MNEs	2020 Total Sales	2020 Total PBT	Average PBT Margin*
1	Technology	30	1,680	421	25%
2	Pharmaceutical	28	885	170	19%
3	Consumer Non-Cyclicals	27	935	164	18%
4	Telecommunications	11	455	97	21%
5	Non-Energy Materials	17	385	77	20%
6	Industrials	22	573	71	12%
7	Consumer Cyclicals	8	313	42	13%
8	Utilities	5	146	19	13%
9	Consumer Services	6	160	11	7%
		154	**5,532**	**1,073**	**19%**

Figure 3 illustrates the distribution of three-year average PBT margin for the 78 MNEs earning consolidated revenues between 10 billion and 20 billion euros. Overall, the results look quite similar to those for the largest MNEs presented in Figure 2. Among the "second-tier" MNEs, the largest group of companies (40 out of 78 or 51%) earns three-year average PBT margin of between 10 and 15 percent. The average and median of three-year average PBT margin for the "second-tier" MNEs are 18.1% and 14.6%, which are slightly lower than those earned by the MNEs currently in scope of Amount A. Based on these observations, we can conclude that reducing the revenue threshold for inclusion in the Amount A regime to 10 billion euros will have a relatively modest add-on impact on revenues that may be sourced from market jurisdictions.

Figure 3: Distribution of In-Scope MNEs' FY2018 – FY2020 Three-Year Average Profitability (PBT Margin)

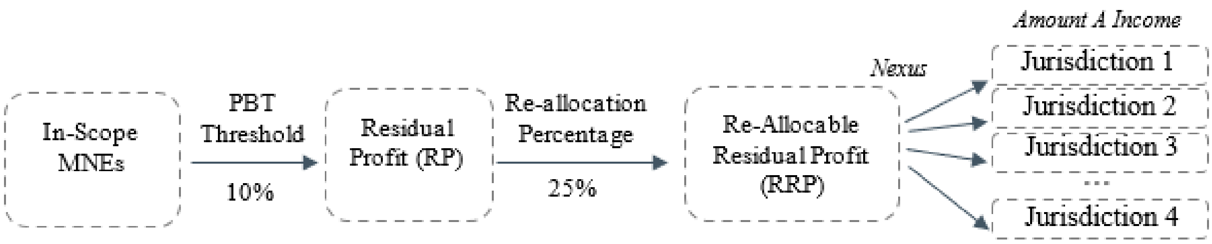
(Sales Between 10B Euros and 20B Euros)



C. Method for Estimating Tax Revenue of Member Countries under Amount A

Calculation of profits subject to re-allocation under Amount A begins with a determination of re-allocable residual profit ("RRP") for each in-scope MNE to be allocated among market jurisdictions that meet the sales threshold for a nexus. The RRP is defined as 25 percent of the profit in excess of 10 percent PBT for the MNEs in scope (OECD, 2021B). The revenue threshold for nexus is 1 million euros for countries with GDP above 40 billion euros and 250 thousand euros for countries with lower GDP (OECD, 2021A). Figure 4 provides a conceptual overview of profit allocation to market jurisdictions under Amount A for in-scope MNEs.

Figure 4: Overview of Amount A Profit Allocation



Step 1: Residual profit ("RP") of in-scope MNEs

For an in-scope MNE, its residual profit (RP) is defined as profit over 10 percent of its PBT margin (formula [1]). If in-scope MNEs earn less than 10 percent PBT margin in a year, its RP will be zero in that year.

$$RP_{i,j} = MAX\ (0, PBT_{i,j} - Sales_{i,j} * 10\%) \qquad [1]$$

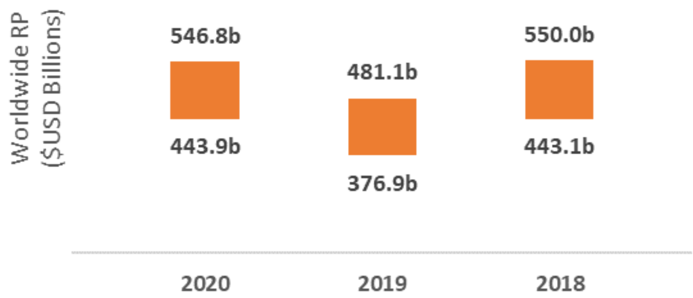
Where:

$RP_{i,j}$ = Residual profit of in-scope MNE i in year j
$PBT_{i,j}$ = Profit before tax of in-scope MNE i in year j
$Sales_{i,j}$ = Sales of in-scope MNE i in year j

Figure 5 provides the range of worldwide RP for in-scope MNEs from 2018 to 2020 in billions of U.S. dollars. At the low end of the range (i.e., assuming that only MNEs with consolidated revenues above 20 billion euros are in scope), the worldwide RP is $443.9 billion, $376.9 billion, and $443.1 billion for years 2020, 2019 and 2018, respectively. At the high end (i.e., assuming that the revenue threshold is reduced to 10 billion euros), the worldwide RP becomes $546.8 billion, $481.1 billion and $550.0 billion for the same years. Thus, lowering of sales threshold from 20 billion to 10 billion euros increases the worldwide RP by 23%, 28% and 24% in years 2020, 2019, and 2018, respectively.

Figure 5: Worldwide RP of In-Scope MNEs

(2018 to 2020)



Step 2: Re-allocable residual profit (RRP) of in-scope MNEs

The re-allocable residual profit (RRP) or the portion of residual profit that is allocable to market jurisdictions is defined as RP times the re-allocation percentage of 25 percent (formula [2]). For those years in which RP is 0, no RRP will be allocable to market jurisdictions.

$$RRP_{i,j} = RP_{i,j} * \text{Re-allocation Percentage} \quad [2]$$

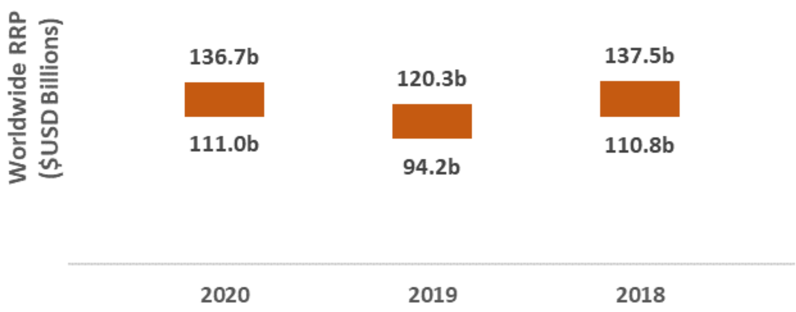
Where:

$RP_{i,j}$ = Residual profit of in-scope MNE i in year j
$RRP_{i,j}$ = Re-allocable residual profit of in-scope MNE i in year j
Re-allocation percentage = 25%

Figure 6 provides the range of worldwide RRP for in-scope MNEs over 2018 to 2020. At the low end of the range (i.e., for in-scope MNEs with consolidated revenues above 20 billion euros), the total worldwide RRP is $111 billion, $94.2 billion, and $110.8 billion for years 2020, 2019 and 2018, respectively. At the high end (i.e., for MNEs with consolidated revenues greater than 10 billion euros), the worldwide RRP is $136.7 billion, $120.3 billion, and $137.5 billion for the same years. Lowering of the sales threshold from 20 billion to 10 billion euros increases the worldwide RRP by 23%, 28% and 24% in years 2020, 2019, and 2018, respectively.

Figure 6: Worldwide RRP of In-Scope MNEs

(FY2018 – FY2020)



Figures 7 and 8 illustrate the distribution of RRP for MNEs in scope of Amount A earning more than 20 billion euros period-average revenues, based on 2020 data. The U.S. headquartered MNEs (37 out of 76 MNEs) account for the largest share (55%) of the worldwide RRP at $60.6 billion. The technology industry as represented by 17 in-scope MNEs account for 52% or $57.3 billion of the worldwide RRP.

Figure 7: 2020 RRP by Country

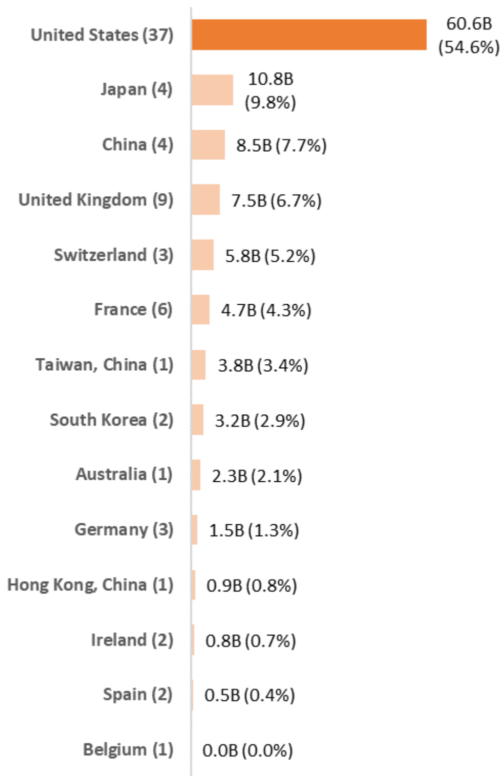


Figure 8: 2020 RRP by Industry

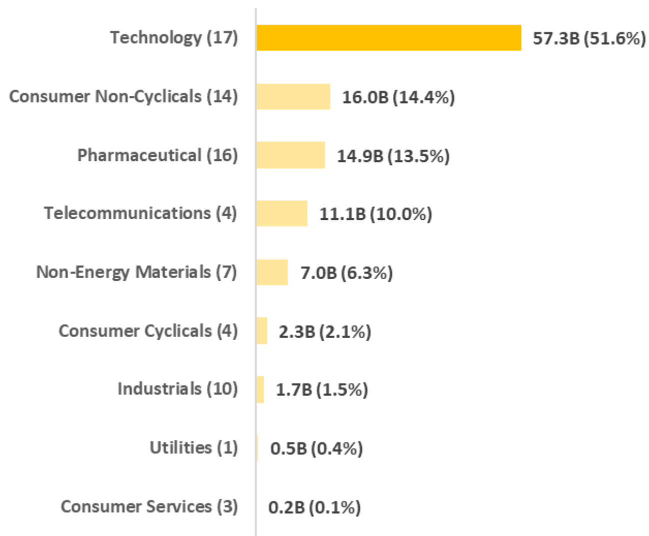
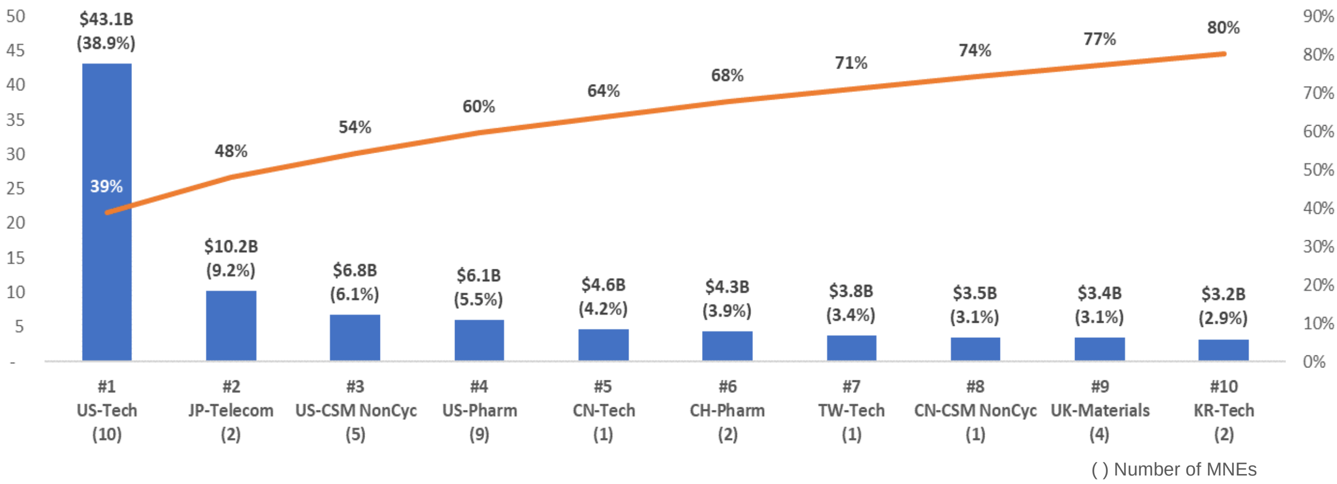


Figure 9 provides the top 10 country/industry combination ranked by RRP in 2020 for the 76 MNEs with period-average revenues of above 20 billion euros. These country/industry combinations account for approximately 80% of the worldwide RRP. The U.S.-based technology companies would incur the largest profit reallocation under the Amount A regime as their aggregate RRP accounts for the largest share of the worldwide RRP at 39% or $43.1 billion.

Figure 9: 2020 RRP by Country/Industry[14]



Step 3: Tax base under Amount A

Due to lack of primary data to apply the revenue sourcing rules to each of in-scope MNEs, we relied on FactSet GeoRev database[15] to obtain the sales percentage by jurisdiction for each of the companies of interest. We used these data as proxy for the sales sourced from each Member Country. A nexus revenue threshold test was then applied to the sales sourced from each Member Country[16] for every in-scope MNE under which the Member Country would receive a portion of the MNE's RRP only if sales sourced from that Member Country exceed the revenue threshold for the nexus. If sales sourced from a Member Country pass the nexus test, the taxable income under Amount A was then computed as the in-scope MNE's RPP times the sales percentage. Finally, the total tax base is the aggregate of RRP allocated to the Member Country across the in-scope MNEs (formula [3]).

$$\text{Taxable Income (A)}_{X,\,j} = \text{SUM (THLD [RRP}_{i,\,j} * \text{Sales\%}_{i,\,j,\,X}\text{])} \qquad [3]$$

Where:

Taxable Income $(A)_{X,\,j}$ = Amount A taxable income of Member Country X in year j
Sales$\%_{i,\,j,\,X}$ = MNE i's sales in Member Country X as a percentage of total MNE i's global sales in year j
THLD [] = Revenue threshold test for Amount A nexus (i.e., for large countries with GDP above 40 billion euros is 1 million euros and for small countries with GDP below 40 billion euros is 0.25 million euros)

[14] Represents in-scope MNEs' latest financial data obtained from FactSet.
[15] According to FactSet, the FactSet Revere Geographic Revenue ("GeoRev") Exposure data provides a highly structured and normalized display of companies' revenues by geography. The data for primary revenue by geography are sourced from company annual reports and regulatory filings including geographic segments tables, information from footnotes, ancillary tables, and in-text disclosures to capture the granular and precise geographic revenues information possible. For non-explicit disclosures, an estimation algorithm based on GDP weighting and accounting logic is then applied. The result is a consistent, accurate, and flexible dataset that can take a company's revenues and break them down into any geographic country or region categories.
[16] The nexus threshold for Member Countries with GDP above 40 billion euros was set at 1 million euros of revenue, and for Member Countries with GDP below 40 billion euros at 0.25 million euros of revenue.

Step 4: Net tax base under Amount A

Because Amount A gives rise to an additional taxation right, we assumed that countries that host the parent companies of in-scope MNEs will provide a full relief from double taxation to such MNEs. For Member Countries, such countries include China, if sales threshold is set at 20 billion euros, with the addition of India and Brazil, if sales threshold is lowered to 10 billion euros, the tax relief was assumed to be equal to the total Amount A generated by domestic in-scope MNEs (which provide relief from both domestic and foreign double taxation). As a result, the tax base for Member Countries in which in-scope MNEs are headquartered is computed as the net of tax base and tax relief under Amount A (formula [4]).

$$\text{Net Tax Base (A)}_{X,j} = \text{Taxable Income (A)}_{X,j} - \text{Tax Relief (A)}_{X,j} \qquad [4]$$

Where:

Tax Relief $(A)_{X,j}$ = Tax relief for double taxation under Amount A of Member Country X in year j (i.e., 0 for Member Countries other than China if sales threshold is 20 billion euros; 0 for Member Countries other than China, India, and Brazil if sales threshold is 10 billion euros)

Net Tax Base $(A)_{X,j}$ = Amount A net tax base of Member Country X in year j

Step 5: Tax revenue under Amount A

As a final step, a Member Country's tax revenue under Amount A was computed as the product of the Member Country's corporate income tax rate and the net tax base under Amount A (formula [5]).

$$\text{Tax Revenue (A)}_{X,\,j} = \text{Tax Rate}_{X,\,j} * \text{Net Tax Base (A)}_{X,\,j} \qquad [5]$$

Where:

$\text{Tax Rate}_{X,\,j}$ = Corporate income tax rate of Member Country X in year j

$\text{Tax Revenue (A)}_{X,\,j}$ = Amount A tax revenue of Member Country X in year j

D. Assumptions and Limitations of the Method

Our method for calculating Amount A tax revenues by jurisdiction is subject to the assumptions and limitations listed below. Some of them may be addressed by conducting further research.

- The selected MNEs (i.e., the 76 companies with revenues of greater than 20 billion euros and 154 companies with revenues of greater than 10 billion euros) found in the FactSet database represent the complete universe of companies that will be subject to Amount A regime. This assumption, likely, underestimates the Amount A tax revenues because we do not include private, non-publicly listed, companies that may be subject to Amount A.

- Due to lack of detailed financial information provided by MNEs, we assumed that the estimation of percentage of revenues earned by each in-scope company in every jurisdiction listed in FactSet GeoRev database provides a reasonable approximation of revenue to be sourced to a market jurisdiction under the Amount A sourcing rules. We also assumed that these revenue percentages did not change materially between 2018 and 2020.

- In-scope MNEs may conduct activities in multiple business segments and certain segments may not meet the Amount A scope rules (i.e., be out of scope of activities covered by Amount A). We did not perform segmentation of MNEs in this analysis but rather considered total consolidated company financials. This may bias upward our estimates of the Amount A tax revenues.

- We did not consider the effect of loss carryforwards in our analysis. Including those effects would, likely, lower our current estimates of Amount A tax revenues.

- We did not consider the impact of the marketing and distribution profit safe harbor in our analysis. As a result, the estimated Amount A tax revenues are likely to be biased upward for the Member Countries in which MNEs perform marketing and distribution functions covered by this safe harbor provision.

- We assumed that the Member Countries that host parent companies of MNEs subject to Amount A (i.e., China if the sales threshold is set at 20 billion euro, additionally, India, and Brazil if the sales threshold is set at 10 billion euro), will provide a full tax relief from double taxation. This assumption, in effect, reduces the total Amount A tax revenue for the host countries.

2. Calculation of Tax Revenue Under Article 12B

A. ADS Companies in Scope of Article 12B

In contrast to Amount A which focuses on taxing large and profitable multinational corporations, excluding regulated financial services and extractive industries, Article 12B aims to tax income from automated digital services (ADS) without a limit on revenue or profitability. According to Article 12B, ADS refers to “any service provided on the Internet or another electronic network, in either case requiring minimal human involvement from the service provider”. In particular, paragraph 6 of Article 12B gives the following examples of ADS:

- Online advertising services;
- Supply of user data;
- Online search engines;
- Online intermediation platform services;
- Social media platforms;
- Digital content services;
- Online gaming;
- Cloud computing services; and
- Standardized online teaching services

We began identification of MNEs performing ADS activities by starting with a set of industry codes (prepared according to 2017 North American Industry Classification System (NAICS) methodology) that, we believe, apply best to ADS. The screening for potential public and private companies was performed in both the FactSet and the Orbis BvD databases.

- 4541 - Electronic Shopping and Mail-Order Houses,
- 5112 - Software Publishers,
- 5152 - Cable and Other Subscription Programming,
- 5179 - Other Telecommunications,
- 5182 - Data Processing, Hosting, and Related Services,
- 51913 - Internet Publishing and Broadcasting and Web Search Portals,
- 51919 - All Other Information Services,
- 541511 - Custom Computer Programming Services,
- 541519 - Other Computer Related Services,
- 541613 - Marketing Consulting Services,
- 54181 - Advertising Agencies,
- 54189 - Other Services Related to Advertising
- 52 – Financial and Insurance[17]

Table 7 and Table 8 summarize the search steps performed to identify the initial list of companies that may be subject to Article 12B in the FactSet and the Orbis BvD databases, respectively. We added a minimum sales criterion of 750 million euros and positive pretax income to the search criteria to limit the number of companies returned by the databases while, at the same time, capturing a significant portion of the Article 12B income. After reviewing the list of companies from both databases and excluding duplicated companies

[17] While financial services companies were not in the list of ADS examples under Article 12B, we classified them in hybrid ADS companies to assess their potential impact on Article 12B tax revenues considering that financial services companies rely heavily on technology and are becoming increasingly digitalized. The search for financial and insurance companies was performed only in the FactSet database.

that show in both databases and those that do not have revenues to be sourced from Member Countries[18], a total of 364 unique companies were identified.

Table 7: FactSet Database Article 12B Companies Search Process

(Based on 2020 Data)

FactSet Database Search Steps	# of Companies Passing the Screen
NACIS 2017 codes	8,393
Exclude 100% domestic	684 out of 8,393
Positive pretax income	335 out of 684
Sales above EUR 750M	255 out of 684
Sales above EUR 750M + Positive Pretax Income	189 out of 1,691

Table 8: Orbis BvD Database Article 12B Companies Search Process

(Based on 2020 Data)

Orbis BvD Database Search Steps	# of Companies Passing the Screen
NACIS 2017 codes, active companies	7,609,716
Sales minimum of $0 in 2020	427,717
Standardized legal form: Public limited company and private limited company	344,018
Entity type: corporate	340,988
Positive pretax income	229,491 out of 340,988
Sales above EUR 750M	541 out of 340,988
Sales above EUR 750M + Positive Pretax Income	387 out of 229,491

As the next step, we reviewed the business description[19] for each of the 364 pre-screened companies and classified them into three categories. The first category includes “pure-play” ADS companies, which are companies that meet the criteria for ADS activities listed in paragraph 6 of Article 12B. The second is a “hybrid ADS” category in which we included companies that provide services over the internet with minimal human involvement but the types of activities of such companies are not among those listed in paragraph 6 of Article 12B. These hybrid ADS companies include businesses engaged in B2B services, companies that sell software in connection with hardware, products, or services, e-commerce companies that have traditional retail activities, companies offering telecommunication services, finance companies such as traditional and investment banks, asset management firms and insurance companies, etc.). The third category of companies was considered not to perform ADS activities. Among these companies were “traditional” manufacturers and distributors, Business Process Outsourcing (BPO) services providers, providers of consulting services, etc. As a result, we accepted a total of 305 companies as either ADS or hybrid ADS ones and rejected 59 companies as performing non-ADS functions.

[18] For public companies, we have reviewed the GeoRev page, accessed via FactSet terminal, for each company. We eliminated those companies that have 100% revenues from countries other than South Centre or African Union Member States (i.e., no tax revenues could be generated from these companies for South Centre or African Union Member States).

[19] For public companies, their business descriptions were obtained from the FactSet database and for private companies, their brief trade descriptions were obtained from the Orbis BvD database.

Table 9 provides the composition of the ADS and hybrid ADS companies that are accepted as Article 12B companies in the study. Most of these companies (221 out of the 305 or 72%) fall into the category of hybrid ADS companies (as opposed to "pure" ADS) and most of these companies are publicly traded (256 out of the 305 companies or 84%).

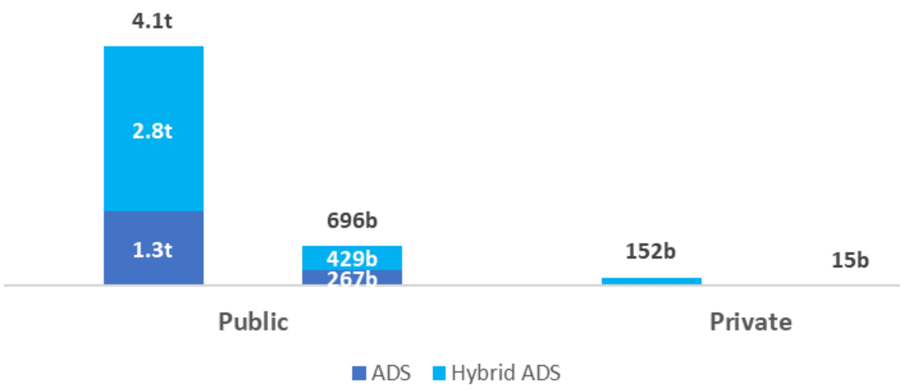
Table 9: Number of Article 12B Companies

Number of Companies	**ADS**	**Hybrid ADS**	**Total**
Public	69	187*	**256**
Private	15	34	**49**
Total	**84**	**221**	**305**

*Includes 107 financial companies

Figure 10 provides the aggregate 2020 sales and PBT by category for Article 12B companies in U.S. dollars. Accordingly, publicly traded Article 12B companies account for 96% ($4.1 trillion out of $4.2 trillion) of the total Article 12B companies' sales and 98% of PBT ($696 billion out of $711 billion) in 2020. These results indicate that lack of detailed information on private companies is not a significant limiting factor for our study.

Figure 10: 2020 Sales and PBT of Article 12B Companies in $USD



In addition, among the publicly traded Article 12B companies, the "pure" ADS companies account for 31% of sales ($1.3 trillion out of $4.1 trillion) and 38% of PBT ($267 billion out of $696 billion) in 2020. This observation may suggest that the list of activities found in Paragraph 6 of Article 12B may restrict the scope of this article rather severely.

The selected ADS and hybrid ADS companies are headquartered in 43 different countries. Table 10 provides the aggregate sales and PBT for the top 10 countries as well as the worldwide totals for 2020 (in billions of U.S. dollars). The worldwide total sales and PBT for these 305 companies in 2020 were $4.2 trillion and $711 million, respectively. These totals are quite similar to those for the 76 MNEs in scope of Amount A shown in Table 1 ($4.2 trillion and $844 million, respectively). The U.S. headquartered Article 12B companies (144 out of 305 companies) account for the largest share of worldwide sales (66%) and PBT (67%). The African Union and South Centre Member Countries that host the parent companies of the Article 12B companies include China, Brazil, and South Africa, with the addition of India, Barbados, Morocco, and Senegal if hybrid ADS companies were also considered in scope of Article 12B.

Table 10: Article 12B Companies' 2020 Sales and PBT by Country in $USD Billions[20]

#	Country	Number of Article 12B Companies	2020 Total Sales	2020 Total PBT
1	United States	144	2,794	477
2	Canada	23	457	55
3	China*	15	223	52
4	Japan	14	168	52
5	United Kingdom	13	109	10
6	France	12	54	6
7	Switzerland	2	48	6
8	Bermuda	8	40	7
9	Netherlands	5	35	4
10	Germany	3	32	2
11-43	Rest of the Countries*	66	293	39
		305	**4,254**	**711**

*Includes some of the African Union or South Centre Member Countries

Table 11 provides the aggregate sales and PBT as well as average PBT margin for the selected 305 companies aggregated by business function. While financial services companies account for the largest share of revenue ($2 trillion or 47%) and PBT ($304 billion or 43%) of the group, social media platforms appear to have the highest PBT margin, on average, followed by online gaming businesses.

Table 11: Article 12B Companies' 2020 Sales and PBT by Business Functions ($USD Billion)

#	Business Functions	# of Companies	2020 Total Sales	2020 Total PBT	Average PBT Margin
1	Financial Services	107	1,996	304	15%
2	Online intermediation platform services	19	554	56	10%
3	Telecom Service	41	448	85	19%
4	Software	44	345	94	27%
5	Online search engines	4	197	50	26%
6	B2B Service	30	149	16	11%
7	Digital content services	8	138	21	15%
8	Online gaming	11	103	32	31%
9	Social media platforms	4	91	34	37%
10	Cloud computing services	8	83	7	8%
11	Online advertising services	11	74	6	8%
12	Other E-commerce (non-intermediation platform)	17	74	5	6%
13	Supply of user data	1	2	0	19%
		305	**4,254**	**711**	**17%**

*Average PBT margin by industry is computed as 2020 total PBT divided by 2020 total sales.

Figure 11 demonstrates the distribution of three-year average revenues for Article 12B companies (expressed in euros). The average and median of this set of companies are 11.2 billion euros and 2.7 billion euros, both of which are significantly lower than those of Amount A in-scope MNEs (shown in Figure 1). Further, approximately 77% of the Article 12B companies had three-year average revenues lower than 10 billion euros as of 2020.

[20] Includes both "pure" ADS and hybrid ADS companies.

Figure 11: Three-Year Average Revenue (in EUR) Distribution of ADS and Hybrid ADS Companies

(FY2018 – FY2020)

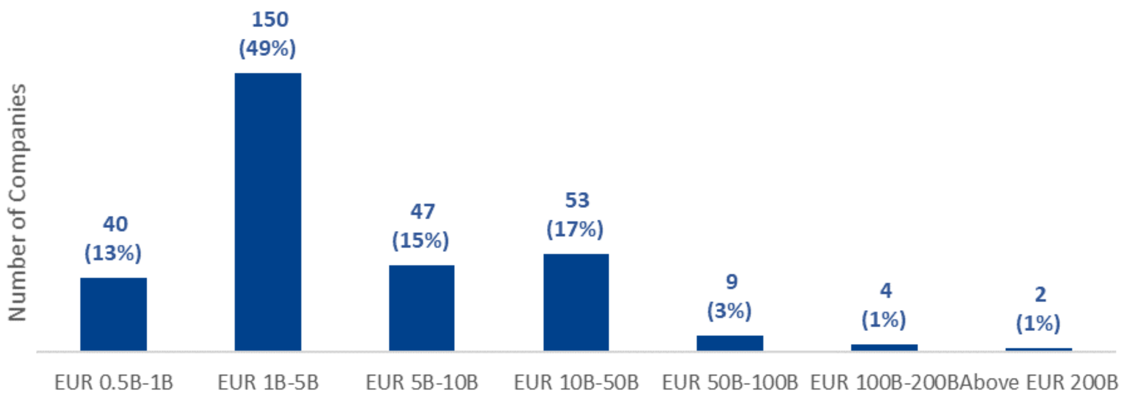
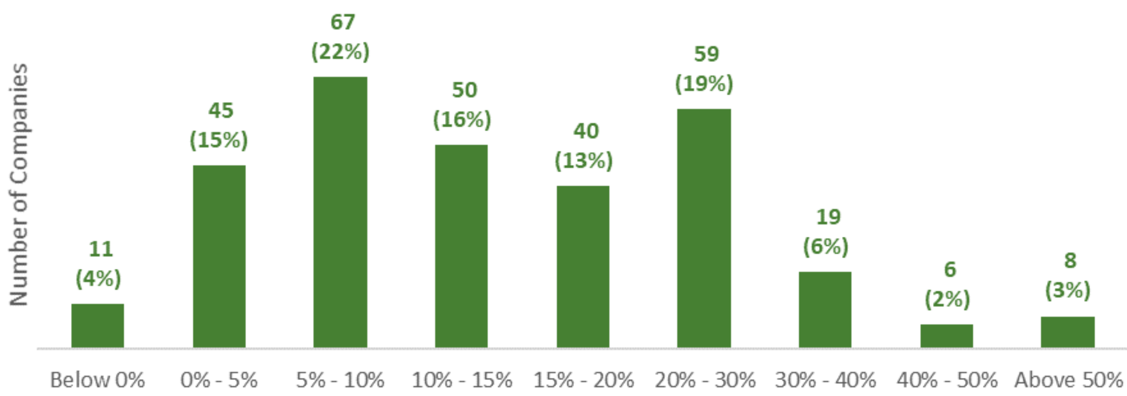


Figure 12 provides the distribution of the three-year average profitability for the Article 12B companies as measured by PBT margin. The average and median PBT of this sample are 16.0% and 12.8% respectively, which are only marginally lower than the PBT margins earned by the MNEs in scope of Amount A (19.2% and 17.5%, respectively, see Figure 2). The three-year average PBT margins of Article 12B companies also exhibit a much wider dispersion compared to the "Amount A companies".

Figure 12: Three-Year Average Profitability (PBT Margin) Distribution of ADS and Hybrid ADS Companies

(FY2018 – FY2020)



B. Method for Estimating Tax Revenues of Member Countries under Article 12B

Article 12B provides two methods to tax the income from ADS: (i) the gross method that taxes the ADS businesses by applying a percentage on "gross amount of the payments underlying the income from automated digital services" and (ii) the net method that taxes "qualified profits" from ADS. The gross method applies as a default option, while the net method may be granted by a contracting state upon request by the taxpayer.

(i) The gross method

Paragraph 2 of Article 12B leaves the tax rate to be applied under the gross method open to negotiation between the parties to a treaty, however the commentary to this paragraph contains a suggestion to set the rate at a level of 3 or 4 percent. Accordingly, in our calculations under the gross method, we applied both 3% and 4% tax rates to the aggregate sales of Article 12B companies sourced from the Member States to provide two separate scenarios for Member Countries under the gross method.

For each of the 256 publicly traded companies, we obtained the distribution of companies' revenues by geographical jurisdiction from the FactSet GeoRev database. For the 49 private companies the geographical breakout of revenue was not available, and to overcome this limitation, we assumed that a specific percentage of the company's revenue was sourced domestically.[21] We then sourced the portion of revenues assumed to be foreign to each Member Country using the GDP weights (i.e., Member Country's GDP as a percentage of total worldwide GDP).

For Member Countries that do not host Article 12B companies, the tax base under the gross method is computed as the aggregate sales of Article 12B companies sourced from the Member Country (formula [6]). For Member States in which some Article 12B companies are headquartered (i.e., China, Brazil, India, South Africa, Barbados, Morocco, and Senegal), the tax base under gross method is the net of the aggregate sales sourced from foreign Article 12B companies and the aggregate sales by domestic Article 12B companies sourced from foreign countries (formula [7]). The latter term represents the estimated relief from double taxation that Member Countries are assumed to provide to their domestic Article 12B companies (as sales of these domestic companies in foreign jurisdictions are being taxed domestically by means of domestic income taxes). The tax revenues under the gross method are then obtained as the product of tax rate (i.e., 3% or 4%) and the tax base.

$$\text{Tax Revenue (B.g)}_{\text{non-ADS. X, j}} = \text{Tax Rate (B.g)} * \text{SUM}\left(\text{Sales}_{\text{i, j}} * \text{Sales\%}_{\text{i, j, X}}\right) \quad [6]$$

$$\text{Tax Revenue (B.g)}_{\text{ADS. X, j}} = \text{Tax Rate (B.g)} * \left[\text{SUM}_{\text{non-X}}\left(\text{Sales}_{\text{i, j}} * \text{Sales\%}_{\text{i, j, X}}\right) - \text{SUM}_{\text{X}}\left(\text{Sales}_{\text{i, j}} * \text{Sales\%}_{\text{i, j, non-X}}\right)\right] \quad [7]$$

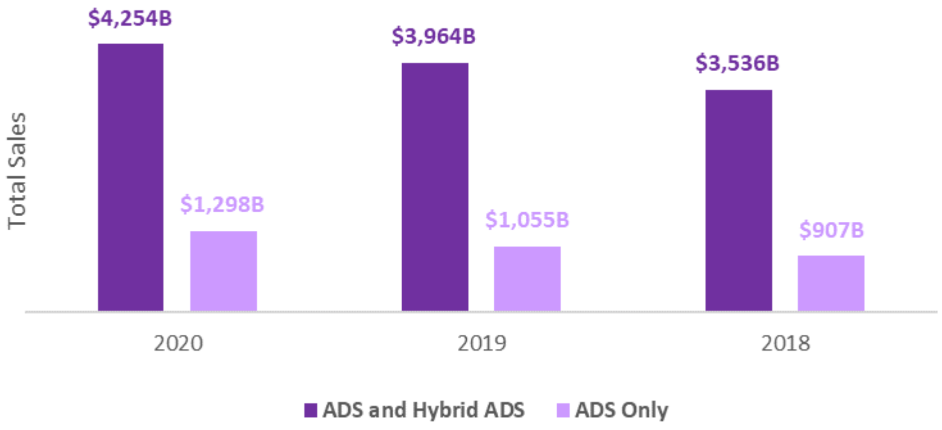
Where:

Tax Revenue (B.g)$_{\text{non-ADS. X, j}}$ = Tax revenue under Article 12B gross method in year j for Member Country X which does not host Article 12B companies
Tax Revenue (B.g)$_{\text{ADS. X, j}}$ = Tax revenue under Article 12B gross method in year j for Member Country X which hosts Article 12B companies
Tax Rate (B.g) = Tax rate under Article 12B gross method (i.e., 3% or 4%)
Sales$_{\text{i, j}}$ = Sales of Article 12B company i in year j
Sales%$_{\text{i, j, X}}$ = Article 12B company i's sales in Member Country X as a percentage of total Article 12B company i's global sales in year j
Sales%$_{\text{i, j, non-X}}$ = Article 12B company i that is headquartered in Member Country X's share of non-X sales as a percentage of company i's global sales in year j

As shown in Figure 13, in years 2020, 2019 and 2018, the worldwide aggregate sales of Article 12B companies were $4.2 trillion, $3.9 trillion, and $3.5 trillion for the combination of ADS and hybrid ADS companies. For "pure" ADS companies, total revenues for the same period were $1.3 trillion, $1 trillion, and $0.9 trillion, respectively. The sales provide the basis for sourcing taxable revenues from the Member Countries.

[21] We made the assumptions regarding domestically sourced revenues taking into account the country the company is headquartered in as well as the nature of its business. In general, the proportions of domestically sourced revenues were assumed to be between 85% and 95%. We believe this range represents a reasonable estimate consistent with the proportion of domestic sales disclosed by the publicly traded companies of similar size.

Figure 13: Worldwide Sales of Article 12B Companies in $USD Billions (FY2018 – FY2020)



(ii) The net method

Under the net method described in paragraph 3 of Article 12B, qualified profits defined as "thirty percent of the amount resulting from applying the profitability ratio of the beneficial owner's automated digital services business segment to the gross annual revenue from automated digital services" shall be used as the tax base. Due to lack of primary data, we used the total company's profitability as an approximate for its ADS segment if applicable.

For Member Countries that do not host Article 12B companies, the tax base under the net method is the aggregate qualified profits of Article 12B companies generated from the Member Countries (formula [8]). For Member States in which Article 12B companies are headquartered (i.e., China, Brazil, India, South Africa, Barbados, Morocco, and Senegal), the tax base is the net of the aggregate qualified profits sourced from foreign Article 12B companies and the aggregate qualified profits of domestic Article 12B companies sourced from foreign countries (formula [9]). Here, again, the latter term represents the estimated relief from double taxation for domestic companies. The tax revenues are then obtained as the product of the Member Country's corporate income tax rate and the tax base under the net method. To estimate the relief from double taxation in formula [9], we applied the corporate income tax rates for expediency. A more precise method would use the applicable income tax rates of the foreign jurisdictions to obtain the double tax relief from the additional tax liabilities of domestic companies subject to Article 12B regime.

$$\text{Tax Revenue (B.n)}_{\text{non-ADS. X, j}} = \text{Tax Rate}_{\text{X, j}} * \text{SUM}\ (30\% * \text{PBT Margin}_{\text{i, j}} * \text{Sales}_{\text{i, j}} * \text{Sales\%}_{\text{i, j, X}}) \quad [8]$$

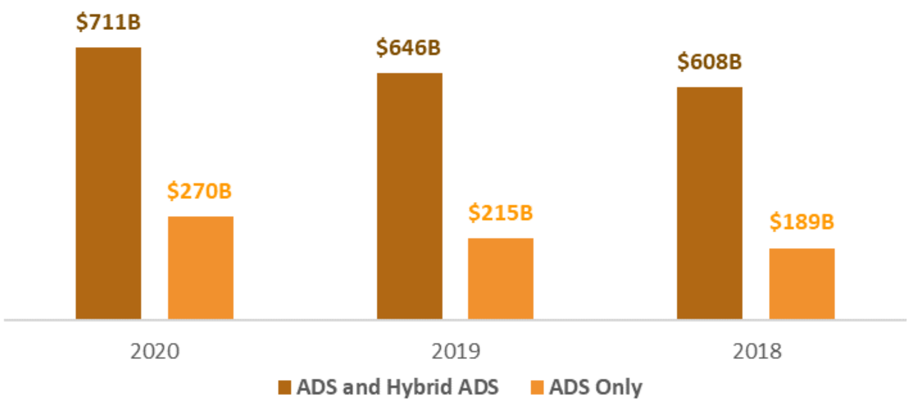
$$\text{Tax Revenue (B.n)}_{\text{ADS. X, j}} = \text{Tax Rate}_{\text{X, j}} * [\text{SUM}_{\text{non-X}}\ (30\% * \text{PBT Margin}_{\text{i, j}} * \text{Sales}_{\text{i, j}} * \text{Sales\%}_{\text{i, j, X}}) - \text{SUM}_{\text{X}}\ (30\% * \text{PBT Margin}_{\text{i, j}} * \text{Sales}_{\text{i, j}} * \text{Sales\%}_{\text{i, j, non-X}})] \quad [9]$$

Where:

$\text{Tax Revenue (B.n)}_{\text{non-ADS. X, j}}$ = Tax revenue under Article 12B net method in year j for Member Country X which does not host Article 12B companies
$\text{Tax Revenue (B.n)}_{\text{ADS. X, j}}$ = Tax revenue under Article 12B net method in year j for Member Country X which hosts Article 12B companies
$\text{Tax Rate}_{\text{X, j}}$ = Corporate income tax rate of Member Country X in year j
$\text{Sales}_{\text{i, j}}$ = Sales of Article 12B company i in year j
$\text{PBT Margin}_{\text{i, j}}$ = pretax income margin (Pretax profit divided by sales) of Article 12B company i in year j
$\text{Sales\%}_{\text{i, j, X}}$ = Article 12B company i's sales in Member Country X as a percentage of total Article 12B company i's global sales in year j
$\text{Sales\%}_{\text{i, j, non-X}}$ = Article 12B company i that is headquartered in Member Country X's share of non-X sales as a percentage of company i's global sales in year j

Figure 14 presents the worldwide aggregate PBT of Article 12B companies. For years 2020, 2019, and 2018, the PBT of both "pure" and hybrid ADS companies were $711 billion, $646 billion, and $608 billion, respectively. The PBT for "pure" ADS alone was $270 billion, $215 billion, and $189 billion for the same years. These PBT estimates provide the basis for sourcing qualified profits from the Member States to be taxed under the net method.

Figure 14: Worldwide PBT of Article 12B Companies in $USD Billions (FY2018 – FY2020)



C. Assumptions and Limitations of the Method

The method of computing tax revenues by jurisdiction under the Article 12B regime used in this study is subject to the assumptions and limitations listed below. Some of them could be resolved by conducting further research.

- It is assumed that the set of 2017 NAICS codes selected for this study allows to correctly identify the universe of ADS and hybrid ADS companies that Article 12B aims to tax. With the ongoing digitalization of the economy, however, ADS services are likely to permeate into other industries that were not captured by the NAICS codes selected for this study. Therefore, the tax revenues calculated in this study may be underestimated.

- For expediency reasons, this study does not include ADS companies with consolidated revenues lower than 750 million euros and those with negative pretax income in 2020, while Article 12B does not impose thresholds on sales or profitability. These restrictions, most likely, result in under-estimation of tax revenues that may be collected by the Member Countries.

- This study did not attempt to segment hybrid companies to obtain their revenues and profits associated with ADS activities only. As such, revenues that are subject to Article 12B taxation, both under the net and gross methods, are likely to be overestimated. At the same time, the PBT margin used in computing the tax revenues under the net method may be underestimated if the ADS activities of the hybrid companies have higher PBT margins than non-ADS activities.

- For publicly traded Article 12B companies, we assumed that the estimates of sales percentages by jurisdiction found in the FactSet GeoRev database provide a reliable representation of revenues generated in Member Countries. For private Article 12B companies, for which FactSet does not report the geographical breakout of revenue, we assumed that a specific portion of each company's revenue is sourced domestically, and the remainder of revenue that would be foreign-sourced is sourced from Member Countries in proportion of Member Countries' GDP. This study also assumes that these percentages of revenue allocation did not change over the time period considered.

- The search for ADS companies was based using companies' revenues and PBT for 2020. This implicitly assumes that the composition of companies performing ADS activities does not change over the time period considered. In practice, however, companies often change their functions as they acquire or divest businesses and open or close business lines. As the result, the set of companies subject to Article 12B taxation may be changing over time in significant ways.

- The presentation of our analysis assumes that companies subject to Article 12B taxation will all choose either the gross method or the net method as a group. In reality, however, companies will likely choose the method that allows them to pay the lowest taxes.

3. Comparison of Estimated Tax Revenues Under Amount A and Article 12B

Diagrammatic representations of estimated tax revenues under Amount A and Article 12B regimes for selected countries and regions of the South Centre and the African Union are provided in Appendix E. Appendix F provides the estimated tax revenues by country in a tabular form for both regimes.

A. Aggregate Tax Revenues for South Centre Member Countries

Figure 15 provides the estimates of aggregate tax revenues for all 54 South Centre Member Countries[22] under Amount A and Article 12B (both gross and net methods) for the period from 2018 to 2020.

The low end of the tax revenue estimates for Amount A is obtained assuming that the 20 billion euros sales threshold is used to select the MNEs in scope of the Amount A regime. The high end of the Amount A estimate is obtained when the revenue threshold is reduced to 10 billion euros.

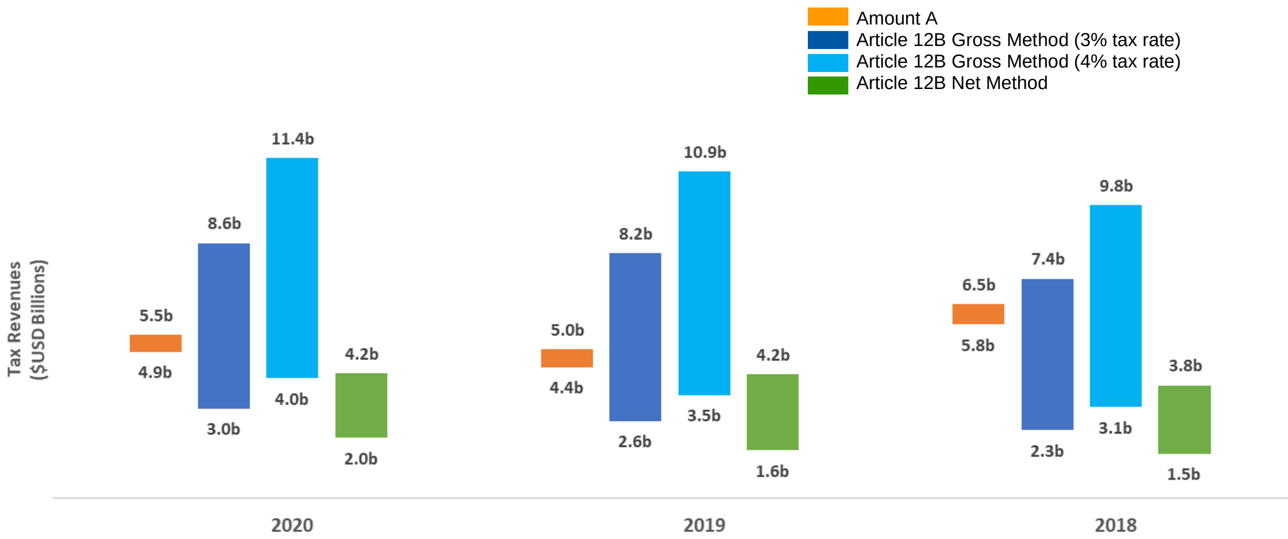
The low end of tax revenues for the Article 12B regime is obtained when only "pure" ADS companies are considered. The high end of the Article 12B revenues shows the estimates when hybrid ADS companies are added to "pure" ADS companies. The chart presents the gross method results for both 3% and 4% revenue tax rates.

On aggregate, Amount A, as currently designed, could generate $4.9 billion in tax revenue for the South Centre Member Countries in 2020 ($4.4 billion in 2019 and $5.8 billion in 2018). In contrast, the net method of Article 12B, applied only to "pure" ADS companies, would have generated the lowest amount of aggregate tax revenues at $2.0 billion in 2020 ($1.6 billion in 2019 and $1.5 billion in 2018). If the gross method was applied only to "pure" ADS companies, the aggregate tax revenue for the South Centre Member Countries in 2020 would be $3.0 billion assuming a 3% tax rate and $4.0 billion assuming a 4% tax rate. Inclusion of hybrid ADS in scope of Article 12B taxation would add significantly more revenue, to the point that revenues under the gross method would surpass the revenues from the Amount A regime.

[22] Appendix B provides the list of Member Countries.

The higher estimate of the aggregate Amount A tax revenue in 2018 appears to be caused by the fact that a greater number of MNEs in scope of Amount A had PBT above 10 percent in 2018 and a lower aggregate tax relief was computed for 2018.

Figure 15: Amount A vs. Article 12B for South Centre Member Countries (2018 to 2020)



B. Results for Countries that Host Companies Both in Scope of Article 12B and Current or Potential Amount A Companies (China, India, and Brazil)

The aggregate results presented in Figure 15 are significantly impacted by the results for China, which, being the largest economy in the group, represents a large portion of aggregate tax revenues.

The South Centre Member Countries are comprised of countries with vastly different sizes and composition of economies. China, being the largest economy in the group, represents a large portion of aggregate GDP and tax revenues of the Member Countries. Among the South Centre Member Countries, there are countries that host both MNEs in scope of Amount A and Article 12B companies (i.e., China, and India and Brazil if the sales threshold of 10 billion is used for screening Amount A MNEs) and those that host only companies in scope of Article 12B regime. Because of this heterogeneity, it is best to present the results of our analysis not on an aggregate basis but disaggregated across several countries or their groups that have general similarities across them. We will begin with China, India, and Brazil, estimated tax revenues for which under Amount A and Article 12B (gross and net method) are provided in Exhibits 1 through 3 of Appendix E.

1. China

China hosts both MNEs in scope of Amount A and Article 12B. As shown in Exhibit 1 of Appendix E, Amount A would have been the preferred regime for China as it would have generated higher tax revenues than Article 12B in all years of the 2018-2020 period, especially if only “pure” ADS companies were in the scope of Article 12B. Tax revenues under Article 12B could exceed Amount A in 2020 and 2019 if the Article 12B regime combines “pure” ADS with hybrid ADS and a 4 percent tax rate was applied under the gross method. However, the net method under Article 12B would have generated the lowest tax revenues for China in all three years, reducing tax revenues under Article 12B if companies are free to choose either method.

2. India

India hosts some hybrid ADS companies that may be in scope of Article 12B and, if the sales threshold for inclusion into Amount A were lowered to 10 billion euros, it would become a host to some MNEs that will fall into scope of Amount A. Because of this, India would lose some tax revenue if the lower sales threshold for Amount A is implemented because domestic in-scope MNEs sourced material revenues overseas.

Under the current design of Amount A (i.e., with MNEs revenues set at 20 billion euros), Amount A would have generated higher tax revenues than Article 12B for India if only “pure” ADS companies were in the scope of Article 12B. Yet, if hybrid ADS companies were also included, then revenues from the Article 12B gross method would likely exceed the Amount A revenues for India, particularly at the tax rate of 4 percent. However, the net method under Article 12B would still generate the lowest tax revenues, resulting in lower tax revenue estimates under Article 12B if companies choose the net method across the board.

If the sales threshold for inclusion of MNEs into Amount A regime was set at 10 billion euros, some of India-headquartered MNEs would become subject to Amount A taxation. As a result, India would have to transfer some of its tax revenues to foreign jurisdictions. In such a case, taxation under Article 12B would, likely, generate higher tax revenues for India.

3. Brazil

Brazil hosts some companies that would be in scope of the Article 12B taxation and Brazil-headquartered MNEs would be in the scope of Amount A if the sales threshold for inclusion into Amount A regime was lowered to 10 billion euros.

Unlike India, Brazil does not seem to stand to lose tax revenue from lowering of the Amount A revenue threshold to 10 billion, but it gains little additional revenue from this change.

As shown in Exhibit 3 of Appendix E, Amount A would have been the preferred regime for Brazil only if the scope of Article 12B was restricted to “pure” ADS companies. However, taxation under Article 12B would have generated higher tax revenues, if hybrid ADS companies were also included in the scope of Article 12B.

C. Results for Countries that Host Companies in Scope of Article 12B but Not Subject to Amount A (South Africa, Barbados, Morocco, and Senegal)

Countries that host Article 12B companies but do not have MNEs that could, potentially, be subject to Amount A taxation, will stand to lose some of their tax revenue to taxation under Article 12B because part of their domestic tax base will be transferred to foreign jurisdictions to the extent their domestic Article 12B companies earn revenues from foreign jurisdictions. This conclusion assumes that a jurisdiction will grant domestic companies a full offset of additional taxes due under Article 12B through credits or exemptions.

Exhibits 4 through 9 in Appendix E provide the estimated tax revenues under Amount A and Article 12B (gross and net method) for countries that host companies potentially subject to taxation under Article 12B but do not host companies that currently or in near future may become subject to Amount A taxation. These countries are: South Africa, Barbados, Morocco, and Senegal.

1. South Africa

As shown in Exhibit 4 of Appendix E, South Africa appears to gain more tax revenue from Amount A than under Article 12B. This conclusion appears to hold regardless of the income threshold for the Amount A regime and the scope of the Article 12B regime. This is because South Africa hosts MNEs that would be included in scope of Article 12B taxation and these MNEs appear to generate material revenues in foreign jurisdictions. Under the Article 12B regime, and assuming a full relief from double taxation is provided, South Africa would have to surrender some of its tax revenue to foreign jurisdictions from which MNEs in scope of Article 12B taxation derive their revenues. On the other hand, South Africa stands to be a beneficiary of the Amount A regime.

2. Barbados

For Barbados, neither Amount A nor Article 12B would result in any material tax revenue gains due to absence of any material revenue from the Amount A regime and a likely loss of tax revenue from implementation of Article 12B regime as the country hosts some hybrid ADS (financial) companies that derive significant portion of their revenue from foreign jurisdictions. The results of Barbados are shown in Exhibit 5 of Appendix E.

3. Morocco

Because Morocco hosts some hybrid ADS (telecom) companies that may be in scope of Article 12B, should the scope of Article 12B include hybrid ADS businesses, Morocco's tax revenues would go down compared to the Article 12B design that only includes "pure" ADS businesses. As shown in Exhibit 6 of Appendix E, under the current Amount A design (i.e., the revenue threshold of 20 billion euro), Morocco's tax revenue from the Amount A regime will be on par or lower than the revenue from the potential Article 12B design of the gross method that includes only "pure" ADS businesses. Morocco's tax revenue under Amount A would be higher if the Article 12B design were to include hybrid ADS companies along with "pure" ADS ones. The net method under both scenarios is likely to reduce the tax revenue estimate under Article 12B as it produces the lowest revenues.

4. Senegal

Senegal also hosts some companies that could be categorized as hybrid ADS (telecom) and, as such, it would have to surrender some of its tax revenues to foreign jurisdictions should the scope of Article 12B design include hybrid ADS businesses. Senegal's revenues under Article 12B regime that includes only "pure" ADS businesses and applies a 4% tax rate under the gross method may be higher than revenues under the Amount A regime (based on 2020 and 2019). Nevertheless, an unrestricted use of the net method is likely to reduce the tax revenue estimate under Article 12B.

D. Amount A vs. Article 12B for South Centre Countries by Region

The South Centre is comprised of 54 Member Countries from Africa, Asia, Latin America, and the Caribbean. The list of South Centre Member Countries in each region is listed in Appendix B. South Centre Member Countries other than China, India, Brazil, South Africa, Barbados, and Morocco do not host either MNEs in scope of Amount A or in scope of Article 12B. As a result, these countries stand to gain tax revenue under both regimes. We have categorized the South Centre Member Countries into five regions as defined by the World Bank (i.e., East Asia & Pacific, Latin America & Caribbean, Middle East & North Africa, South Asia, and Sub-Saharan Africa) and prepared a general discussion of the results of our analysis for each of these regions.

1. East Asia and Pacific Excl. China

There are eight South Centre Member Countries located in East Asia & Pacific consisting of Cambodia, China, North Korea, Indonesia, Malaysia, Micronesia, Philippines, and Vietnam.

a) Indonesia

As shown in Exhibit 8 of Appendix E, in 2020 and 2019, Indonesia's tax revenues under Article 12B gross method would have been on par with revenue from Amount A if a 3 percent tax rate under the gross method was used and only "pure" ADS companies were in scope. The Article 12B gross method revenue with only "pure" ADS companies in scope would have been higher than the Amount A revenue if a 4 percent tax rate was applied. If a combined ADS and hybrid ADS companies were in the scope of Article 12B, then the Article 12B regime would have been the preferred regime.

b) Rest of East Asia and Pacific Excl. China and Indonesia[23]

The aggregate tax revenues for the rest of East Asia & Pacific South Centre Member Countries, excluding China and Indonesia, are shown in Exhibit 9 of Appendix E. This chart exhibits patterns similar to those of Indonesia (Exhibit 8). This pattern indicates that the Amount A regime may be preferred from the tax revenue standpoint when the Article 12B design involves only "pure" ADS companies, a tax rate of 3%, and an unrestricted option for the taxpayers to apply the net method. A broader scope of Article 12B, a higher tax rate under the gross method, and removal of the net method option should, generally, result in higher tax revenues under Article 12B than under Amount A for these countries.

2. Latin America and Caribbean Excl. Brazil and Barbados[24]

The South Centre Member Countries located in Latin America & Caribbean are Argentina, Barbados, Brazil, Bolivia, Cuba, Dominican Republic, Ecuador, Guyana, Honduras, Jamaica, Nicaragua, Panama, Suriname, and Venezuela. As separate analysis for Brazil and Barbados was presented above, Exhibit 10 of Appendix E contains the results only for the remaining countries in this region. For this group of countries, the Amount A regime would be preferred from the tax revenue standpoint only if the scope of Article 12B design is rather narrow, or specifically, it focuses only on "pure" ADS companies, applies a tax rate of 3%, and has an unrestricted option for the taxpayers to apply the net method. A broader scope of Article 12B, a higher tax rate under the gross method, and, potentially, restricting the application of the net method may, generally, result in higher tax revenues under Article 12B than under Amount A for this group of countries.

3. Middle East and North Africa Excl. Morocco[25]

The South Centre Member Countries located in Middle East & North Africa are Algeria, Egypt, Iran, Iraq, Jordan, Libya, Morocco, and Palestine. As separate analysis for Morocco was presented above, we discuss here only the results for the remaining countries in this region. As Exhibit 11 of Appendix E demonstrates, for the countries in this region (excluding Morocco), Article 12B appears to be, generally, the preferred regime as the tax revenue generated by this taxation regime would exceed the aggregate tax revenues from Amount A. However, application of the net method under the Article 12B by most of taxpayers under the condition that Article 12B applies only to "pure" ADS companies may result in lower revenues under Article 12B than from the Amount A regime for the countries in this region.

[23] Discussion per aggregate revenue by region only. Results may vary by country.
[24] Discussion per aggregate revenue by region only. Results may vary by country.
[25] Discussion per aggregate revenue by region only. Results may vary by country.

4. South Asia Excl. India[26]

The South Centre Member Countries located in South Asia are India, Pakistan, and Sri Lanka. As separate analysis for India was presented above, we discuss here only the combined results for Pakistan and Sri Lanka shown in Exhibit 12 of Appendix E. The Amount A regime would be beneficial for these countries, from the tax revenue perspective, only if the alternative Article 12B regime had a narrow scope (focusing only on "pure" ADS companies), set gross method tax rate at 3%, and allowed an unrestricted application of the net method by taxpayers. A design of Article 12B regime with a broader scope that allows inclusion of hybrid ADS businesses and restricts application of the net method may generate more tax revenues for these countries than Amount A.

5. Sub-Saharan Africa Excl. South Africa

The South Centre Member Countries located in Sub-Saharan African region include 21 Members consisting of Angola, Benin, Burundi, Cabo Verde, Côte d'Ivoire, Gabon, Ghana, Liberia, Malawi, Mali, Mauritius, Mozambique, Namibia, Nigeria, Seychelles, Sierra Leone, South Africa, Sudan, Tanzania, Uganda, and Zimbabwe. These South Centre Member countries located in Sub-Saharan Africa are also African Union Member States. South Africa and Nigeria are the two countries among this group with the largest GDP. The results for South Africa were discussed above, and in this section, we are presenting results for Nigeria on its own along with the aggregate results for the rest of the Member Countries in the region.

a) Nigeria

The results for Nigeria are shown in Exhibit 13 of Appendix E. If only "pure" ADS companies were in scope of Article 12B, the gross method tax rate was set at 3%, and the unrestricted application of the net method was allowed, Amount A would have generated higher tax revenues for Nigeria. Expanding the scope of Article 12B to hybrid ADS companies and restricting the application of the net method would likely allow Nigeria to obtain higher tax revenues under the Article 12B regime than under Amount A.

b) Rest of Sub-Saharan Africa Excl. South Africa and Nigeria[27]

Exhibit 14 of Appendix E presents our calculations for the rest of Sub-Saharan Africa Member Countries. The results for 2020 and 2019 suggest that this group of countries may benefit from the Article 12B regime more than from the current Amount A regime, unless an unrestricted application of the net method under Article 12B is allowed. Broadening the scope of the Article 12B design to include hybrid ADS businesses would ensure more tax revenues, although even the most restrictive scope of the Article 12B design (limited only to "pure" ADS and a 3% tax rate is applied in the gross method) combined with a restricted application of the net method appears to provide more revenue than Amount A to this group of countries in 2020.

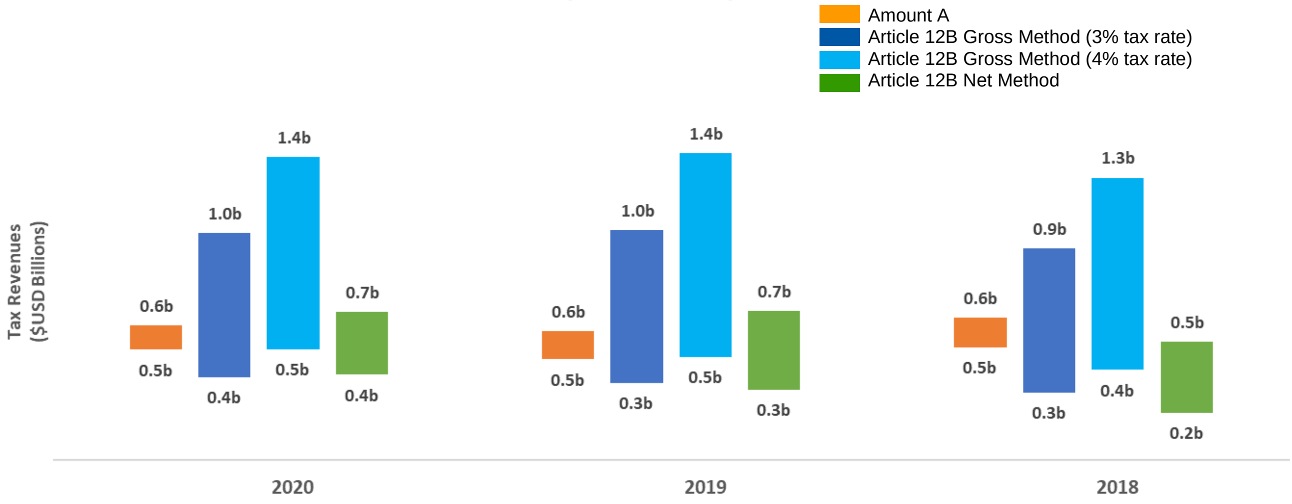
E. Aggregate Tax Revenues for African Union Member States

Figure 16 provides the aggregate estimated tax revenues under Amount A and Article 12B (gross and net method) for all 55 African Union Member States for the period from 2018 to 2020.[28]

[26] Discussion per aggregate revenue by region only. Results may vary by country.
[27] Discussion per aggregate revenue by region only. Results may vary by country.
[28] The list of African Union Members Countries is provided in Appendix C.

The results suggest that taxation under Amount A would be beneficial for the African Union Member States only if the Article 12B regime were to be designed in a fairly narrow fashion, i.e., focused only on "pure" ADS companies, using the tax rate of 3% under the gross method, and allowing unrestricted application of the net method.

Figure 16: Amount A vs. Article 12B for African Union Member States (2018 – 2020)



F. Amount A vs. Article 12B for Africa Union Countries by Region

The African Union is comprised of 55 Member States from Central Africa, Eastern Africa, Northern Africa, Southern Africa, and Western Africa, representing all the countries on the African Continent.

1. Central Africa[29]

The African Union Member States located in Central Africa include Burundi, Cameroon, Central African Republic, Chad, Congo Republic, DR Congo, Equatorial Guinea, Gabon, and São Tomé and Príncipe. As Exhibit 15 demonstrates, Amount A would have generated aggregate tax revenues that are on par or higher than Article 12B if Article 12B is designed in a relatively narrow scope (i.e., "pure" ADS companies, a gross method tax rate of 3%, and unrestricted use of net method). The use of 4% gross method tax rate combined with restricted use of net method could allow estimated tax revenues under Article 12B to surpass Amount A in 2020 and 2019. The difference could be significantly widened if Article 12B includes hybrid ADS businesses.

2. Eastern Africa[30]

Exhibit 16 provides the aggregate revenues under Amount A and Article 12B (gross and net method) for African Union Member States located in Eastern Africa which include Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Mauritius, Rwanda, Seychelles, Somalia, South Sudan, Sudan, Tanzania, and Uganda. Similar to Central Africa, based on the results observed for 2020 and 2019, Amount A would have generated aggregate tax revenues that are on par or marginally higher than Article 12B if the Article 12B regime focused exclusively

[29] Discussion per aggregate revenue by region only. Results may vary by country.
[30] Discussion per aggregate revenue by region only. Results may vary by country.

on "pure" ADS businesses and allowed an unrestricted use of the net method. On the other hand, Article 12B would have been the preferred regime if the hybrid ADS businesses were also included in scope, regardless of whether the use of net method would be restricted or not.

3. Northern Africa Excl. Morocco

The African Union Member States located in Northern Africa include Algeria, Egypt, Libya, Mauritania, Morocco, Sahrawi Republic, and Tunisia. As separate analysis for Morocco was presented above, we discuss here only the results for the remaining countries in this region. We present results for Egypt on a standalone basis as Egypt has significantly larger GDP than the rest of the Member States in this region.

a) Egypt

As shown in Exhibit 17, Article 12B appears to be, generally, the preferred regime as the tax revenue generated by this taxation regime would exceed the aggregate tax revenues from Amount A. However, broad application of the net method under Article 12B by companies under the condition that Article 12B applies only to "pure" ADS businesses may result in lower tax revenues under Article 12B than from the Amount A regime.

b) Rest of Northern Africa Excl. Egypt and Morocco[31]

The aggregate tax revenues for the rest of Northern Africa excluding Egypt and Morocco are shown in Exhibit 18 of Appendix E. This chart exhibits the pattern similar to that of Egypt (Exhibit 17). This pattern indicates that, given the results for 2020 and 2019, Article 12B appears to be, generally, the preferred regime, unless the net method were to be used by most taxpayers combined with the condition that Article 12B applies only to "pure" ADS companies.

4. Southern Africa Excl. South Africa[32]

The African Union Member States located in Southern Africa include Angola, Botswana, Eswatini, Lesotho, Malawi, Mozambique, Namibia, South Africa, Zambia, and Zimbabwe. As separate analysis for South Africa was presented above, we discuss here only the combined results for the rest of African Union Member States located in Southern Africa shown in Exhibit 19 of Appendix E. Amount A would have generated higher aggregate tax revenues if Article 12B is designed with a rather narrow scope (i.e., only "pure" ADS companies in scope, a tax rate of 3% under the gross method, and an unrestricted use of the net method). On the other hand, Article 12B would have been the preferred regime for this group of countries if hybrid ADS businesses were also included in the scope, regardless of whether the application of the net method was limited or not.

5. Western Africa Excl. Nigeria and Senegal[33]

The African Union Member States located in Western Africa include Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo. As separate analysis for Nigeria and Senegal were presented above, Exhibit 20 of Appendix E contains results only for the remaining countries in this region. For this group of countries, Article 12B would have been, in general,

[31] Discussion per aggregate revenue by region only. Results may vary by country.
[32] Discussion per aggregate revenue by region only. Results may vary by country.
[33] Discussion per aggregate revenue by region only. Results may vary by country.

the preferred regime (based on results for 2020 and 2019). Significantly higher tax revenues would have been generated under Article 12B than Amount A if hybrid ADS companies were also allowed in scope of Article 12B. Only if the Article 12B regime were to be designed in a very restrictive way (i.e., only “pure” ADS companies in scope with a tax rate of 3% under the gross method, and an unrestricted use of the net method), aggregate tax revenues under Amount A would be comparable or greater to those under Article 12B.

IV. Summary and Conclusions

The analysis discussed in this study models the revenue impact of the Amount A and Article 12B tax regimes for a group of South Centre and African Union Member States based on the data for the period 2018 to 2020.

Using databases available to private sector researchers, we have identified MNEs that are likely to be in scope of Amount A with sales thresholds of either 20 billion or 10 billion euros and, separately, the group of MNEs that may be affected by taxation under Article 12B. We divided the latter group between the "pure" ADS companies and hybrid ADS companies based on the nature of their business activities. To make the analysis manageable, the scope of Article 12B analysis in this study was limited to the companies that have revenues above 750 million euros. We believe that eliminating the minimum sales criterion would increase the estimated tax revenues under Article 12B, although we are unable to estimate the size of this increase at this time.

In developing the methodology to estimate the tax revenues by country, we have considered the parameters that have been agreed upon or considered under both taxation regimes. Accordingly, we have constructed two scenarios for the Amount A regime with minimum sales thresholds of 20 billion and 10 billion euros for MNEs in scope and two scenarios to model the effects of the Article 12B gross method using tax rates of 3% and 4%. We have also calculated the results under the Article 12B net method. While the parameters of the Amount A design may be considered settled at this time, the ultimate design of Article 12B is open to negotiation between countries that enter or renegotiate tax treaties. Therefore, designs of the Article 12B regime other than those we have modeled in our analysis are feasible.

Our analysis is subject to several key assumptions and limitations. One important limitation is our reliance of our analysis on geographical sourcing of revenue on the data recorded in the FactSet GeoRev database. We used these data as estimates of the revenues sourced from Member States by MNEs in scope of Amount A and Article 12B. We also relied on financial data of companies presented in the databases on a consolidated level. The lack of access to actual taxpayer's financial data and company-specific information could result in our estimates varying materially from estimates that rely on taxpayer-specific data.

Generally, our analysis suggests that a "narrow" design of the Article 12B method that combines consideration of only "pure" ADS businesses, an unrestricted application of the net method by taxpayers, and a relatively low tax rate under the gross method (such as 3%), may not benefit the South Centre and African Union Member States significantly enough to prefer the Article 12B regime to Amount A (or Pillar One broadly). This conclusion may change for most Member States if Article 12B is designed to cover both "pure" and hybrid ADS businesses and to restrict the application of the net method. For Member States that host MNEs that generate a significant part of their revenues in foreign jurisdictions, the choice between the Amount A and Article 12B regimes may be more nuanced, as the choice between the two regimes will depend on the design of the Article 12B method and whether relief from double taxation will be granted to domestic MNEs.

With access to taxpayers' financial data, the methods applied in our research can be refined to produce more precise results, as taxpayer-specific data would allow to account for the sales and marketing safe harbor under Amount A, segment out the ADS activities for companies engaging in hybrid ADS businesses for the purpose of Article 12B application, and to consider scenarios that account for loss carryforwards.

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APPENDIX A: DATA SOURCES

The data sources used in the study include the following:

- **FactSet Database ("FactSet"):** FactSet provides computer-based financial data and analysis. We used FactSet's Universal Screening function to identify MNEs in scope of Amount A and to identify ADS companies subject to Article 12B. We used FactSet's GeoRev function to obtain the revenue percentage estimation by jurisdiction for in-scope MNEs under Amount A and ADS companies subject to Article 12B. We obtained the financial data for the public companies included in the study from FactSet.

- **Orbis BvD Database ("ORBIS"):** ORBIS database, published by Bureau van Dijk, provides financial and market data on approximately 420 million public and private companies. We used Orbis database in conjunction with the FactSet's Universal Screening function to identify private ADS companies in scope of Article 12B. We obtained the financial data for the private companies included in the study from ORBIS.

- **World Bank:** We used statistics from the World Bank (i.e., GDP) to apply the nexus test under Amount A and to estimate revenue percentage by jurisdiction for private companies that lack direct reporting under FactSet's GeoRev function. We used the World Bank's classification in categorizing South Centre Member Countries into different regions.

- **2017 NAICS Codes:** The North American Industry Classification System (NAICS) was developed by statistical agencies of Canada, Mexico, and the U.S. for the collection, analysis and publication of statistical data related to the economy. We used 2017 NAICS codes as the industry classification standard to select ADS companies in industries relevant to the Article 12B.

- **Tax Foundation:** We obtained the corporate income tax rate by country from 2018 to 2020 from the Tax Foundation to compute the tax revenues under Amount A and the tax revenues under Article 12B net method.

- **Factiva:** Factiva is a business information and research tool owned by Dow Jones & Company. We obtained the USD/EUR exchange rates from Factiva. In particular, the exchange rates in 2020, 2019 and 2018 are computed as the average of the daily exchange rates at close in those years.

APPENDIX B: SOUTH CENTRE MEMBER COUNTRIES

The South Centre is consisted of 54 developing country Members from Africa, Asia, and Latin America and the Caribbean. Table 12 provides the list of South Centre Members by region as defined by the World Bank classification (i.e., East Asia & Pacific, Latin America & Caribbean, Middle East & North Africa, South Asia, and Sub-Saharan Africa). The South Centre Members include large developing countries such as China, India, Brazil, and Indonesia that have GDP above $1 trillion in 2020 as well as small countries that have GDP below $10 billion. 25 out of the 54 South Centre Members are also African Union Member States. Further, all South Centre Member Countries located in the Sub-Saharan Africa region are also African Union Member States.

Table 12: South Centre Developing Members (54) by Region

East Asia & Pacific (8)	Latin America & Caribbean (14)	Middle East & North Africa (8)	South Asia (3)	Sub-Saharan Africa (21)
Cambodia China North Korea Indonesia Malaysia Micronesia Philippines Viet Nam	Argentina Barbados Bolivia Brazil Cuba Dominican Republic Ecuador Guyana Honduras Jamaica Nicaragua Panama Suriname Venezuela	Algeria* Egypt* Iran Iraq Jordan State of Libya* Morocco* State of Palestine	India Pakistan Sri Lanka	Angola* Benin* Burundi* Cabo Verde* Côte d'Ivoire* Gabon* Ghana* Liberia* Malawi* Mali* Mauritius* Mozambique* Namibia* Nigeria* Seychelles* Sierra Leone* South Africa* Sudan* Tanzania* Uganda* Zimbabwe*

*African Union Member States

APPENDIX C: AFRICAN UNION MEMBER COUNTRIES

The African Union is comprised of 55 Member States representing all the countries on the African Continent. Table 13 provides the African Union Member States by region (i.e., Central Africa, Eastern Africa, Northern Africa, Southern Africa, and Western Africa).

Table 13: African Union Member States (55) by Region

Central Africa (9)	Eastern Africa (14)	Northern Africa (7)	Southern Africa (10)	Western Africa (15)
Burundi*	Comoros	Algeria*	Angola*	Benin*
Cameroon	Djibouti	Egypt*	Botswana	Burkina Faso
Central African Republic	Eritrea	Libya*	Eswatini	Cabo Verde*
Chad	Ethiopia	Mauritania	Lesotho	Côte d'Ivoire*
Congo Republic	Kenya	Morocco*	Malawi*	Gambia
DR Congo	Madagascar	Sahrawi Republic	Mozambique*	Ghana*
Equatorial Guinea	Mauritius*	Tunisia	Namibia*	Guinea
Gabon*	Rwanda		South Africa*	Guinea-Bissau
São Tomé and Príncipe	Seychelles*		Zambia	Liberia*
	Somalia		Zimbabwe*	Mali*
	South Sudan			Niger
	Sudan*			Nigeria*
	Tanzania*			Senegal
	Uganda*			Sierra Leone*
				Togo

*South Centre Member Countries

APPENDIX D: CORPORATE INCOME TAX RATE (2018 – 2020)[34]

#	Country	2020 Tax Rate (%)	2019 Tax Rate (%)	2018 Tax Rate (%)
1	Algeria	26	26	26
2	Angola	30	30	30
3	Argentina	30	30	30
4	Barbados	5.5	5.5	30
5	Benin	30	30	30
6	Bolivia	25	25	25
7	Botswana	22	22	22
8	Brazil	34	34	34
9	Burkina Faso	28	28	28
10	Burundi	30	30	30
11	Cabo Verde	22	22	25
12	Cambodia	20	20	20
13	Cameroon	33	33	33
14	Central African Republic	30	30	30
15	Chad	35	35	35
16	China	25	25	25
17	Comoros	50	50	50
18	Democratic Republic of the Congo	35	35	35
19	Cote d'Ivoire	25	25	25
20	Cuba	35	35	35
21	Democratic People's Republic of Korea (North Korea)	n.a	n.a	n.a
22	Djibouti	25	25	25
23	Dominican Republic	27	27	27
24	Congo	30	30	30
25	Ecuador	25	25	25
26	Egypt	22.5	22.5	23
27	Equatorial Guinea	35	35	35
28	Eritrea	30	30	30
29	Swaziland	27.5	27.5	28
30	Ethiopia	30	30	30
31	Gabon	30	30	30
32	Gambia	31	31	31
33	Ghana	25	25	25
34	Guinea	35	35	35
35	Guinea-Bissau	25	25	25
36	Guyana	25	25	27.5
37	Honduras	25	25	25
38	India	30	30	35

[34] Data obtained from Tax Foundation

#	Country	2020 Tax Rate (%)	2019 Tax Rate (%)	2018 Tax Rate (%)
39	Indonesia	25	25	25
40	Iran	25	25	25
41	Iraq	15	15	15
42	Jamaica	25	25	25
43	Jordan	20	20	20
44	Kenya	30	30	30
45	Lesotho	25	25	25
46	Liberia	25	25	25
47	Libya	20	20	20
48	Madagascar	20	20	20
49	Malawi	30	30	30
50	Malaysia	24	24	24
51	Mali	30	30	30
52	Mauritania	25	25	25
53	Mauritius	15	15	15
54	Micronesia	30	21	21
55	Morocco	31	31	31
56	Mozambique	32	32	32
57	Namibia	32	32	32
58	Nicaragua	30	30	30
59	Niger	30	30	30
60	Nigeria	30	30	30
61	Pakistan	29	29	30
62	Panama	25	25	25
63	Philippines	30	30	30
64	Rwanda	30	30	30
65	Sahrawi	n.a	n.a	n.a
66	Sao Tome and Principe	25	25	25
67	Senegal	30	30	30
68	Seychelles	33	33	33
69	Sierra Leone	30	30	30
70	Somalia	n.a	n.a	n.a
71	South Africa	28	28	28
72	South Sudan	25	25	25
73	Sri Lanka	28	28	28
74	Palestine	15	15	15
75	Sudan	35	35	35
76	Suriname	36	36	36
77	Tanzania	30	30	30
78	Togo	27	28	28
79	Tunisia	25	25	25
80	Uganda	30	30	30
81	Venezuela	34	34	34

#	Country	2020 Tax Rate (%)	2019 Tax Rate (%)	2018 Tax Rate (%)
82	Vietnam	20	20	20
83	Zambia	35	35	35
84	Zimbabwe	24.72	25.75	25.75

APPENDIX E: TAX REVENUES UNDER AMOUNT A VS ARTICLE 12B

The following Exhibits provide the estimated tax revenues under Amount A and Article 12B (gross and net method). The low end of estimated tax revenues under Amount A (the orange bar) is determined when the sales threshold of 20 billion euros is applied (i.e., 76 in-scope MNEs) and the high end is determined when the sales threshold of 10 billion euros is used to screen for in-scope MNEs under Amount A (i.e., 155 in-scope MNEs). The low end of estimated tax revenues under Article 12B gross and net methods is determined when ADS companies were considered (i.e., 84 ADS companies), and the high end is determined when the combined ADS and hybrid ADS companies were included in the scope of Article 12B (i.e., 305 ADS and hybrid ADS companies). For Article 12B gross method, we provided two scenarios when the 3 percent tax rate is used (the dark blue bar) as well as when 4 percent of tax rate is applied (the light blue bar).

Exhibit 1: Tax Revenues Under Amount A and Article 12B for China (2018 – 2020)

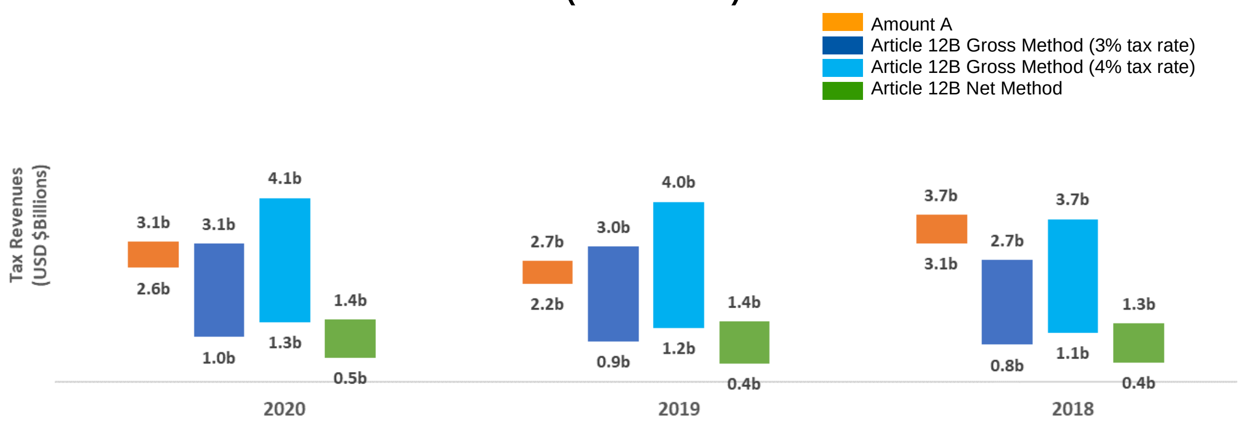


Exhibit 2: Tax Revenues Under Amount A and Article 12B for India (2018 – 2020)

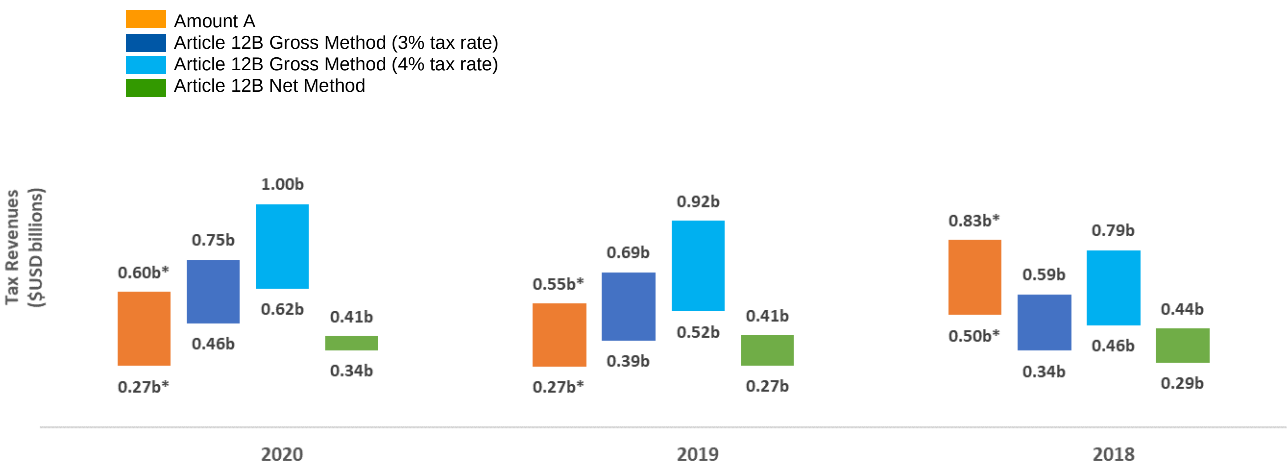


Exhibit 3: Tax Revenues Under Amount A and Article 12B for Brazil (2018 – 2020)

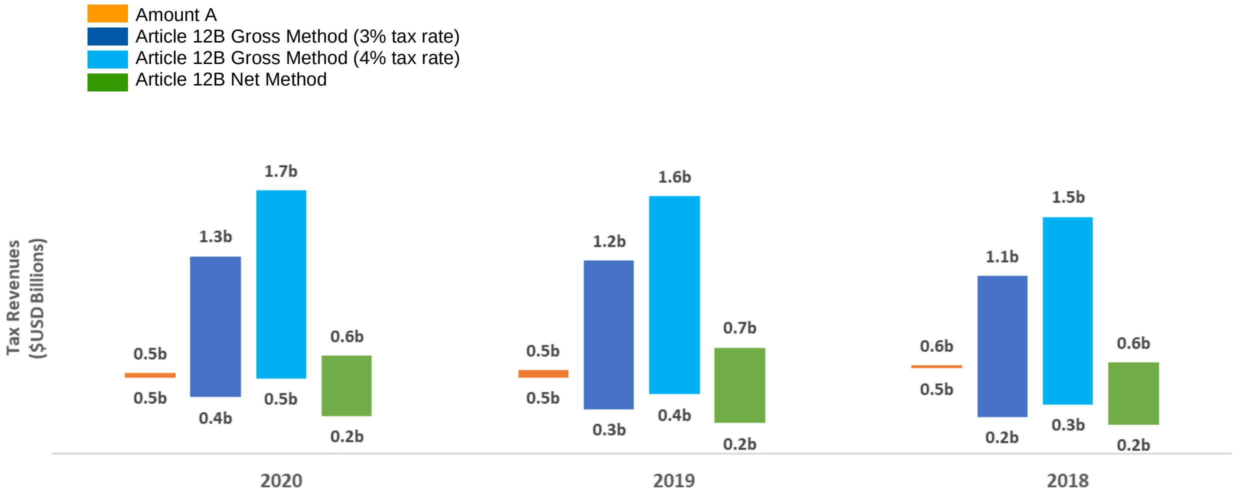
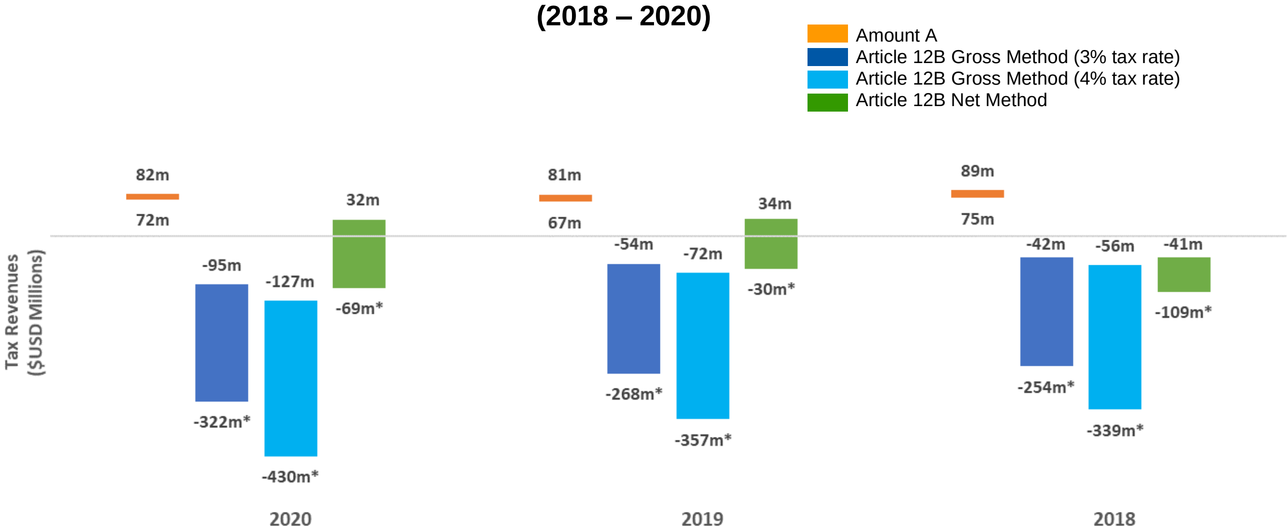
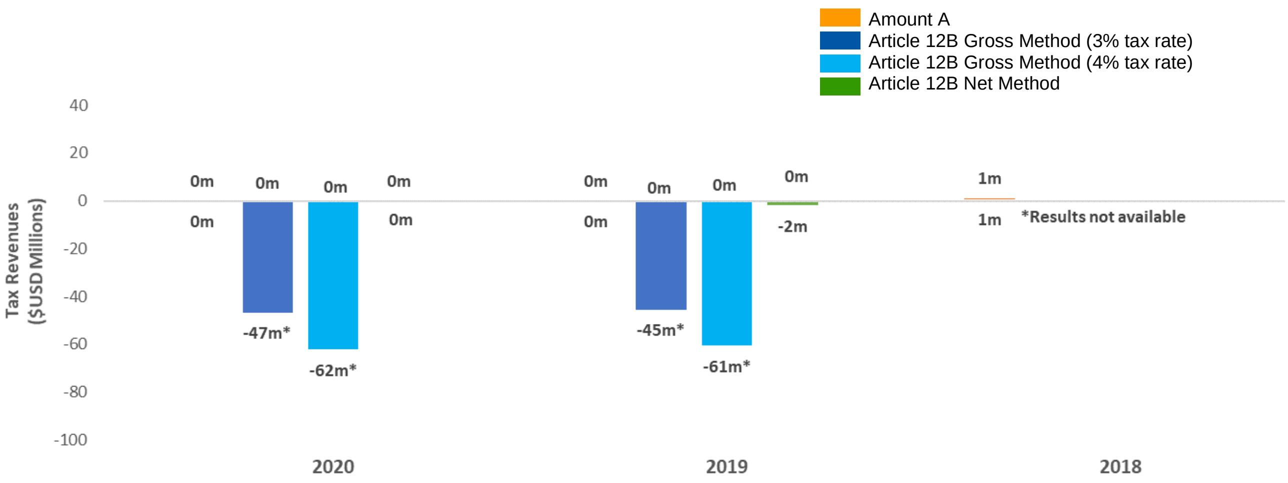


Exhibit 4: Tax Revenues Under Amount A and Article 12B for South Africa (2018 – 2020)



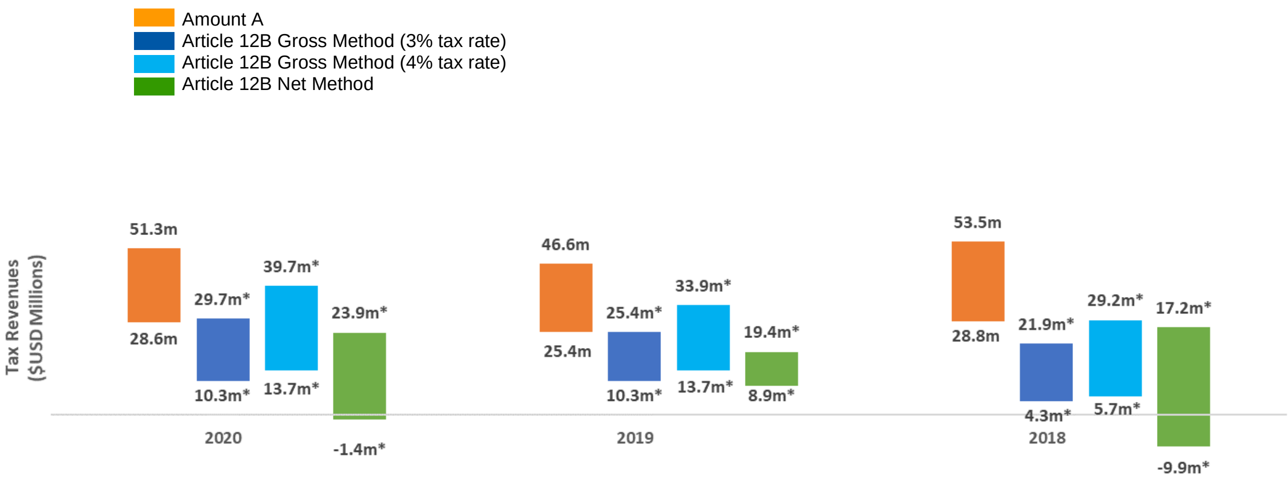
*For South Africa, tax revenues for Article 12B were lower when hybrid ADS companies were also in the scope of Article 12B regime

Exhibit 5: Tax Revenues Under Amount A and Article 12B for Barbados (2018 – 2020)



*For Barbados, tax revenues for Article 12B were lower when hybrid ADS companies were also in the scope of Article 12B regime. In 2018, the financials for Barbados-headquartered Article 12B company were not available.

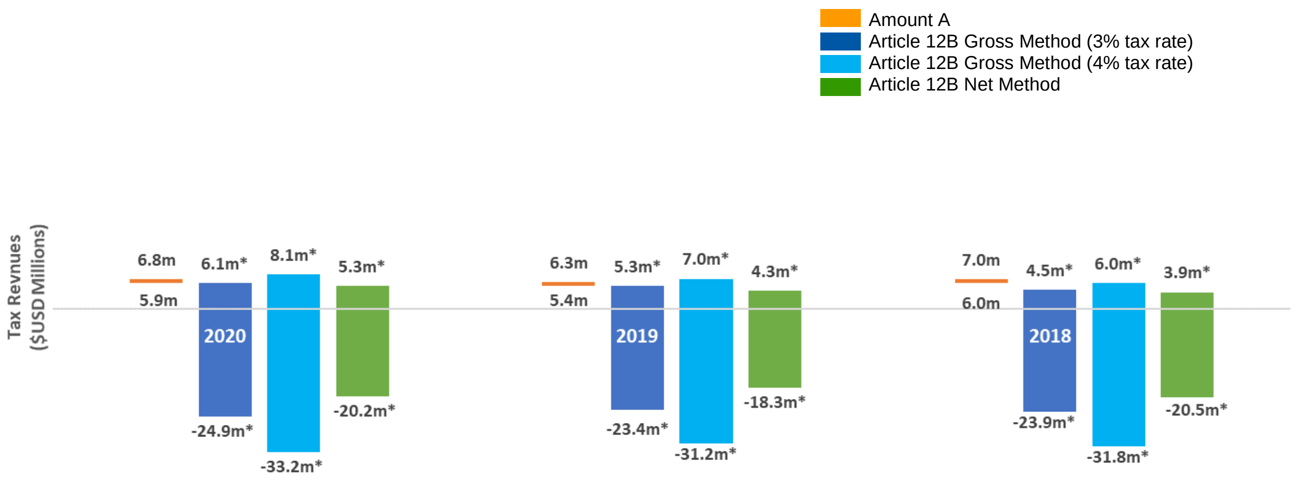
Exhibit 6: Tax Revenues Under Amount A and Article 12B for Morocco (2018 – 2020)



*Under Article 12B, lower revenues were estimated when a combined ADS and hybrid ADS companies were in scope.

Exhibit 7: Tax Revenues Under Amount A and Article 12B for Senegal

(2018 – 2020)



*Under Article 12B, lower revenues were estimated when a combined ADS and hybrid ADS companies were in scope.

Exhibit 8: Tax Revenues Under Amount A and Article 12B for Indonesia

(2018 – 2020)

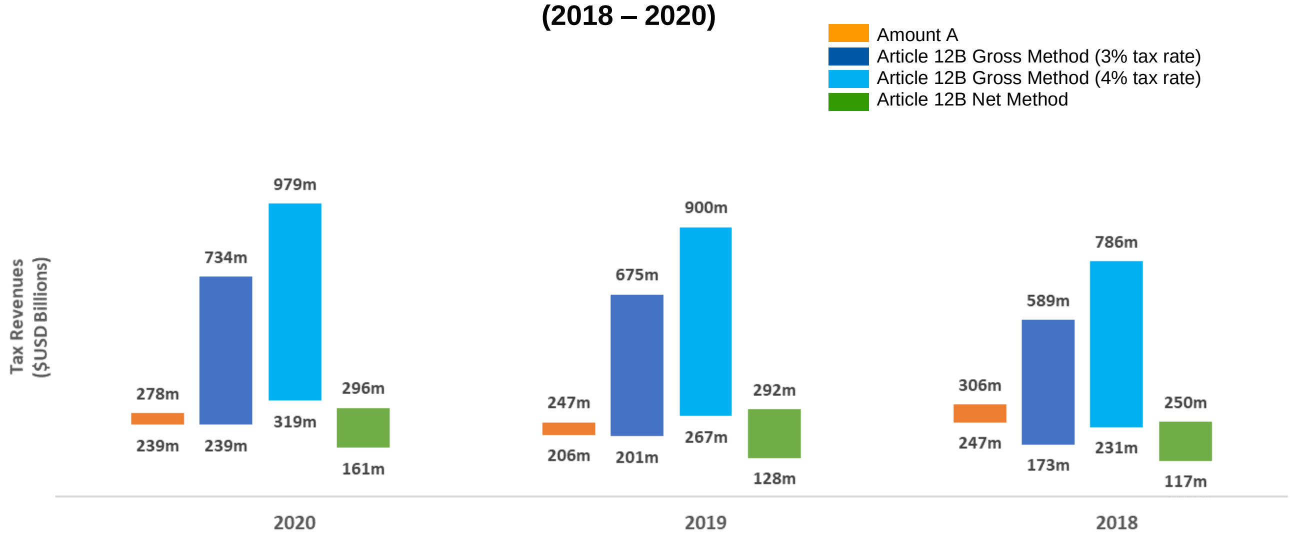


Exhibit 9: East Asia & Pacific Excl. China and Indonesia (6 Countries)

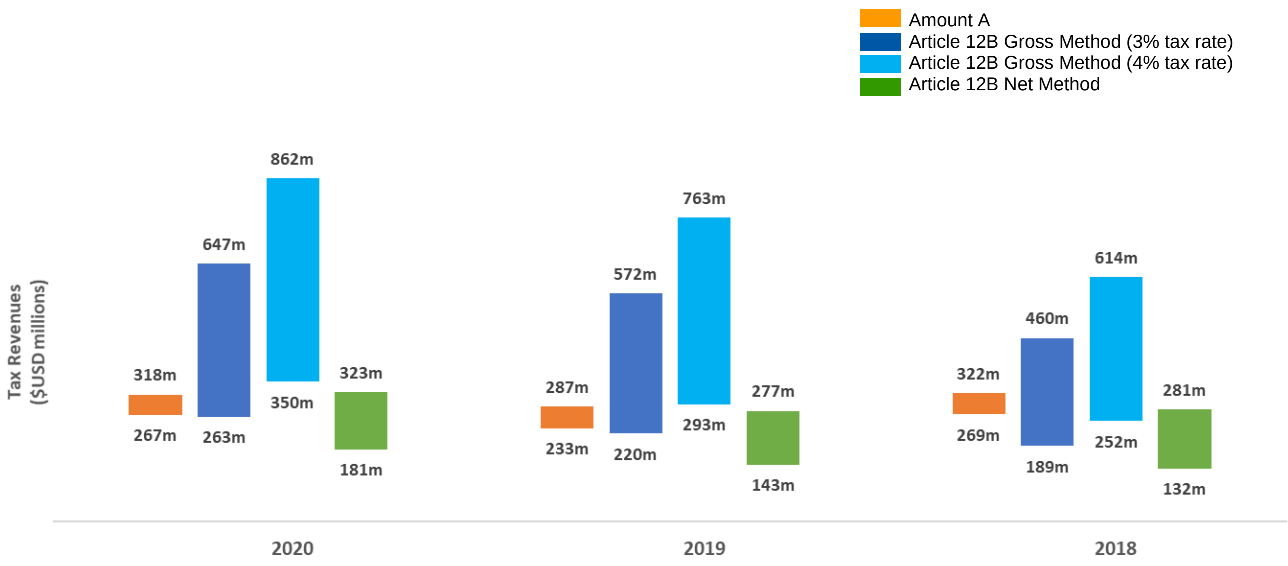


Exhibit 10: Latin America & Caribbean Excl. Brazil and Barbados (12 Countries) (2018 – 2020)

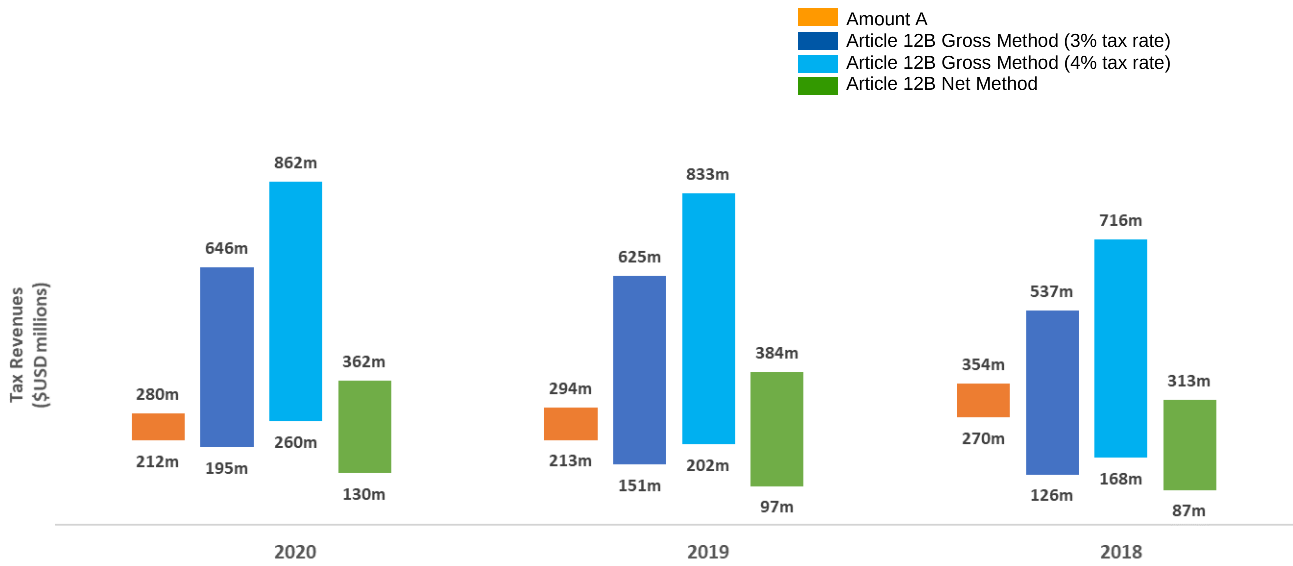


Exhibit 11: Middle East & North Africa Excl. Morocco (7 Countries) (2018 – 2020)

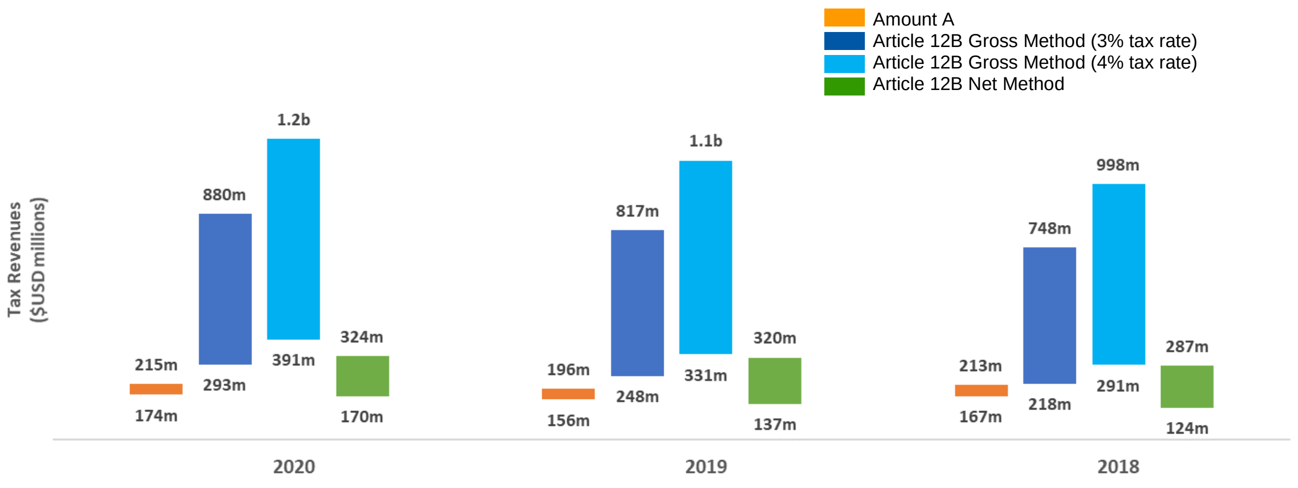


Exhibit 12: South Asia Excl. India (2 Countries) (2018 – 2020)

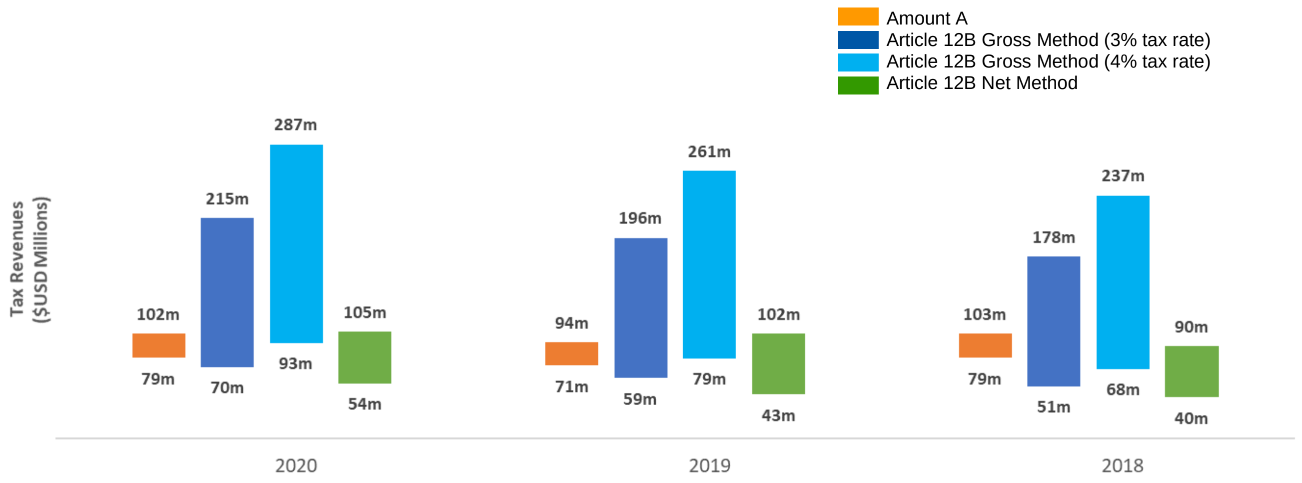


Exhibit 13: Tax Revenues Under Amount A and Article 12B for Nigeria (2018 – 2020)

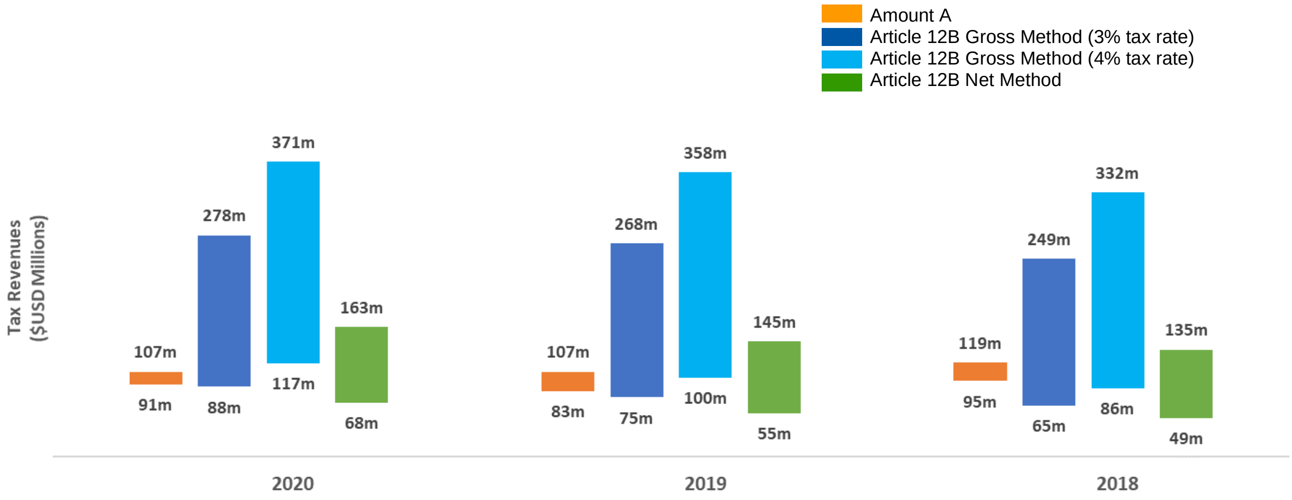


Exhibit 14: Sub-Saharan Africa Excl. Nigeria and South Africa (19 Countries) (2018 – 2020)

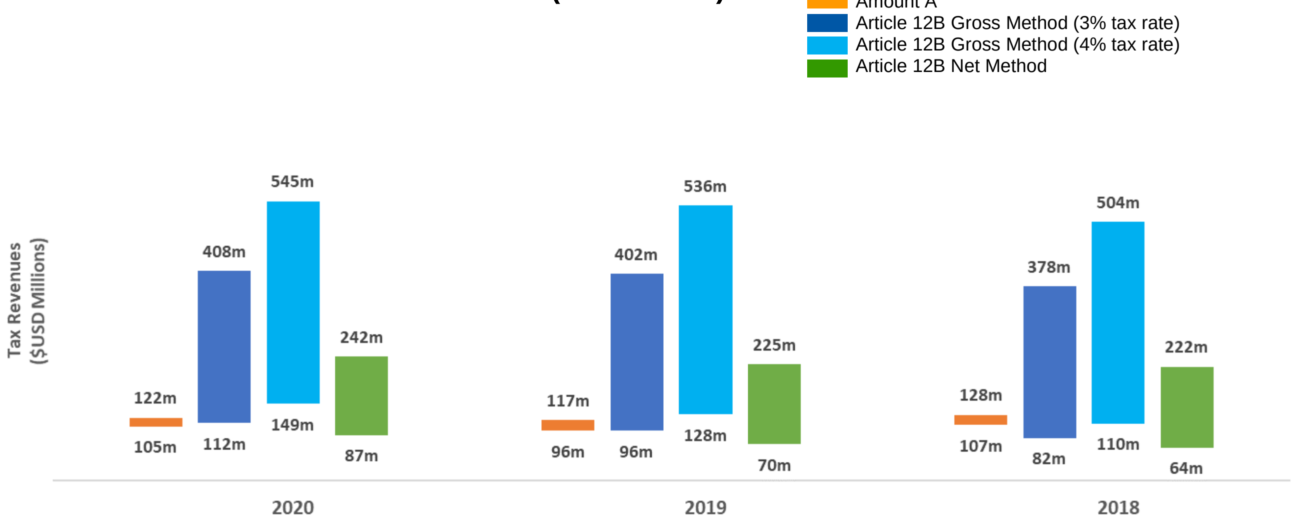


Exhibit 15: Central Africa (9 Countries)

(2018 – 2020)

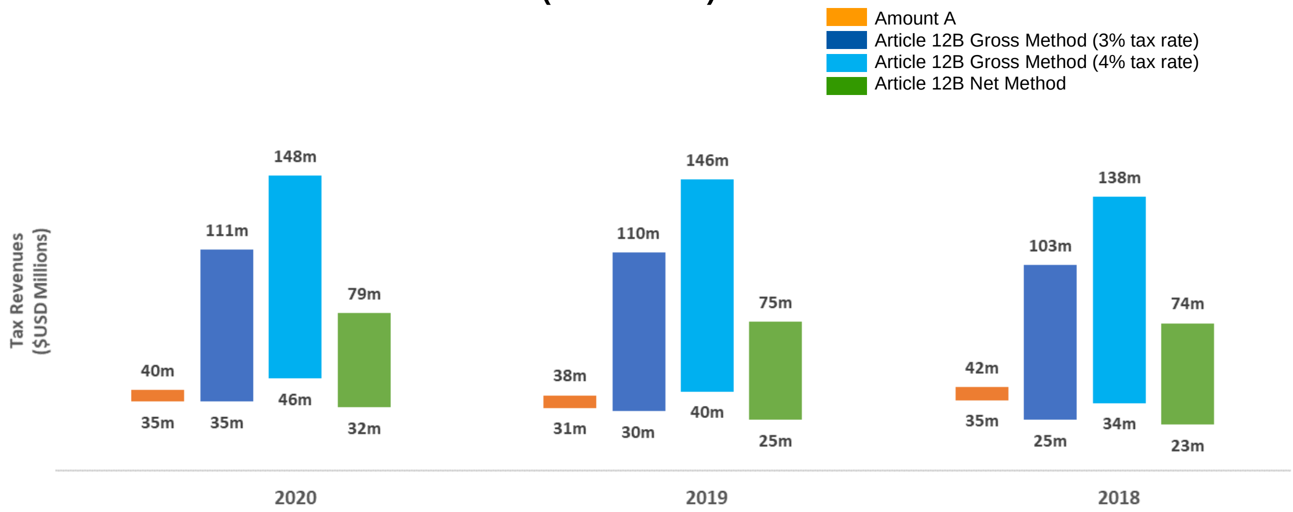


Exhibit 16: Eastern Africa (14 Countries)

(2018 – 2020)

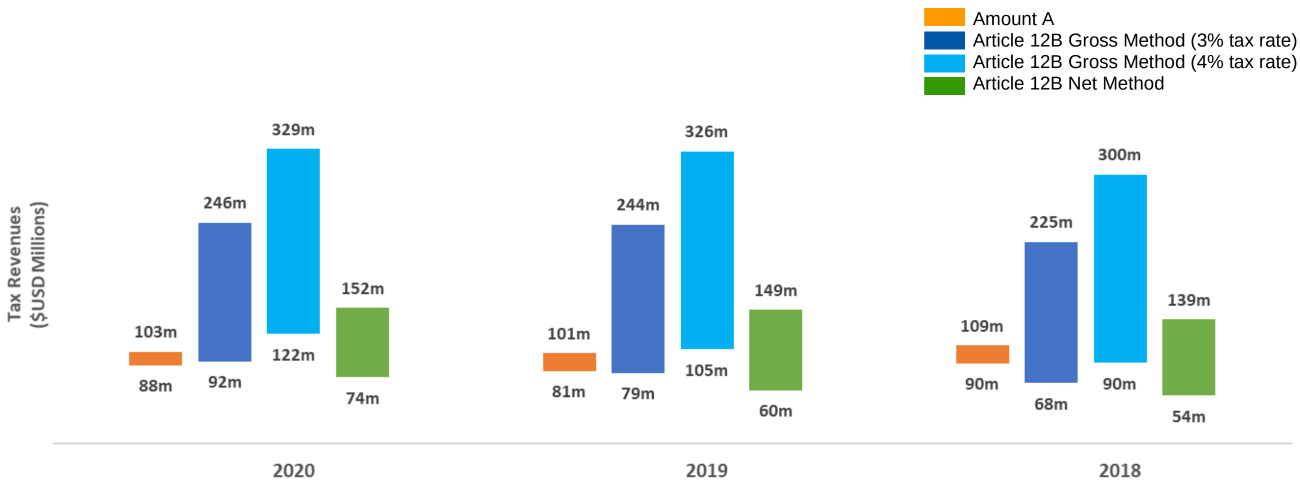


Exhibit 17: Tax Revenues Under Amount A and Article 12B for Egypt (2018 – 2020)

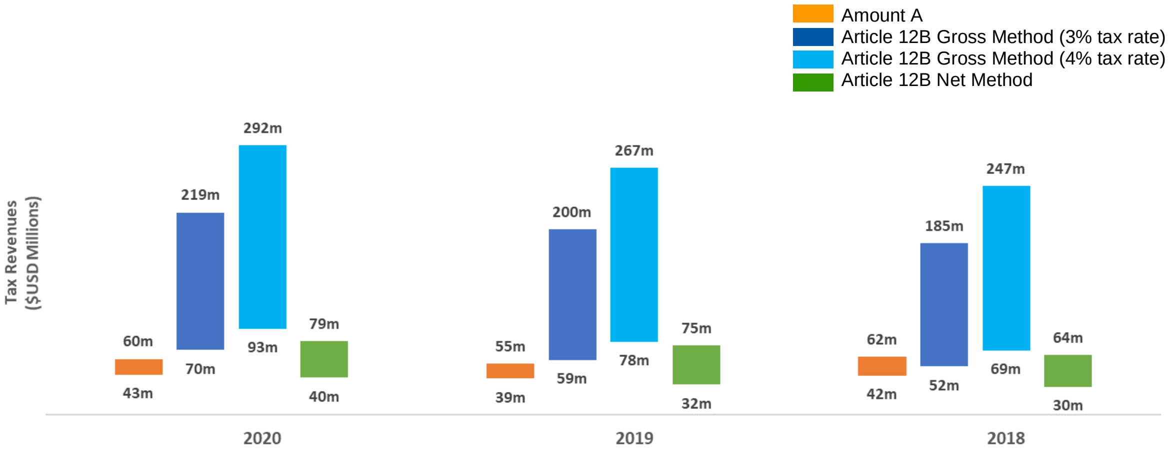


Exhibit 18: Northern Africa Excl. Egypt and Morocco (5 Countries) (2018 – 2020)

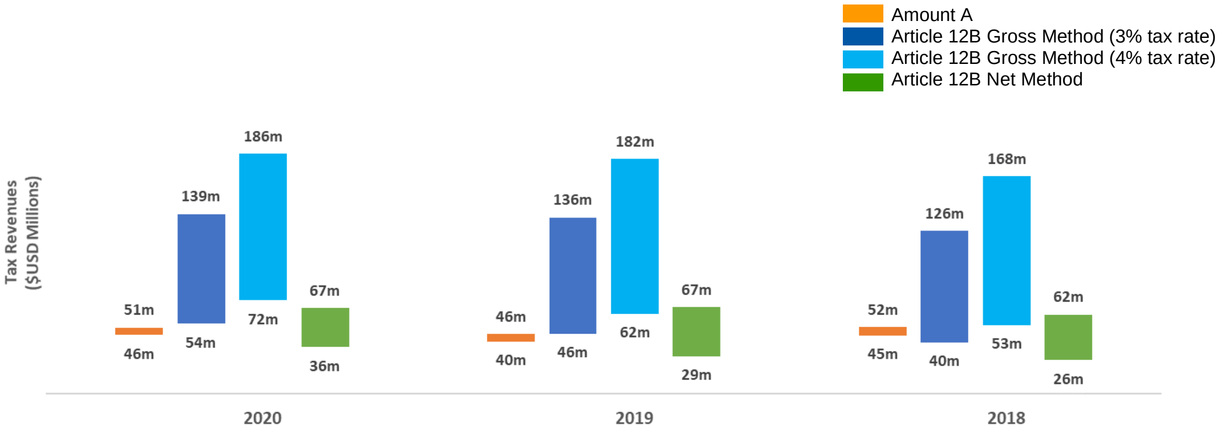


Exhibit 19: Southern Africa Excl. South Africa (9 Countries) (2018 – 2020)

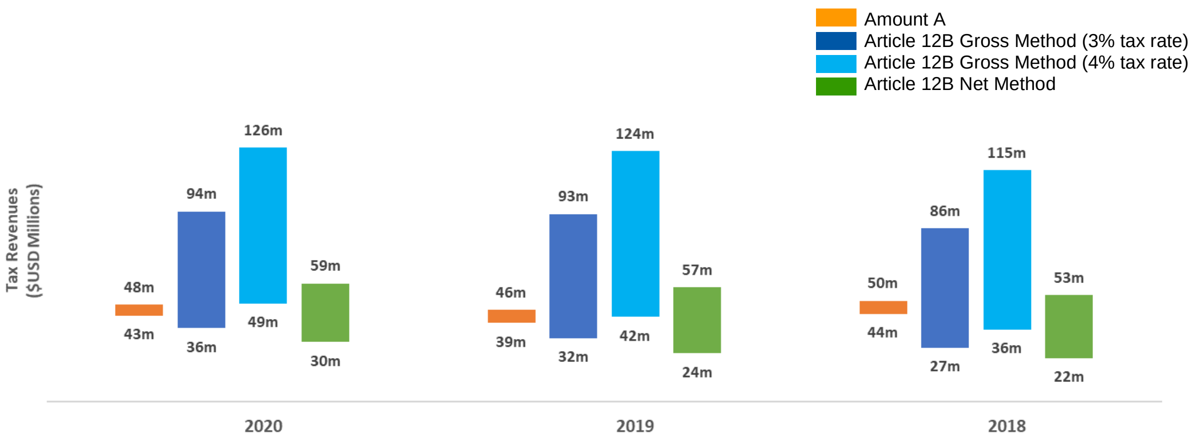
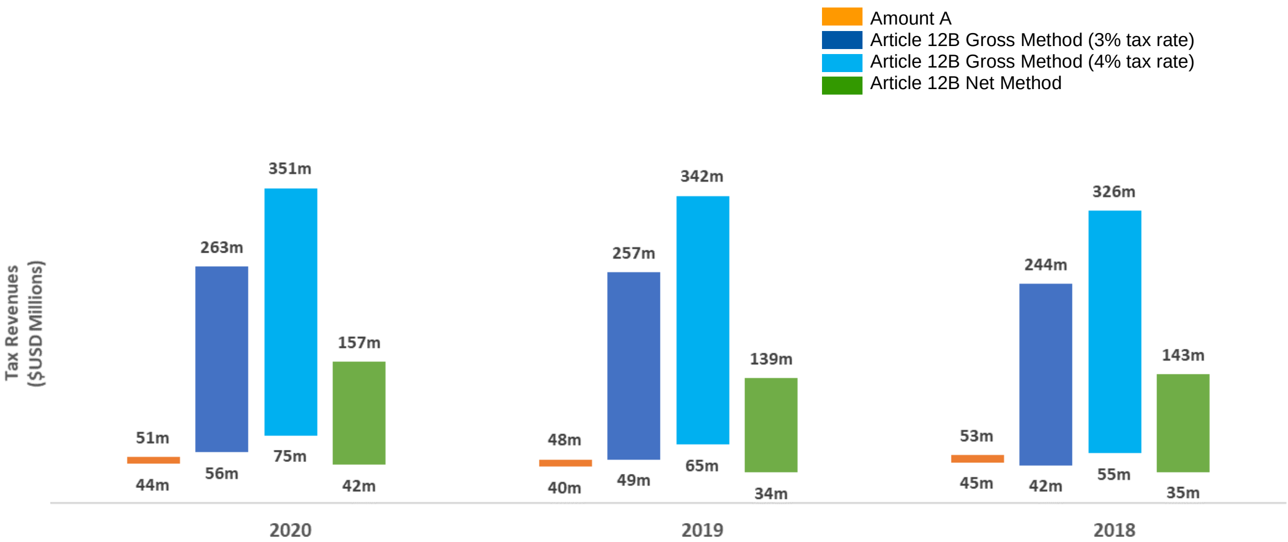


Exhibit 20: Western Africa Excl. Nigeria and Senegal (13 Countries) (2018 – 2020)



APPENDIX F: ESTIMATED TAX REVENUES BY COUNTRY AND YEAR

Table 14: Estimated Tax Revenues by Country in 2020

	2020	Amount A		Article 12B Gross Method @ 3% Tax		Article 12B Gross Method @ 4% Tax		Article 12B Net Method	
#	(USD$M)	20B Euro threshold	10B Euro threshold	ADS Only	ADS and Hybrid ADS	ADS Only	ADS and Hybrid ADS	ADS Only	ADS and Hybrid ADS
1	Algeria	34.7	38.8	36.5	96.7	48.6	128.9	24.6	46.0
2	Angola	21.5	24.2	16.4	34.4	21.9	45.9	13.2	22.3
3	Argentina	95.7	125.7	100.6	260.3	134.2	347.1	57.5	138.7
4	Barbados	0.1	0.1	0.1	(46.5)	0.1	(62.0)	0.0	0.1
5	Benin	3.1	3.6	3.7	19.0	4.9	25.4	3.3	12.3
6	Bolivia	8.7	12.1	7.4	32.7	9.9	43.7	5.4	14.6
7	Botswana	3.1	3.5	4.1	13.4	5.4	17.9	2.6	6.1
8	Brazil	490.0	519.6	362.0	1,266.1	482.7	1,688.1	241.5	630.4
9	Burkina Faso	3.7	4.2	4.1	13.6	5.5	18.2	3.4	9.3
10	Burundi	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0
11	Cabo Verde	-	-	0.0	0.0	0.0	0.0	0.0	0.0
12	Cambodia	7.6	8.6	6.6	27.3	8.8	36.3	4.3	7.5
13	Cameroon	10.3	12.3	11.0	33.9	14.7	45.2	9.7	22.1
14	Central African Republic	-	-	0.0	0.8	0.0	1.1	0.0	0.6
15	Chad	2.2	2.7	2.2	7.9	2.9	10.5	2.2	6.7
16	China	2,558.2	3,144.1	1,001.4	3,092.4	1,335.3	4,123.2	544.2	1,402.4
17	Comoros	-	-	0.0	0.0	0.0	0.0	0.0	0.0
18	Democratic Republic of the Congo	14.2	16.5	13.6	43.1	18.1	57.5	12.7	32.3
19	Cote d'Ivoire	12.4	14.6	17.4	70.6	23.2	94.1	11.7	38.3
20	Cuba	26.8	36.7	20.9	85.3	27.9	113.7	19.2	62.2
21	Democratic People's Republic of Korea (North Korea)	n.a	-	0.0	0.2	0.0	0.3	-	-
22	Djibouti	0.1	0.1	0.0	0.2	0.0	0.2	0.0	0.1
23	Dominican Republic	17.9	24.5	16.8	72.2	22.4	96.2	11.9	40.4
24	Congo	1.6	1.9	2.0	8.6	2.7	11.5	1.7	4.9
25	Ecuador	20.6	25.3	20.7	64.6	27.6	86.2	13.5	35.0
26	Egypt	42.9	60.1	69.7	218.7	92.9	291.6	39.8	79.0
27	Equatorial Guinea	2.2	2.6	1.9	3.5	2.6	4.7	1.9	2.8
28	Eritrea	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0
29	Swaziland	0.1	0.1	0.0	1.5	0.0	2.0	0.0	0.6
30	Ethiopia	23.8	27.8	23.9	50.9	31.9	67.9	19.1	32.5
31	Gabon	3.9	4.4	3.9	13.0	5.2	17.3	3.5	9.6
32	Gambia	-	-	0.0	0.0	0.0	0.0	0.0	0.0
33	Ghana	13.5	16.1	18.4	75.3	24.5	100.4	12.3	33.9
34	Guinea	3.3	3.8	3.5	27.1	4.7	36.1	3.6	21.4
35	Guinea-Bissau	-	-	0.0	2.0	0.0	2.6	0.0	1.1
36	Guyana	0.4	0.7	0.4	2.4	0.5	3.2	0.3	1.3
37	Honduras	4.5	6.7	4.4	15.9	5.9	21.2	3.3	9.1
38	India	604.0	273.0	462.5	747.2	616.7	996.3	342.4	407.2
39	Indonesia	238.6	278.2	239.0	734.2	318.7	978.9	161.4	295.8
40	Iran	62.6	77.5	120.4	309.0	160.6	412.0	76.6	137.0
41	Iraq	22.8	25.6	46.1	179.5	61.5	239.4	17.7	38.8
42	Jamaica	2.9	3.6	2.4	34.8	3.1	46.3	1.8	9.9
43	Jordan	6.4	7.4	11.4	51.8	15.2	69.1	6.0	15.9
44	Kenya	25.5	29.9	26.7	56.1	35.5	74.8	21.3	36.2
45	Lesotho	-	-	0.0	0.8	0.0	1.0	0.0	0.4
46	Liberia	-	0.0	0.0	1.5	0.0	2.0	0.0	0.6
47	Libya	3.4	3.9	5.5	14.8	7.3	19.7	3.1	5.2
48	Madagascar	2.0	2.3	3.2	6.4	4.2	8.5	1.9	3.0
49	Malawi	0.9	1.1	1.5	2.8	2.0	3.7	1.3	1.8
50	Malaysia	82.9	105.2	85.8	141.9	114.4	189.2	57.3	105.8
51	Mali	4.3	4.9	4.4	35.6	5.8	47.5	3.8	26.9
52	Mauritania	0.5	0.7	1.5	5.3	2.0	7.0	1.1	3.2
53	Mauritius	1.6	1.7	2.2	4.4	2.9	5.9	0.9	1.5
54	Micronesia	-	-	0.0	0.0	0.0	0.0	0.0	0.0
55	Morocco	28.6	51.3	29.7	10.3	39.7	13.7	23.9	(1.4)
56	Mozambique	4.2	4.7	2.6	10.9	3.5	14.5	2.4	7.6
57	Namibia	3.3	3.6	2.0	3.7	2.7	4.9	1.8	2.6
58	Nicaragua	1.9	3.2	1.6	6.7	2.1	8.9	1.4	4.4
59	Niger	2.7	3.1	3.4	11.2	4.5	14.9	3.0	8.3
60	Nigeria	90.9	107.1	88.1	278.3	117.5	371.0	68.0	162.8
61	Pakistan	49.3	68.1	47.2	136.9	63.0	182.5	34.8	71.9
62	Panama	13.4	18.4	11.8	44.5	15.7	59.4	7.7	25.9
63	Philippines	111.6	127.1	89.6	273.0	119.5	364.0	74.8	134.5
64	Rwanda	1.8	2.0	1.8	3.3	2.3	4.4	1.5	2.2
65	Sahrawi	n.a	-	-	-	-	-	-	-
66	Sao Tome and Principe	-	-	0.0	0.0	0.0	0.0	0.0	0.0
67	Senegal	5.9	6.8	6.1	(24.9)	8.1	(33.2)	5.3	(20.2)
68	Seychelles	-	-	0.0	0.0	0.0	0.0	0.0	0.0
69	Sierra Leone	0.1	0.1	0.0	2.7	0.1	3.6	0.0	2.0
70	Somalia	n.a	-	0.6	1.0	0.8	1.4	-	-
71	South Africa	71.8	81.7	(95.0)	(322.2)	(126.7)	(429.6)	32.4	(69.3)
72	South Sudan	-	0.0	0.0	1.5	0.1	2.1	0.0	0.6
73	Sri Lanka	29.5	34.1	22.8	78.4	30.4	104.5	19.2	32.7
74	Palestine	1.4	1.6	3.6	9.5	4.8	12.6	1.6	2.5
75	Sudan	8.3	9.8	7.9	35.0	10.5	46.7	8.1	21.2
76	Suriname	0.3	0.5	0.0	0.4	0.1	0.6	0.0	0.4
77	Tanzania	15.8	18.5	16.4	53.7	21.8	71.7	13.1	34.3
78	Togo	0.4	0.6	1.4	4.6	1.9	6.2	1.1	3.1
79	Tunisia	6.8	8.2	10.9	22.5	14.5	30.0	7.3	12.2
80	Uganda	8.7	10.4	9.1	33.8	12.1	45.0	8.0	20.0
81	Venezuela	19.0	22.3	7.7	26.6	10.3	35.5	7.6	20.0
82	Vietnam	64.8	77.3	80.5	204.4	107.3	272.5	44.7	75.6
83	Zambia	6.2	6.9	4.2	15.0	5.6	20.0	4.3	10.5
84	Zimbabwe	3.4	4.0	5.6	11.8	7.5	15.7	4.1	6.8

Table 15: Estimated Tax Revenues by Country in 2019

	2019	Amount A		Article 12B Gross Method @ 3% Tax		Article 12B Gross Method @ 4% Tax		Article 12B Net Method	
#	(USD$M)	20B Euro threshold	10B Euro threshold	ADS Only	ADS and Hybrid ADS	ADS Only	ADS and Hybrid ADS	ADS Only	ADS and Hybrid ADS
1	Algeria	30.7	34.8	31.2	96.1	41.6	128.2	20.0	47.5
2	Angola	19.4	23.2	14.1	33.9	18.8	45.2	10.6	22.2
3	Argentina	95.6	134.1	76.2	245.9	101.6	327.9	43.6	142.5
4	Barbados	0.1	0.1	0.0	(45.4)	0.0	(60.6)	0.0	(1.9)
5	Benin	2.9	3.4	3.2	18.6	4.3	24.8	2.7	10.3
6	Bolivia	8.6	12.6	6.0	33.4	8.0	44.6	4.0	21.0
7	Botswana	2.9	3.3	3.5	13.1	4.7	17.5	2.1	5.4
8	Brazil	489.8	534.1	285.6	1,237.2	380.8	1,649.6	195.2	681.3
9	Burkina Faso	3.3	3.8	3.6	13.4	4.8	17.9	2.7	8.3
10	Burundi	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0
11	Cabo Verde	-	-	0.0	0.0	0.0	0.0	0.0	0.0
12	Cambodia	6.8	8.0	5.6	25.2	7.5	33.6	3.3	8.2
13	Cameroon	9.3	12.1	9.4	33.2	12.6	44.2	7.8	20.3
14	Central African Republic	-	-	0.0	0.8	0.0	1.1	0.0	0.5
15	Chad	2.1	2.5	1.9	7.8	2.5	10.4	1.8	5.9
16	China	2,205.2	2,710.1	904.0	3,030.8	1,205.3	4,041.0	414.2	1,352.4
17	Comoros	-	-	0.0	0.0	0.0	0.0	0.0	0.0
18	Democratic Republic of the Congo	12.9	15.1	11.6	43.1	15.5	57.4	10.2	32.5
19	Cote d'Ivoire	11.4	13.5	14.9	69.1	19.9	92.1	9.3	33.3
20	Cuba	26.6	38.1	16.7	83.5	22.2	111.3	14.2	65.3
21	Democratic People's Republic of Korea (North Korea)	n.a	-	0.0	0.2	0.0	0.2	-	-
22	Djibouti	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.0
23	Dominican Republic	17.7	25.2	13.4	70.5	17.9	94.0	8.8	42.5
24	Congo	1.5	1.8	1.7	8.4	2.3	11.2	1.3	4.3
25	Ecuador	23.9	29.0	16.5	63.4	22.0	84.6	10.0	35.7
26	Egypt	38.6	55.0	58.8	200.0	78.4	266.7	32.3	74.6
27	Equatorial Guinea	2.0	2.4	1.7	3.5	2.2	4.6	1.5	2.7
28	Eritrea	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
29	Swaziland	0.1	0.2	0.0	1.4	0.0	1.9	0.0	0.5
30	Ethiopia	22.0	27.5	20.5	50.2	27.3	67.0	15.4	32.4
31	Gabon	3.5	4.1	3.4	12.8	4.5	17.1	2.8	8.5
32	Gambia	-	-	0.0	0.0	0.0	0.0	0.0	0.0
33	Ghana	12.5	16.0	15.7	73.5	21.0	98.0	9.8	29.9
34	Guinea	2.9	3.5	3.1	26.2	4.1	34.9	2.9	19.3
35	Guinea-Bissau	-	-	0.0	1.9	0.0	2.5	0.0	1.0
36	Guyana	0.4	0.7	0.3	2.3	0.4	3.1	0.2	1.3
37	Honduras	5.3	7.9	3.6	15.8	4.8	21.1	2.4	9.5
38	India	552.9	271.3	387.2	692.0	516.3	922.6	274.9	411.9
39	Indonesia	205.8	247.5	200.6	675.3	267.4	900.4	127.8	291.9
40	Iran	56.0	71.3	101.7	278.3	135.6	371.1	62.2	131.8
41	Iraq	20.4	23.3	39.2	171.2	52.2	228.3	14.4	41.5
42	Jamaica	2.5	3.2	1.9	33.4	2.5	44.6	1.3	13.5
43	Jordan	5.8	6.9	9.6	49.4	12.9	65.9	4.8	16.6
44	Kenya	23.5	29.6	22.8	55.3	30.4	73.7	17.2	36.1
45	Lesotho	-	-	0.0	0.8	0.0	1.0	0.0	0.4
46	Liberia	-	0.0	0.0	1.4	0.0	1.9	0.0	0.4
47	Libya	3.0	3.4	4.7	13.1	6.3	17.5	2.5	5.1
48	Madagascar	1.9	2.1	2.8	6.3	3.7	8.4	1.5	3.0
49	Malawi	0.9	1.0	1.3	2.8	1.7	3.7	1.0	1.7
50	Malaysia	70.2	92.3	71.8	115.9	95.8	154.5	45.1	76.4
51	Mali	3.9	4.5	3.8	34.6	5.1	46.1	3.1	24.6
52	Mauritania	0.5	0.7	1.3	5.2	1.7	6.9	0.8	2.7
53	Mauritius	1.4	1.5	1.9	4.4	2.5	5.9	0.8	1.5
54	Micronesia	-	-	0.0	0.0	0.0	0.0	0.0	0.0
55	Morocco	25.4	46.6	25.4	10.3	33.9	13.7	19.4	8.9
56	Mozambique	3.9	4.4	2.3	11.0	3.1	14.7	1.9	7.7
57	Namibia	2.9	3.2	1.8	3.6	2.3	4.8	1.5	2.5
58	Nicaragua	1.7	3.2	1.2	6.7	1.6	8.9	1.0	4.6
59	Niger	2.5	2.9	3.0	11.0	3.9	14.6	2.4	7.3
60	Nigeria	82.7	107.0	74.8	268.4	99.8	357.8	55.1	145.1
61	Pakistan	44.5	62.0	39.8	124.7	53.1	166.3	28.2	68.7
62	Panama	13.3	19.3	9.4	43.1	12.6	57.5	5.7	27.6
63	Philippines	96.5	113.9	75.1	246.8	100.1	329.1	58.9	122.9
64	Rwanda	1.6	2.0	1.5	3.2	2.0	4.3	1.2	2.1
65	Sahrawi	n.a	-	-	-	-	-	-	-
66	Sao Tome and Principe	-	-	0.0	0.0	0.0	0.0	0.0	0.0
67	Senegal	5.4	6.3	5.3	(23.4)	7.0	(31.2)	4.3	(18.3)
68	Seychelles	-	-	0.0	0.0	0.0	0.0	0.0	0.0
69	Sierra Leone	0.1	0.1	0.0	2.6	0.0	3.5	0.0	1.9
70	Somalia	n.a	-	0.5	1.0	0.7	1.4	-	-
71	South Africa	66.6	81.3	(54.0)	(268.0)	(72.0)	(357.4)	33.7	(29.9)
72	South Sudan	-	0.0	0.0	1.5	0.0	2.0	0.0	0.4
73	Sri Lanka	26.8	32.3	19.2	71.3	25.6	95.0	14.9	33.7
74	Palestine	1.3	1.5	3.1	8.4	4.2	11.2	1.3	2.5
75	Sudan	7.5	8.9	6.9	35.2	9.2	46.9	6.5	21.4
76	Suriname	0.2	0.4	0.0	0.4	0.0	0.5	0.0	0.3
77	Tanzania	14.6	18.4	14.0	53.7	18.7	71.6	10.5	34.5
78	Togo	0.5	0.6	1.2	4.5	1.6	6.0	0.9	2.6
79	Tunisia	6.2	7.5	9.3	22.1	12.4	29.4	5.8	12.1
80	Uganda	8.2	10.5	7.9	33.2	10.5	44.3	6.4	18.0
81	Venezuela	17.2	20.8	6.2	26.4	8.3	35.2	5.6	20.4
82	Vietnam	59.7	73.1	67.5	184.1	89.9	245.4	35.2	69.8
83	Zambia	5.8	6.4	3.6	14.7	4.9	19.6	3.5	9.3
84	Zimbabwe	3.2	3.8	4.9	11.7	6.5	15.6	3.4	6.9

Table 16: Estimated Tax Revenues by Country in 2018

#	2018 (USD$M)	Amount A		Article 12B Gross Method @ 3% Tax		Article 12B Gross Method @ 4% Tax		Article 12B Net Method	
		20B Euro threshold	10B Euro threshold	ADS Only	ADS and Hybrid ADS	ADS Only	ADS and Hybrid ADS	ADS Only	ADS and Hybrid ADS
1	Algeria	34.8	39.2	26.8	89.5	35.8	119.3	17.7	42.5
2	Angola	21.8	25.5	12.1	30.9	16.1	41.1	9.5	20.4
3	Argentina	112.3	151.7	62.1	219.9	82.8	293.1	38.6	122.2
4	Barbados	0.7	1.2	0.0	3.1	0.0	4.1	0.0	1.8
5	Benin	3.3	3.8	2.8	17.8	3.7	23.7	2.4	11.1
6	Bolivia	11.5	15.6	5.1	30.5	6.8	40.7	3.7	18.0
7	Botswana	3.2	3.6	3.0	12.2	4.0	16.3	1.9	5.0
8	Brazil	546.9	568.6	237.2	1,139.9	316.3	1,519.8	186.1	585.7
9	Burkina Faso	3.8	4.3	3.1	12.7	4.1	16.9	2.5	9.1
10	Burundi	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0
11	Cabo Verde	-	-	0.0	0.0	0.0	0.0	0.0	0.0
12	Cambodia	7.6	8.8	4.8	22.7	6.3	30.3	3.2	5.5
13	Cameroon	10.4	13.1	8.1	30.8	10.8	41.1	7.0	18.9
14	Central African Republic	-	-	0.0	0.8	0.0	1.1	0.0	0.7
15	Chad	2.4	2.8	1.6	7.4	2.2	9.9	1.6	6.8
16	China	3,110.7	3,744.1	829.0	2,738.7	1,105.3	3,651.5	437.1	1,307.8
17	Comoros	-	-	0.0	0.0	0.0	0.0	0.0	0.0
18	Democratic Republic of the Congo	14.4	16.7	10.0	40.9	13.3	54.6	9.2	31.8
19	Cote d'Ivoire	12.8	15.0	12.8	65.6	17.1	87.4	8.4	36.2
20	Cuba	36.1	49.0	14.2	71.5	18.9	95.3	12.9	52.4
21	Democratic People's Republic of Korea (North Korea)	n.a	-	0.0	0.2	0.0	0.2	-	-
22	Djibouti	0.1	0.1	0.0	0.1	0.0	0.2	0.0	0.0
23	Dominican Republic	24.0	32.4	11.4	59.9	15.2	79.8	8.0	33.8
24	Congo	1.7	2.0	1.4	7.9	1.9	10.5	1.2	4.0
25	Ecuador	28.3	33.1	14.0	57.4	18.7	76.5	9.1	29.3
26	Egypt	41.9	62.0	51.8	185.4	69.1	247.2	29.6	64.0
27	Equatorial Guinea	2.4	2.7	1.4	3.1	1.9	4.2	1.4	2.4
28	Eritrea	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
29	Swaziland	0.1	0.2	0.0	1.4	0.0	1.8	0.0	0.4
30	Ethiopia	24.4	29.8	17.6	45.7	23.5	61.0	13.9	29.7
31	Gabon	4.0	4.5	2.9	12.1	3.9	16.1	2.5	9.4
32	Gambia	-	-	0.0	0.0	0.0	0.0	0.0	0.0
33	Ghana	13.8	17.3	13.5	69.2	18.0	92.3	8.9	26.8
34	Guinea	3.4	4.0	2.6	25.1	3.5	33.5	2.7	19.3
35	Guinea-Bissau	-	-	0.0	1.8	0.0	2.5	0.0	1.0
36	Guyana	0.9	1.3	0.2	2.0	0.3	2.7	0.2	1.1
37	Honduras	6.3	9.1	3.0	14.4	4.0	19.2	2.2	7.9
38	India	834.9	499.3	341.7	592.8	455.6	790.4	288.4	439.9
39	Indonesia	247.2	306.0	173.4	589.5	231.2	785.9	117.4	250.0
40	Iran	59.3	75.5	89.6	252.5	119.5	336.6	55.7	121.6
41	Iraq	21.2	24.3	34.3	156.9	45.7	209.2	12.9	36.5
42	Jamaica	3.8	4.5	1.6	12.9	2.1	17.2	1.2	6.8
43	Jordan	6.0	7.1	8.5	44.7	11.3	59.6	4.4	15.0
44	Kenya	26.0	32.0	19.6	50.2	26.1	67.0	15.4	33.0
45	Lesotho	-	-	0.0	0.8	0.0	1.1	0.0	0.4
46	Liberia	-	-	0.0	1.4	0.0	1.8	0.0	0.4
47	Libya	3.1	3.6	4.1	11.9	5.5	15.9	2.3	4.7
48	Madagascar	2.1	2.4	2.4	5.7	3.2	7.7	1.4	2.7
49	Malawi	0.9	1.1	1.1	2.5	1.4	3.3	0.9	1.6
50	Malaysia	83.6	103.7	61.7	86.2	82.2	114.9	41.9	100.9
51	Mali	4.4	5.0	3.3	33.5	4.4	44.6	2.8	26.3
52	Mauritania	0.5	0.7	1.1	4.9	1.4	6.5	0.8	3.2
53	Mauritius	1.6	1.7	1.6	4.0	2.2	5.3	0.7	1.4
54	Micronesia	-	-	0.0	0.0	0.0	0.0	0.0	0.0
55	Morocco	28.8	53.5	21.9	4.3	29.2	5.7	17.2	(9.9)
56	Mozambique	4.4	4.8	2.0	10.6	2.6	14.2	1.8	7.7
57	Namibia	3.3	3.6	1.5	3.3	2.0	4.4	1.4	2.3
58	Nicaragua	2.8	4.3	1.0	6.1	1.4	8.1	0.9	3.8
59	Niger	2.8	3.3	2.5	10.4	3.4	13.9	2.2	8.1
60	Nigeria	95.2	118.8	64.9	249.2	86.5	332.2	48.7	134.6
61	Pakistan	48.6	67.4	35.2	114.9	46.9	153.2	26.2	65.1
62	Panama	17.9	24.0	8.0	38.5	10.7	51.3	5.2	21.2
63	Philippines	108.8	127.8	64.5	195.0	86.0	259.9	54.7	109.8
64	Rwanda	1.9	2.3	1.3	2.9	1.7	3.8	1.1	1.9
65	Sahrawi	n.a	-	-	-	-	-	-	-
66	Sao Tome and Principe	-	-	0.0	0.0	0.0	0.0	0.0	0.0
67	Senegal	6.0	7.0	4.5	(23.9)	6.0	(31.8)	3.9	(20.5)
68	Seychelles	-	-	0.0	0.0	0.0	0.0	0.0	0.0
69	Sierra Leone	0.1	0.1	0.0	2.5	0.0	3.4	0.0	1.9
70	Somalia	n.a	-	0.5	0.9	0.6	1.2	-	-
71	South Africa	74.6	89.0	(42.2)	(254.0)	(56.2)	(338.7)	(40.9)	(108.9)
72	South Sudan	-	0.0	0.0	1.4	0.0	1.9	0.0	0.4
73	Sri Lanka	30.3	35.4	16.1	63.1	21.5	84.1	14.2	25.4
74	Palestine	1.3	1.6	2.8	7.6	3.7	10.1	1.2	2.3
75	Sudan	8.4	9.9	5.9	31.6	7.9	42.1	5.9	18.9
76	Suriname	0.7	0.8	0.0	0.3	0.0	0.5	0.0	0.1
77	Tanzania	16.2	19.9	12.0	51.2	16.1	68.3	9.5	34.0
78	Togo	0.5	0.6	1.0	4.3	1.3	5.7	0.8	3.1
79	Tunisia	6.9	8.3	8.0	20.1	10.7	26.8	5.3	11.1
80	Uganda	9.0	11.2	6.8	31.1	9.1	41.5	5.8	16.9
81	Venezuela	24.9	28.4	5.3	24.0	7.1	32.1	5.2	16.7
82	Vietnam	68.7	82.0	58.1	156.3	77.4	208.4	32.6	64.3
83	Zambia	6.4	7.1	3.1	13.7	4.2	18.3	3.1	8.6
84	Zimbabwe	3.5	4.2	4.2	10.6	5.6	14.2	3.1	6.2

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