SOUTH CENTRE

TAX COOPERATION POLICY BRIEF

https://taxinitiative.southcentre.int

No. 31 • 25 March 2023

Taxation of Computer Software: Need for Clear Guidance in the UN Model Tax Convention

By Abdul Muheet Chowdhary * and Sebastien Babou Diasso **

Abstract

Developing countries pay enormous sums of money for the right to use intellectual property such as patents, trademarks, copyrights, etc. Such payments are known as 'royalties'. The scale is enormous, and just 27 South Centre Member States paid $45 billion in 2020 as royalties. Some proportion of these payments are for the right to use computer software. Developing countries can gain significant revenues if the United Nations can provide clear international tax guidelines that payments for the right to use computer software should be taxable as royalties. This Policy Brief provides the world's first country-level revenue estimates for 34 of the South Centre's Member States and finds that they could collect potentially $1 billion in tax revenues in 2020 had they been able to tax payments for the use of computer software as royalties.

***

Les pays en développement paient d'énormes sommes d'argent pour avoir le droit d'utiliser la propriété intellectuelle telle que les brevets, les marques, les droits d'auteur, etc. Ces paiements sont appelés "redevances". Ces paiements sont connus sous le nom de "redevances Le chiffre est énorme: seulement 27 États membres du Centre Sud ont payé 45 milliards de dollars en 2020 à titre de redevances. Une partie de ces paiements concerne le droit d'utiliser des logiciels informatiques. Les pays en développement pourraient bénéficier de revenus substantiels si l'ONU pouvait fournir des directives fiscales internationales claires sur le fait que les paiements pour le droit d'utilisation de logiciels informatiques devraient être taxés comme des redevances. Ce Rapport sur les Politiques fournit les premières estimations de recettes au niveau national pour 34 des États membres du Centre Sud et constate qu'ils pourraient collecter potentiellement 1 milliard de dollars de recettes fiscales en 2020 s'ils étaient en mesure de taxer les paiements pour l'utilisation de logiciels informatiques en tant que redevances.

***

Los países en desarrollo pagan grandes sumas de dinero por el derecho a utilizar propiedad intelectual como patentes, marcas, derechos de autor, etc. Estos pagos se conocen como "cánones."La cifra es enorme: 27 Estados miembros del Centro Sur pagaron 45.000 millones de dólares en 2020 en concepto de cánones. Una parte de estos pagos corresponde al derecho a utilizar programas informáticos. Los países en desarrollo pueden obtener ingresos considerables si la ONU consigue proporcionar directrices fiscales internacionales claras que establezcan que los pagos por el derecho a utilizar programas informáticos deben tributar como cánones. Este Informe sobre Políticas proporciona las primeras estimaciones de ingresos a nivel nacional para 34 de los Estados miembros del Centro del Sur y concluye que podrían recaudar potencialmente 1.000 millones de dólares en ingresos fiscales en 2020 si pudieran gravar los pagos por el uso de programas informáticos como cánones.

* Abdul Muheet CHOWDHARY (chowdhary@southcentre.int) is Senior Programme Officer of the Sustainable Development and Climate Change (SDCC) Programme of the South Centre. He leads the South Centre Tax Initiative (SCTI) which is a part of the SDCC Programme. He is a Member of the United Nations Tax Committee's Subcommittee on Wealth and Solidarity Taxes, a member of the Base Erosion and Profit Shifting (BEPS) Monitoring Group and is on the Steering Group of the Independent Commission for Reform of International Corporate Taxation (ICRICT).

** Sebastien Babou DIASSO (diasso.sebastien@hotmail.fr) was a former Research Consultant – Tax with the South Centre Tax Initiative. He has experience working with the United Nations (UN), the Ministry of Finance in Burkina Faso, and private institutions such as Zoodo International (a consulting agency on international relations and strategy) and the African Center for International Trade and Development.

Acknowledgements: The authors express their deep gratitude to Jose Ignacio Troya Gonzalez, Member of the UN Tax Committee (Ecuador), Dr. Viviana Muñoz Tellez, Coordinator, and Dr. Vitor Ido, Programme Officer, of the Health, Intellectual Property and Biodiversity (HIPB) Programme of the South Centre for their valuable comments. The authors would also like to thank Adnan Sose, Anders Trads Viemose and Nicolas Tascon Gallardo at the Graduate Institute of Geneva for their contributions to this Policy Brief.

An earlier version of this Policy Brief was published by the University of Nairobi, available here: http://erepository.uonbi.ac.ke/handle/11295/161464.

Introduction

Developing countries are largely dependent on foreign technologies often subject to intellectual property (IP) rights in a diversity of sectors. They also need to pay for licenses for the use of copyrighted works, including software. Payments generally take the form of royalties.

Royalties as per Article 12(3) of the United Nations (UN) Model Tax Convention are defined as "payments of any kind received as a consideration for the use of, or the right to use, any copyright of literary, artistic or scientific work including cinematograph films, or films or tapes used for radio or television broadcasting, any patent, trademark, design or model, plan, secret formula or process, or for the use of, or the right to use, industrial, commercial or scientific equipment or for information concerning industrial, commercial or scientific experience."

Thus, while the term 'intellectual property' is not specifically used in the definition, Article 12(3) enumerates different components of the IP system. This leads to the clear conclusion that payments for the use of IP are 'royalties'. The rest of the paper will proceed with this understanding.

A 2022 South Centre report has shown that payments for IP from the Global South to the Global North amounted to 48% of the Global South's Official Development Aid (ODA) for 2020.[1]

To give some examples of the scale of resource transfer, at a country level, India's payment for IP use was 11% of its FDI inflows in 2020, for Colombia it was 14% and for South Africa it almost offset the country's goods trade surplus in 2020[2].

However, this data provides a broad picture of the payments made. Developing countries do not have a full knowledge of the monetary cost caused by the IP regime. Notably, the World Trade Organization (WTO) does not provide statistics on payments and receipts for the use of IP through its Trade Policy Review (TPR).[3]

In addition to the direct monetary cost, there is also the potential loss of tax revenue. Under the UN Model Tax Convention (UN MTC), royalties can be taxable by the source state, meaning the state where the income arises. This typically is understood as the state from where the payment is made. While the UN MTC defines royalties fairly comprehensively in Article 12(3), there is lack of clarity over whether payments for the use or the right to use computer software are royalties, as the term "computer software" is not part of the definition.[4]

The UN and the Organisation for Economic Co-operation and Development (OECD) both provide opposing guidance, with the UN MTC indirectly implying that such payments are royalties and the OECD directly saying that they are not. There also remains contradiction within both models. For example, regarding the OECD Commentary, Greece, Mexico, Portugal, the Slovak Republic, Spain and Colombia (members of the OECD), as well as Argentina, Brazil, India, Morocco, Serbia and Tunisia (non-members) have all expressed reservations to the general OECD interpretation therein.

Similarly, within the UN MTC, the Commentary on Article 12 generally follows the OECD view (para. 13), but the 2021 update to the UN MTC had a modification where a 'large minority' of the members have expressed an opposing view that such payments for the use of computer software should be taxed as royalties (para. 16).

This contradiction in international tax standards has led to significant confusion and judicial tax disputes all over the world.[5] This has also meant a loss of revenue, because clear guidance on the taxation of computer software would have enabled the developing countries that have negotiated its tax treaties unaware of the divergent interpretation to retain at least a larger portion of the royalty outflows as tax revenues.

This Policy Brief therefore examines this issue as follows. Section I outlines the scale of resource transfer from the Global South to the Global North, through royalties, for the South Centre's Member States and other developing countries. Section II examines the UN's and the OECD's contradictory guidance on the taxation of payments for computer software as royalties, and the ongoing reform efforts in the UN Tax Committee. Section III examines State practice and the growing number of countries, both developing and developed, who do tax such payments as royalties in their tax treaties. This provides a powerful rationale for updating international tax standards. Section IV then provides estimates for how much additional tax revenues developing countries could have collected if international tax standards had provided clearer, unambiguous guidance on the taxation of computer software, being such payments taxed as royalties. The last section presents the conclusions.

I. Royalties: A Transfer Of Resources From the South to the North

The report of the Commission on Intellectual Property Rights (IPRs) in 2002 called for an IP system that considers the needs of developing countries, does not impose more costs and facilitates poverty reduction.[6]

Developing Countries Pay Huge Sums in IP Payments

Twenty years after this report, the concern remains and developing countries are still net importers of technology with billions of dollars paid in royalties to developed countries for the use of IP. The details are provided below for countries for which data is available.

As can be seen from Table 1, in 2020, the net deficit from the use of IPR is almost USD 1.5 billion for the selected countries in Africa, for Asian countries it is USD 39.5 billion and for Latin American countries, it is almost USD 4.7 billion. The 27 selected countries account for a net deficit of 45.7 USD billion which represents ¼ of the total official development assistance (ODA) from all donors in 2020 and 2021 (171.4 USD billion in 2020 and 178.9

Table 1: Payments and receipts for intellectual property for some South Centre members in 2020 (USD Million)

Region	Country	IP-Payments	IP-Receipts	Net IP-Payments (Outflows)
Africa	South Africa	1,197.536	126.359	1,071.177
	Morocco	151.547	10.377	141.170
	Algeria	133.393	1.226	132.167
	Ghana	156.695	46.229	110.466
	Mauritius	13.498	0.786	12.712
	Cabo Verde	3.695	0.040	3.656
	Tanzania	3.299	0.008	3.291
	Seychelles	1.982	1.375	0.607
	Namibia	0.942	2.185	-1.243
	Uganda	0.000	4.111	-4.110
Total		1,662.588	192.696	1,469.892
Asia	China	37,781.734	8,554.460	29,227.273
	India	7,241.108	1,253.655	5,987.453
	Malaysia	2,386.339	232.448	2,153.891
	Indonesia	1,530.061	83.576	1,446.485
	Philippines	519.252	15.258	503.994
	Pakistan	183.000	11.000	172.000
	Jordan	24.507	6.197	18.310
	Cambodia	20.901	9.332	11.569
Total		49,686.902	10,165.927	39,520.975
Latin America	Brazil	4,062.061	634.292	3,427.769
	Argentina	1,248.256	219.525	1,028.731
	Ecuador	139.640	4.260	135.381
	Jamaica	50.757	4.644	46.113
	Bolivia	44.528	5.633	38.896
	Panama	17.900	2.750	15.150
	Suriname	4.316	0.043	4.274
	Guyana	2.426	0.092	2.334
Total		5,569.885	871.238	4,698.647
Middle East	Iraq	4.900	0.100	4.800
Total		56,924.276	11,229.961	45,694.315

Source: Authors with World Bank data.[7]

USD billion in 2021[8]).

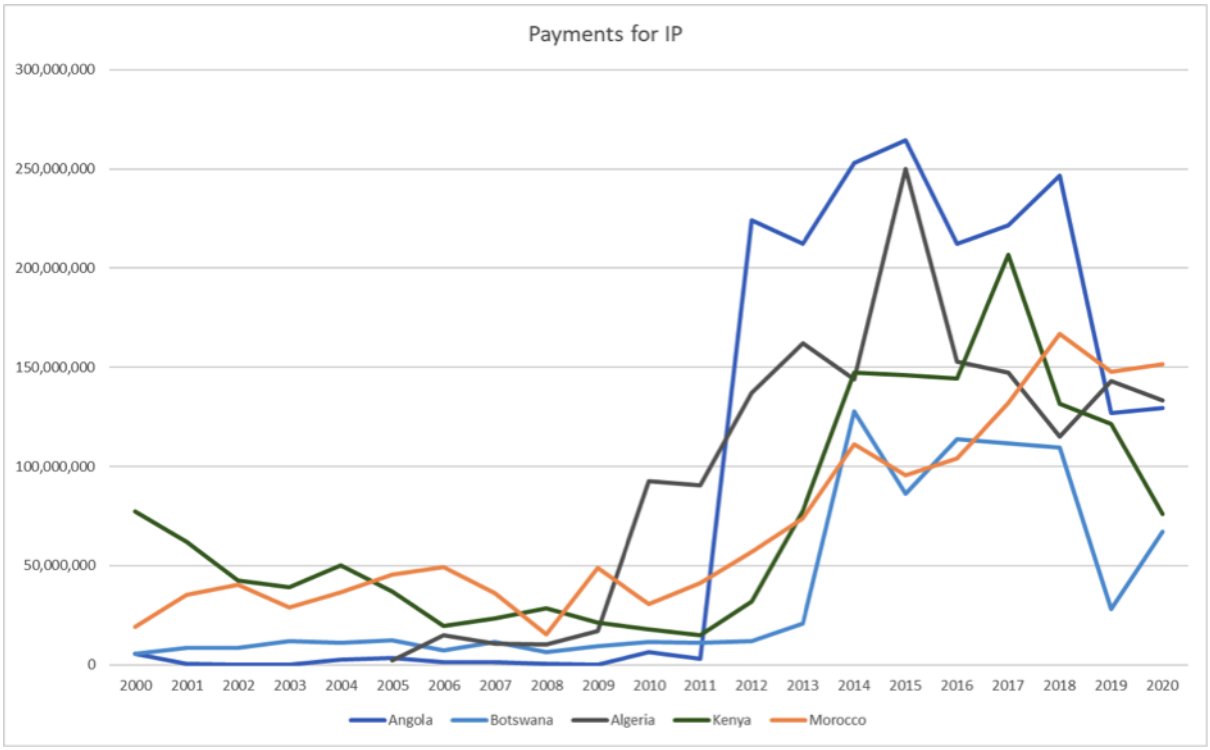
Figure 1a shows an important increase in royalty payments which occurred from year 2011 for some countries in Africa, especially in Angola, Botswana, Algeria, Kenya, and Morocco. Figure 1b shows that apart from a few countries such as Burkina Faso, Burundi, and Cabo Verde until 2013, the royalties paid for the use of IP see a continuous upward trend in almost all the countries.

It is clear that developing countries are paying significant amounts for the use of IP. However, data is not available at a disaggregated level. It is unknown how much is paid for the different kinds of IP, such as patents, trademarks, copyrights, etc. The paucity of data reiterates the need for the WTO to begin systematically reporting IPR payment statistics in its TPR at a disaggregated basis so it is known how much is paid for each kind of IPR.

Computer Software Constitutes a Major Portion of the South's Royalty Payments

An important category of technology that may be protected by IPRs (i.e. copyright, trademarks, patents) is computer software. Typically, when someone 'buys' software such as Adobe Acrobat, Zoom, or a video game, what they are paying for is the *right to use the soft-*

Figure 1a: Select African countries experiencing increased royalty payments



Source: Authors with World Bank data.

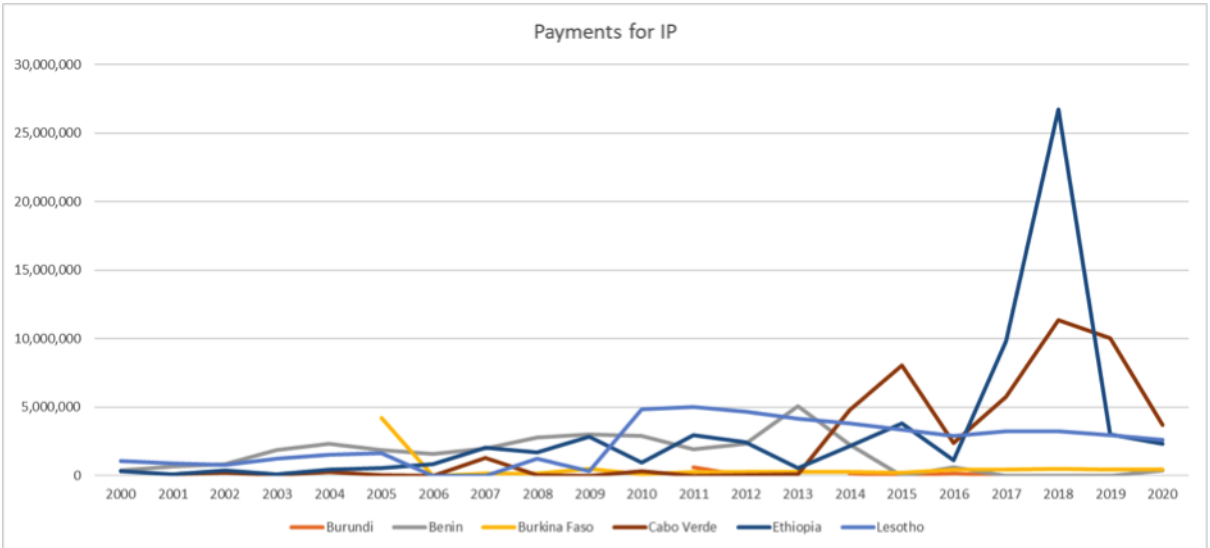
ware. These are embodied, for example, in an "End User License Agreement" (EULA). Such payments are for the right to use intellectual property, in this case software, and are thus by nature royalty payments.

As can be seen in Figure 2, the software market worldwide generates tremendous volumes of revenue. In 2021, it generated USD 524 billion, and this amount is only set to increase in the future.

Some portion of these revenues come from the royalty payments from the Global South to the Global North. However, as was mentioned earlier, disaggregated data is currently not recorded by international economic institutions such as the WTO, International Monetary Fund (IMF) and World Bank, making it difficult to precisely estimate what this portion is. This is an area where further research is required. Nevertheless, given the large volumes of the software markets' revenues, the fact that most of the software companies are based in the Global North, and the overall flow of royalties, it can be fairly surmised that the Global South must be paying a significant sum for the right to use computer software.

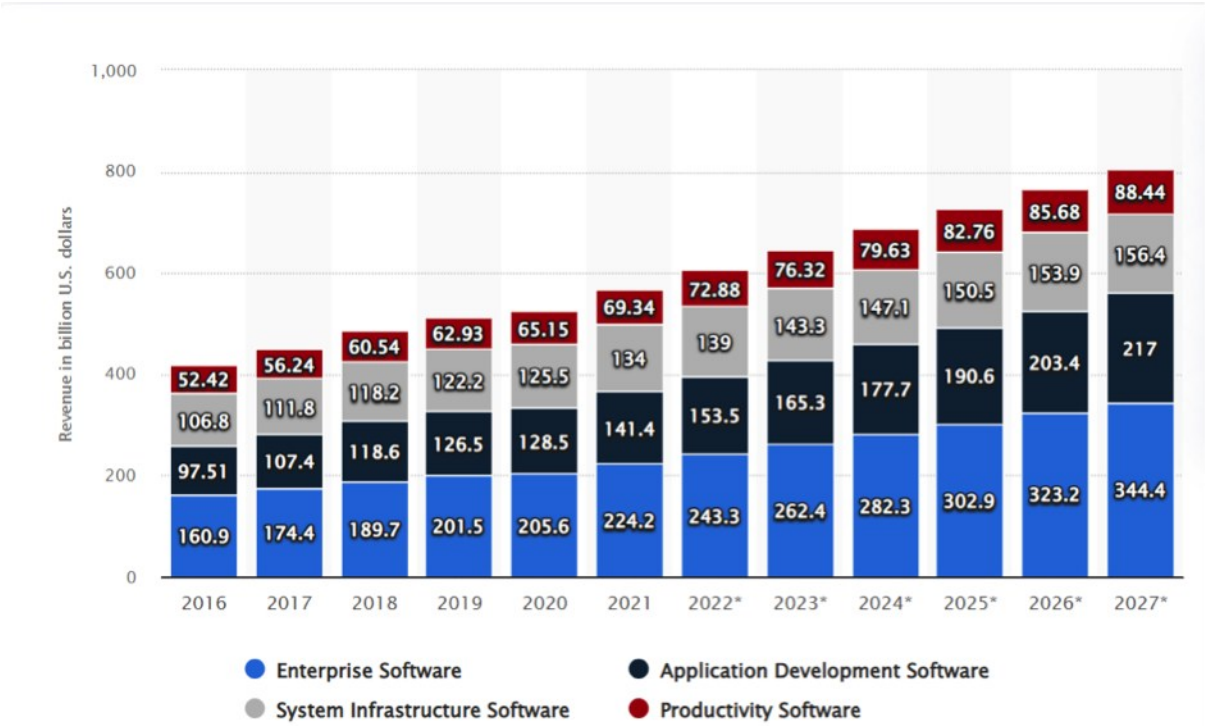
As mentioned previously, the taxation of these pay-

Figure 1b: Royalty payments for other African countries



Source: Authors with World Bank data.

Figure 2: Revenue of the software market worldwide from 2016 to 2027, by segment



Source: Statista, https://www.statista.com/forecasts/954176/global-software-revenue-by-segment

ments could have provided the developing countries with substantial revenues. Unfortunately, as will be explored in detail in the next section, the UN and OECD provide contradictory guidance on this issue, which has hindered the developing countries' ability to effectively tax such payments.

II. Contradictory Guidance by UN and OECD Hinders Effective Taxation Of Computer Software

OECD Guidance Prevents Developing Countries from Taxing Software Sales

Article 12 of the OECD Model Tax Convention defines royalties as "payments of any kind received as a consideration for the use of, or the right to use, any copyright of literary, artistic or scientific work including cinematograph films, any patent, trade mark, design or model, plan, secret formula or process, or for information concerning industrial, commercial or scientific experience."

Article 12 of the UN Model Tax Convention uses similar wording. Neither mentions computer software directly. However, the clear understanding in international law is that computer software is considered "literary work", and so payments for the use or the right to use any copyright of literary work also cover computer software. Article 4 of the World Intellectual Property Organization (WIPO) Copyright Treaty of 1996[9] unambiguously says,

"Computer programs are protected as literary works within the meaning of Article 2 of the Berne Convention. Such protection applies to computer programs, whatever may be the mode or form of their expression."

Article 10 of the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) uses similar wording.

In practical terms, to use software, one must download a copy of it onto their computer, phone, tablet or other device and install it. Thus, the essential requirement of "copying" the software to be able to use it brings in copyright protection.

This leads to the main controversial point: a) on the one hand, those that argue that, even if software "users" copy it in their device, this is an accessory activity and the main nature of the operation is comparable with the purchasing of a book (no use of copyright involved but the use of a copyrighted product); b) on the other hand, those that argue that in those cases the copying of the software is not accessory and/or that the "misuse" of the product may imply anyway the breach of copyrights and, therefore, the operation falls within the definition of the use of copyright.

The OECD, as the organization representing the interests of the developed countries where the software companies are headquartered, sought to promote the first understanding implying that developing countries could not impose withholding taxes on the software royalties in most of the cases where software is used. Accordingly, the following paragraph 14[10] was introduced in the OECD

Commentary on Article 12:

> "Regardless of whether this right is granted under law or under a license agreement with the copyright holder, copying the program onto the computer's hard drive or random access memory or making an archival copy is an essential step in utilising the program. ***Therefore, rights in relation to these acts of copying, where they do no more than enable the effective operation of the program by the user, should be disregarded in analysing the character of the transaction for tax purposes. Payments in these types of transactions would be dealt with as commercial income in accordance with Article 7.***" (emphasis added)

By classifying such transactions as commercial income in accordance with Article 7, they would be taxed as "business profits", which would require a physical presence through a permanent establishment in the source country under Article 5 in order for the country to keep its taxing rights. As is well known, the digitalization of the economy has meant that increasingly such software companies can derive revenues from a jurisdiction without physical presence.[11] Even if they do have physical presence, such as a local subsidiary, there are a plethora of challenges in attributing profits when the income is derived primarily from intangibles such as software.[12] The practical effect is to prevent developing countries from taxing the income from most of their purchases of software.

The "guidance" in the OECD Commentary was introduced with the implication of saving the Global North's software corporations from paying taxes to the Global South.

It has also caused endless tax disputes across the world.

Given the dominance of developed countries in the OECD, it is not surprising that the latest set of rules on taxation of the digitalized economy, known as the 'Two Pillar Solution', ensures the continuation of this situation. The revenue sourcing rules for Amount A of Pillar One will likely add to the confusion in the future as they reiterate the separation between copyright and the right to use computer programs. To quote its definition of intangible property[13],

> ""Intangible Property" means property which is not in tangible form and which is capable of being owned or controlled for use in commercial activities ***but does not include*** Real Property, financial assets, Digital Content, User data or ***the right to use computer programs. It includes copyrights, trademarks, tradenames, logos, designs, patents, know-how and trade secrets***." (emphasis added)

Efforts in the UN for Source Taxation of Computer Software

To address this problem, developing countries through the UN Tax Committee (UNTC) sought to amend the UN Model Tax Convention and introduce the words "computer software" in Article 12(3) which defines royalties. Given the confusion caused by the OECD's guidance, they also sought to de-link it from copyright, such that *any* payment for the use or the right to use computer software could be classified as a taxable royalty.[14]

This was fiercely opposed by the developed countries and the struggle, which began more than a decade ago,[15] continues to this day. However, in the 22nd Session of the UN Tax Committee in April 2021, the developing countries managed to achieve a breakthrough. While their demand for amending Article 12 was rejected, the Committee agreed to include a change to the Commentary which now reads as follows:

> 15. In the view of a large minority of the Members of the Committee, Article 12 should allow for source State taxing rights even in cases where the user of computer software is not exploiting the copyright in the software. In their view, Article 12 is intended to cover payments for the letting of property, which is broader than use of the copyright. For example, if a company that is a resident of State S uses in its business human resources software that is owned by a company that is a resident of State R, payments made for that use would not be covered by the current definition of royalties in paragraph 3 of Article 12. In their view, Article 12 should address circumstances in which the owner of the computer software earns profits from letting another person use that computer software, without having the owner establish any presence in the state where it is used, or where the user resides, which would satisfy the requirements of Article 5 for the existence of a permanent establishment. In the view of those Members, a person that is making payments for the use of, or the right to use, computer software is making a payment in consideration for the letting of that intangible property just as a person that is making payments for the use of industrial, commercial or scientific equipment (already included in paragraph 3) is making a payment in consideration for the letting of tangible property.
>
> States sharing this view may want to include at the end of paragraph 3 the following sentence:
>
> The term also includes any consideration for the use of, or the right to use, any computer software, or the acquisition of any copy of computer software for the purposes of using it.

While the amended Commentary marked a victory for developing countries and a step forward, it nevertheless remained a minor one. From a legal perspective, a change to the Commentary, recorded as the view of a "large minority", does not carry as much weight as a change to the Article itself. Hence, the developing countries are continuing their effort to reform Article 12, while the developed countries are determined to prevent this from happening and to undo even the minor progress achieved. The issue continues to remain a high priority in the agenda of the UN Tax Committee.

III. Existing Treatment of Payments for Computer Software in Developing Countries' Treaties

As was mentioned, developing countries are trying to amend Article 12 to make it clear that any payment for the use or the right to use computer software is a royalty payment, regardless of the linkage with copyright protection. State practice is a well-established source of customary international law, and the more widespread a practice is, the stronger the rationale for it to become international law. This was what happened in the case of Article 12A (Fees for Technical Services) which was widely included in bilateral tax treaties and was eventually included in the UN MTC.[16]

In the case of the taxation of payments for computer software as royalties, it is worth conducting a similar examination. Preliminary research on the Tax Notes tax treaties database shows that 440 tax treaties, which is a large number, already specifically mention "computer software" in the provision on royalties. Of these, the majority are in-force. The details are in Table 2.

This already provides a strong rationale for inclusion of "computer software" in Article 12(3) of the UN MTC. Since the developing countries want to de-link it from copyright, further analysis was carried out to find out which of these treaties follow the de-linked approach.

From the set of 404 in-force treaties, 163 tax treaties were selected for analysis, owing to constraints of time and resources. Of these, 152 were randomly selected and the remaining 11 were between the South Centre's Member States and developed countries where major Automated Digital Service (ADS) companies are headquartered.[17] The results are in Table 3.

From the table it can be seen that the majority of treaties, 104/163 or almost 64% of the total, do link it to copyright. However, it is also seen that 53/163 or 33% follow the de-linked approach.

Table 3: Treatment Of Payments For Computer Software In Tax Treaties

Observation	**Number**
Treaties where payments for computer software are delinked from copyright.	53
Treaties where the link is not clear.	6
Treaties where payments for software are linked to copyright.	104
Total	163

Source: Authors & allied researchers from the Graduate Institute of Geneva. TaxNotes tax treaties database.

Table 2: Number of Tax Treaties Including Software in the Definition of Royalties

Type of Treaty	**No.**
In-Force	404
Pending	31
Terminated	3
Abandoned	2
Total	440

Source: TaxNotes tax treaties database. Accessed September 2022.

Overall, it can be clearly said that there is enough State practice to justify the amendment of Article 12 to make it clear that payments for the use or the right to use computer software, whether or not they are linked to the use or the right to use copyright, are taxable as royalties.

IV. Reforming the Cross-border Taxation of Computer Software: A Source of Revenue Mobilization

This section provides estimates of how much developing countries *could have* collected as tax revenues in 2020 if clear guidance was provided by the UN and they imposed withholding taxes (WHT) on 1) computer software payments and 2) all royalty payments.

Table 4 provides estimates for 34 South Centre Member States by applying a 9% and 15% WHT, respectively, to outgoing IP payments. 9% is the rate under the Subject to Tax Rule (STTR) in Pillar Two[18] while 15% tends to be the upper end of the rate on royalties in existing tax treaties of developing countries.[19] These countries have been selected because of data availability.

As mentioned, disaggregated data is unavailable for royalty payments by category. Given the importance of software use in a multiplicity and devices and systems, a reasonable assumption is that at least 20% of the IP payments constitute software royalties. Further research is required in this area. However, it is a modest estimate, in the light of the size of the software market.[20]

The data shows that the 34 South Centre Members could have collected an additional USD 1 billion by imposing a 9% WHT on software royalties. If applied to all royalties, this could have generated USD 5.1 billion, and with a 15% rate up to USD 8.6 billion.

To put them in perspective, the revenues generated from the 9% rate on all royalties are compared to grants and ODA received. These could also be used to repay debt, and so are compared to debt service costs. The results for African countries are in Table 5 and for Asian and Latin American countries in Table 6.

Table 4: Potential tax revenues from royalties under different scenarios for some South Centre members in 2020 (USD Million)

Region	Country	IP-Payments	9% of Payments (STTR rate)	15% of Payments	Software Royalties (20% of STTR)
Africa	South Africa	1,197.54	107.778	179.6304	21.5556
	Egypt, Arab Rep.	297	26.73	44.55	5.346
	Nigeria	252.84	22.756	37.926	4.5512
	Ghana	156.695	14.103	23.50425	2.8206
	Morocco	151.547	13.639	22.73205	2.7278
	Algeria	133.393	12.005	20.00895	2.401
	Angola	129.608	11.665	19.4412	2.333
	Mauritius	13.498	1.215	2.0247	0.243
	Malawi	5.047	0.454	0.75705	0.0908
	Cabo Verde	3.695	0.333	0.55425	0.0666
	Zimbabwe	3.629	0.327	0.54435	0.0654
	Tanzania	3.299	0.297	0.49485	0.0594
	Seychelles	1.982	0.178	0.2973	0.0356
	Namibia	0.942	0.085	0.1413	0.017
	Nicaragua	0.6	0.054	0.09	0.0108
Total		2,351.315	211.619	352.69665	42.3238
Asia	China	37,781.73	3,400.36	5667.2601	680.0712
	India	7,241.11	651.7	1086.1662	130.34
	Malaysia	2,386.34	214.771	357.95085	42.9542
	Indonesia	1,530.06	137.706	229.50915	27.5412
	Philippines	519.252	46.733	77.8878	9.3466
	Pakistan	183	16.47	27.45	3.294
	Cambodia	20.901	1.881	3.13515	0.3762
Total		49,662.40	4,469.62	7,449.36	893.92
Latin America	Brazil	4,062.06	365.585	609.30915	73.117
	Argentina	1,248.26	112.343	187.2384	22.4686
	Ecuador	139.64	12.568	20.946	2.5136
	Honduras	62.388	5.615	9.3582	1.123
	Jamaica	50.757	4.568	7.61355	0.9136
	Dominican Republic	49.7	4.473	7.455	0.8946
	Bolivia	44.528	4.008	6.6792	0.8016
	Panama	17.9	1.611	2.685	0.3222
	Suriname	4.316	0.388	0.6474	0.0776
	Guyana	2.426	0.218	0.3639	0.0436
Total		5,681.97	511.38	852.30	102.28
Middle East	Jordan	24.507	2.206	3.67605	0.4412
	Iraq	4.9	0.441	0.735	0.0882
Total		29.407	2.647	4.41105	0.5294
TOTAL		**57,725.088**	**5,195.258**	**8658.7632**	**1039.0516**

Source: Authors with World Bank data

Table 5: STTR revenue from all IP payments in percentage of debt service costs, grants and official development aid for select African countries in 2020

Country Name	STTR revenue (% Total debt service)	STTR revenue (% of Grants)	STTR revenue (% of Net ODA received)	STTR revenue (% of Technical Cooperation Grants)	STTR revenue (% of Total Inward Resources[21])
South Africa	0.4	10.9	9.0	71.2	4.6
Angola	0.1	9.7	10.5	27.1	4.2
Botswana	3.3	7.9	7.7	57.6	3.7
Algeria	6.9	9.8	5.7	7.5	2.4
Eswatini	4.7	2.9	2.8	48.0	1.4
Egypt, Arab Rep.	0.2	6.4	1.7	11.6	1.2
Morocco	0.3	1.7	0.7	4.6	0.5
Ghana	0.5	1.9	0.6	10.4	0.5
Nigeria	0.4	1.1	0.7	9.0	0.4
Mauritius	0.0	4.8	0.4	6.3	0.3
Cabo Verde	0.6	0.6	0.2	1.9	0.1
Kenya	0.2	0.5	0.2	3.1	0.1
Tunisia	0.0	0.3	0.2	0.7	0.1
Lesotho	0.3	0.2	0.1	5.3	0.1
Zambia	0.0	0.2	0.1	1.9	0.1
Madagascar	0.7	0.1	0.1	1.3	0.0

Source: Authors with World Bank data

Table 6: STTR revenue from all IP payments in percentage of grants and official development aid for selected Asian and Latin American countries in 2020

Region	Country	STTR Revenue (% of Tech Coop Grants)	STTR Revenue (% of Net ODA)	STTR Revenue (% of Grants)	STTR Revenue (% of Total Inward Resources)
Asia	India	121.8	36.3	105.8	22.1
	Indonesia	47.9	11.2	22.0	6.4
	Philippines	28.8	3.2	11.3	2.3
	Pakistan	7.9	0.6	1.4	0.4
	Cambodia	2.0	0.1	0.4	0.1
	Jordan	1.0	0.1	0.1	0.0
Latin America	Argentina	276.8	110.9	245.1	59.9
	Brazil	185.9	59.7	130.6	33.6
	Jamaica	43.3	6.9	6.0	3.0
	Ecuador	19.8	3.7	7.3	2.2
	Suriname	11.6	1.4	1.7	0.7
	Bolivia	7.1	1.2	1.8	0.6
	Panama	7.6	0.4	4.4	0.4
	Guyana	5.3	0.4	0.5	0.2
Middle East	Iraq	0.2	0.0	0.0	0.0

Source: Authors with World Bank data

The above data makes it abundantly clear that the taxation of royalties, even with a modest 9% rate, can provide significant revenues to the Global South. For some countries this equals or even exceeds the revenues received from grants and ODA. This adds urgency to the need for reform of this critical question of international taxation.

Conclusion

This paper has shown that developing countries make significant payments for use of IP protected software and licenses mostly benefiting companies overseas, whose income is then taxable by the developed countries where these companies are based. There is a pressing need for the UN to provide clear guidance that payments for the use or the right to use computer software can be accounted for as royalties. This will increase the confidence of developing countries to tax these payments at the source and reduce the chances of tax disputes. Our preliminary estimates show that a 9% rate applied to software royalties could have generated up to USD 1 billion in 2020 for 34 of the South Centre's Member States. Given the large sum of revenue at stake, urgent action is needed.

Endnotes:

[1] South Centre, *Direct Monetary Costs of Intellectual Property for Developing Countries, A Changing Balance for TRIPS?* (Geneva, 2022). Available from https://www.southcentre.int/wp-content/uploads/2022/03/SC-Report-DIRECT-MONETARY-COSTS-OF-INTELLECTUAL-PROPERTY-FOR-DEVELOPING-COUNTRIES-FINAL.pdf.

[2] Ibid.

[3] Peter Lunenborg, "IPR-related Statistics in WTO Trade Policy Reviews", Policy Brief, No. 112 (Geneva, South Centre, 2022). Available from https://www.southcentre.int/policy-brief-112-28-june-2022/. It is strongly recommended that the TPR start providing data on IP deficits and surpluses at a country level for all WTO Members.

[4] South Centre, Comments on **Discussion Draft:** Taxation of Software Payments as Royalties, March 2021. Available from https://www.southcentre.int/sc-submission-march-2021-2/.

[5] See https://www.internationaltaxreview.com/article/2a6a85hp03txpukdhy1a8/deep-dive-indian-supreme-courts-ruling-on-software-licensing-fees.

[6] See http://www.iprcommission.org/graphic/documents/final_report.htm; https://www.twn.my/title/twe289a.htm.

[7] The World Bank's definition of charges for the use of IP is as follows: Charges for the use of intellectual property are payments and receipts between residents and nonresidents for the authorized use of proprietary rights (such as patents, trademarks, copyrights, industrial processes and designs including trade secrets, and franchises) and for the use, through licensing agreements, of produced originals or prototypes (such as copyrights on books and manuscripts, computer software, cinematographic works, and sound recordings) and related rights (such as for live performances and television, cable, or satellite broadcast).

[8] See https://www.oecd.org/development/financing-sustainable-development/development-finance-standards/official-development-assistance.htm.

[9] See https://wipolex.wipo.int/en/text/295157.

[10] See https://www.oecd.org/berlin/publikationen/43324465.pdf.

[11] Statement by the South Centre on the Two Pillar Solution to Address the Tax Challenges Arising From the Digitalisation of the Economy, July 2021. Available from https://www.southcentre.int/wp-content/uploads/2021/07/SC-Statement-on-IF-Two-Pillar-Solution-FINAL.pdf.

[12] See https://www.ictd.ac/publication/taxation-digitalising-economy-africa-study/.

[13] See Progress Report on Amount A, page 82 at https://www.oecd.org/tax/beps/progress-report-on-amount-a-of-pillar-one-two-pillar-solution-to-the-tax-challenges-of-the-digitalisation-of-the-economy.htm.

[14] See https://www.un.org/development/desa/financing/sites/www.un.org.development.desa.financing/files/2021-10/CRP.22%20UN%20Model%20Double%20Taxation%20Convention%20between%20Developed%20and%20Developing%20Countries.pdf.

[15] A detailed history of the struggle can be found in E/C.18/2020/CRP.13: https://www.un.org/development/desa/financing/sites/www.un.org.development.desa.financing/files/2020-05/CRP13%20Application%20of%20Art%2012%20to%20software%20payments.pdf.

[16] See https://www.ictd.ac/publication/at-table-off-menu-assessing-participation-lower-income-countries-global-tax-negotiations/.

[17] Vladimir Starkov and Alexis Jin, *A Tough Call? Comparing Tax Revenues to Be Raised by Developing Countries from the Amount A and the UN Model Treaty Article 12B Regimes*, Research Paper, No. 156 (Geneva, South Centre, 2022). Available from https://www.southcentre.int/research-paper-156-1-june-2022/.

[18] South Centre, Statement on the Two Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy, 13 October 2021. Available from https://www.southcentre.int/wp-content/uploads/2021/10/SC-Statement-on-IF-Two-Pillar-Solution-13-Oct-2021.pdf.

[19] See https://taxinitiative.southcentre.int/wp-content/uploads/2022/04/Presentation-Pillar-Two-Model-Rules-Subject-to-Tax-Rule.pdf.

[20] See https://www.grandviewresearch.com/industry-analysis/software-market-report.

[21] Total Inward = the sum of total grants and net official development assistance received

This brief is part of the South Centre's policy brief series focusing on tax policies and the experiences in international tax cooperation of developing countries.

Efforts to reform international cooperation in tax matters are exhibiting a distinct acceleration. The direction of change must recognize and incorporate innovations in developing country policies and approaches, otherwise the outcomes will obstruct practical paths to development.

The policy brief series is intended as a tool to assist in further dialogue on needed reforms.

***** The views contained in the policy briefs are personal to the authors and do not represent the institutional views of the South Centre or its Member States.**

SOUTH CENTRE

The South Centre is the intergovernmental organization of developing countries that helps developing countries to combine their efforts and expertise to promote their common interests in the international arena. The South Centre was established by an Intergovernmental Agreement which came into force on 31 July 1995. Its headquarters is in Geneva, Switzerland.

The South Centre
International Environment House 2
Chemin de Balexert 7-9
PO Box 228, 1211 Geneva 19
Switzerland
Tel.: +41 (0)22 791 8050
south@southcentre.int
https://www.southcentre.int

Follow the South Centre's Twitter: South_Centre

Previous South Centre

Tax Cooperation Policy Briefs

No. 12, September 2020—Base Erosion and Profit Shifting in the Extractive Industries by Danish and Daniel Uribe

No. 13, February 2021—Making the UN Tax Committee more effective for developing countries by Abdul Muheet Chowdhary

No. 14, June 2021—The Tax Sovereignty Principle and Its Peaceful Coexistence with Article 12B of the UN Model Tax Convention by Kuldeep Sharma, ADIT (CIOT, UK)

No. 15, June 2021—Conceptualizing a UN Multilateral Instrument by Radhakishan Rawal

No. 16, July 2021— Article 12B – A tax treaty solution by the UN Tax Committee for taxing digital incomes by Rajat Bansal

No. 17, July 2021— An Albatross Around the Neck of Developing Nations – MFN Clause in Tax Treaties by Deepak Kapoor, IRS

No. 18, September 2021— Combatting Tax Treaty Abuse: Tools available under the BEPS Multilateral Instrument by Kuldeep Sharma, ADIT (CIOT,UK)

No. 19, October 2021— Developing Country Demands for an Equitable Digital Tax Solution by Abdul Muheet Chowdhary

No. 20, October 2021— Making the UN Tax Committee's Subcommittees More Effective for Developing Countries by Abdul Muheet Chowdhary, Sebastien Babou Diasso, and Aaditri Solankii

No. 21, November 2021— Streamlining the Architecture of International Tax through a UN Framework Convention on Tax Cooperation by Abdul Muheet Chowdhary and Sol Picciotto

No. 22, 12 January 2022 — Global Minimum Corporate Tax: Interaction of Income Inclusion Rule with Controlled Foreign Corporation and Tax-sparing Provisions by Kuldeep Sharma, ADIT (CIOT,UK), FTI (Australia), Insolvency Professional (IBBI)

No. 23, 11 February 2022 — Global Minimum Tax Rate: Detached from Developing Country Realities by Sebastien Babou Diasso

No. 24, 29 July 2022 — A Global Asset Registry to track hidden fortunes and for asset recovery by Ricardo Martner

No. 25, 30 September 2022—UN Model Tax Convention: Selective Territoriality – The Specter of Privileged Player in a Rigged Game by Muhammad Ashfaq Ahmed

No. 26, 31 October 2022—Revenue Effects of the Global Minimum Corporate Tax Rate for African Economies by Seydou Coulibaly

No. 27, 21 December 2022—Taxing Big Tech: Policy Options for Developing Countries by Abdul Muheet Chowdhary and Sébastien Babou Diasso

No. 28, 20 January 2023 — Climate Finance Withholding Mechanism: Exploring a potential solution for climate finance needs of the developing countries by Radhakishan Rawal

No. 29, 3 March 2023 — Digital taxation under the OECD Amount A and UN Article 12B mechanisms for market jurisdictions in Africa: a comparative analysis by Erica Rakotonirina

No. 30, 25 March 2023 — Enforcing Secondary Taxing Rights: Subject to Tax Rule in the UN Model Tax Convention by Abdul Muheet Chowdhary and Sebastien Babou Diasso