



# **Symposium on IFFs: The Evolving Landscape of Illicit Financial Flows: Transfer Pricing in the Age of Cloud Computing**

**By:**

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April 25, 2024

## **Introduction**

[Cloud computing](#) is a technology that allows users to access and use computing resources (like servers, storage, databases, networking, software, analytics, and intelligence) over the internet. It is often referred to as '[the cloud](#)'. This technology enables [on-demand delivery](#) of IT resources with pay-as-you-go pricing, eliminating the need for significant upfront capital expenses for hardware and software. It offers [flexibility, scalability, and efficiency](#), allowing businesses and individuals to store and process data in remote data centres. Cloud computing supports a range of services, including hosting websites and blogs, streaming audio, and video, delivering software on demand, analysing data for patterns and insights, and much more.

The landscape of cloud computing has undergone a profound transformation over the past decade, evolving from specific service models like [Software as a Service \(SaaS\)](#), [Platform as a Service \(PaaS\)](#) and [Infrastructure as a Service \(IaaS\)](#) to a more encompassing [Everything as a Service \(XaaS\)](#) approach. This shift, primarily driven by the need for greater flexibility, scalability, and cost-effectiveness, has not only revolutionised the way businesses utilise software but also introduced significant complexities in taxation. Initially, the cloud computing model was dominated by SaaS, offering software applications over the internet, and IaaS, providing virtualised computing resources. These models democratised access to advanced software and hardware resources, allowing businesses to scale operations without significant upfront investments. The [evolution to XaaS](#), a holistic service model encapsulating various cloud-based offerings, is a natural progression in this technological journey. XaaS extends the principles of SaaS and IaaS, offering a broad spectrum of services, from computing power and storage to more specialised functions like database management, artificial intelligence, and cybersecurity, all accessible over the cloud. This shift towards a more integrated service model aligns with the growing preference for operational flexibility and the need to rapidly adapt to changing business landscapes.

However, this transformation has posed [significant challenges in taxation](#), particularly in the realm of indirect taxes like sales tax in the United States and [Value Added Tax \(VAT\)](#) in many other countries. The US faces a particularly complex situation due to the lack of uniformity in how states classify and tax cloud services. The categorisation of SaaS varies widely; some states consider it tangible personal property, while others see it as a service, leading to divergent tax treatments. For instance, [Pennsylvania taxes SaaS as tangible property, whereas California exempts it when delivered electronically](#). The situation is further complicated by varying tax rates based on usage and the presence of home-rule jurisdictions with their own set of tax rules. In contrast, countries with VAT systems generally offer a more streamlined approach, with SaaS typically falling under the standard VAT rate. However, the [introduction of use and enjoyment rules](#), intended to align the place of taxation with the location of actual service consumption, has inadvertently led to complex scenarios, such as the potential for double taxation.

Another challenge is that the tax complexities inherent in the classification and treatment of cloud services, particularly under the SaaS model, have direct and profound implications for the legal intricacies of transfer pricing. As cloud computing services become more prevalent, the transfer pricing strategies that multinational corporations (MNCs) employ must adapt to the tax realities of each jurisdiction in which they operate. The lack of uniformity in tax treatment across different states in the U.S., for example, and even between countries with VAT systems that have implemented use and enjoyment rules, presents opportunities for legal arbitrage. Such arbitrage can be exploited, intentionally or not, to drive Illicit Financial Flows through strategic transfer pricing manoeuvres.

### **Cloud Computing, Transfer Pricing and IFFs**

[Transfer pricing](#) is fundamentally about ensuring that cross-border transactions between related entities are conducted at arm's length, mirroring market conditions. However, the intrinsic nature of cloud computing, particularly under the XaaS model, obscures traditional benchmarks used for determining arm's length pricing. With XaaS, the valuation of services is not simply tied to the direct costs or market comparables of tangible goods but is also influenced by a complex interplay of data flows, intellectual property, and the global distribution of digital infrastructure. This complexity can be leveraged by MNCs to allocate profits and expenses in a manner that reduces their overall tax burden, often in ways that may not align with the economic substance of where value is created, and services are actually consumed.

In a landscape where some jurisdictions [tax SaaS as tangible property](#) and [others do not](#), MNCs may structure their operations to take advantage of more favourable tax treatments. For example, by routing transactions through states or countries where SaaS is not considered tangible property and therefore not subject to the same level of taxation, MNCs can significantly reduce their tax liabilities. This practice, while legally defensible in some cases, can lead to a form of profit shifting that contributes to IFFs, as it may not reflect the actual economic activity taking place. Moreover, the potential for double taxation arising from the use and enjoyment rules can create a deterrent for MNCs to report income in certain jurisdictions, incentivising them to instead report in jurisdictions where such rules are not applied or are more favourable. This

selective reporting can distort the allocation of profits and tax revenues, ultimately leading to a loss of income for countries that are unable to claim their fair share of tax on the profits generated within their borders.

The XaaS model, with its inherent flexibility and the bundling of various services, amplifies these concerns. It allows for even greater fluidity in how services are defined and priced, providing MNCs with additional means to manipulate transfer pricing strategies. This fluidity, while a boon for operational efficiency and innovation, poses significant risks for tax authorities seeking to pin down the true value and location of taxable events. The essence of XaaS lies in its provision of intangible services - ranging from software and storage to complete business processes - over the internet. Valuing these intangibles for transfer pricing purposes is inherently challenging due to their abstract nature and the lack of comparable market transactions. This complexity is further compounded by the rapid innovation and obsolescence common in the technology sector, making it difficult to ascertain the true value of these services.

Additionally, [the decentralised nature of cloud computing complicates the determination of where value creation occurs within an MNC](#). Traditional transfer pricing methods rely heavily on the physical presence of assets and personnel, but cloud services often transcend geographical boundaries. This global reach allows MNCs to strategically allocate profits and expenses across various jurisdictions, potentially exploiting differences in tax rates and regulations. Such practices, while not illegal per se, can lead to significant tax base erosion in higher-tax countries, a key concern in the discourse on IFFs. The problem is exacerbated by the [lack of harmonised global tax rules specific to cloud computing](#). While the [Organisation for Economic Co-operation and Development](#) (OECD) and other international bodies, like the [United Nations](#) have made efforts to address BEPS (Base Erosion and Profit Shifting) issues, the rapid pace of technological change often outstrips these regulatory efforts. The OECD's report on [Pillar One](#), for example, does not go into detail about how to value the data and algorithms that are often integral to cloud computing services, which can be crucial for determining transfer pricing and the associated tax obligations. Neither does it address how arrangements by MNCs to enter into cost sharing arrangements for the development of cloud computing affect transfer pricing and profit allocation as well as the challenge

that cloud computing often involves bundled services that may include elements of SaaS, PaaS and IaaS, making it difficult to allocate revenue and determine transfer pricing for tax purposes.

This ambiguity and fluidity in cloud computing services presents opportunities for tax evasion, an illegal form of IFFs. By manipulating transfer prices, MNCs can shift profits to low-tax jurisdictions, thereby reducing their overall tax liability illicitly. This not only deprives governments of vital tax revenues but also undermines the fairness and integrity of the global tax system. [In 2022, the XaaS market size was reported at USD 545.35 billion. It is projected to grow to USD 2,378.07 billion by 2029](#) at a compound annual growth rate (CAGR) of 23.4%. This rapid expansion of the XaaS market represents a potential goldmine for public finance through taxation. With cloud computing becoming the backbone of the modern economy, its proper taxation could yield substantial revenues for governments worldwide. These revenues could be pivotal in financing the [Sustainable Development Goals](#) (SDGs), which require significant investment in areas such as poverty reduction, education, healthcare, and climate change mitigation.

However, the very nature of cloud computing poses challenges for traditional taxation models. The intangible nature of services offered, the multi-jurisdictional delivery, and the difficulty in determining the locus of value creation all contribute to the complexity of taxing these services. Transfer pricing abuse becomes a significant concern in this context. MNCs, through strategic allocation of profits and intellectual property licensing within their international subsidiaries, can exploit these complexities to minimise their tax liabilities. Such practices threaten to deprive states, especially developing countries, of critical revenues that could support their SDG initiatives. As MNCs leverage transfer pricing mechanisms to shift profits to low-tax jurisdictions, the tax base in higher-tax countries where the value is actually created is eroded. This results in a misalignment between where economic activities and value creation occur and where taxes are paid, undermining the ability of countries to fund development programs.

## **Africa at Risk**

African countries are at risk of IFFs enabled by transfer pricing manipulation in the cloud computing sector due to [tax rate differentials within the continent and at a global level](#). Many African countries have comparatively high statutory corporate tax rates that make them targets for profit shifting strategies by multinational corporations seeking to minimise tax obligations. For example, [the average corporate tax rate in Africa is over 28% versus only 23% for emerging markets worldwide and 21% for OECD countries](#). This significant differential incentivises companies to erode the African tax base through aggressive transfer pricing practices. Furthermore, tax authorities across Africa generally lack the advanced audit capabilities imperative for scrutinising intricate cross-border cloud computing transactions and identifying abusive profit shifting arrangements. Most agencies on the continent have constraints in skills, tools, and institutional capacity to take on giant multinational tech corporations with deep pockets. They have limited access to sophisticated data analytics platforms and personnel well-versed in unravelling complex corporate ecosystems engineered specifically to enable income shifting to tax havens.

This capability gap is exacerbated by the intrinsic complexity and opacity of cloud computing services, along with the confidential nature of the proprietary platforms used by tech giants to deliver solutions globally. The result is substantial information asymmetries between African tax administrators seeking to protect revenue bases and powerful MNCs with the means to aggressively minimise tax exposure, often through legal arbitrage.

## **Conclusion**

The evolution of [IFFs as we understand it](#) is intricately linked to the progress of technology. The case of cloud computing serves as a prime example of how advancements in tech can facilitate the growth of IFFs. The nexus between cloud computing and IFFs through transfer pricing presently remains an elusive subject due to a lack of substantiating data. This gap in data can be attributed to several factors: the opacity and complexity inherent in cloud computing transactions that span multiple jurisdictions; the intricate corporate strategies surrounding transfer pricing that are typically shrouded in confidentiality; and the swift pace of technological advancement that often outpaces regulatory oversight and data collection methods. Furthermore, stringent privacy laws protect corporate financial information, and the lack of a standardised global

reporting framework complicates the task of monitoring and comparing financial flows. Additionally, the requisite international cooperation for effective monitoring is hindered by disparate enforcement capabilities and resources, particularly in developing countries where the means to collect and analyse such complex data are often limited. This confluence of factors creates a significant barrier to comprehensively understanding the role of cloud computing in facilitating IFFs, underscoring the need for heightened transparency, regulatory adaptation, and international collaboration to bridge the data gap and to scrutinise the potential for financial malpractice within this burgeoning sector of the digital economy.

Nevertheless, the potential for cloud computing to serve as a conduit for IFFs through transfer pricing practices is indeed present, as discussed in this blog. The characteristics that make cloud computing particularly susceptible—such as the intangibility of services, the ease of shifting profits across borders, and the intricacy of valuing digital goods and services—are well-recognised factors within the domain of transfer pricing. While concrete data may be lacking at this juncture, the theoretical underpinnings suggest that as the cloud computing sector continues to grow, so too does the opportunity for IFFs to manifest from this rapidly expanding field.

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