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Taxation of Space: the final frontier*

Jonathan Schwarz (Temple Tax Chambers; King's College London) · Friday, September 27th, 2019

While earthlings are grappling with taxation in a digitalised world, a new and important frontier has been opening up somewhat less observed. Commercial exploitation of space has become commonplace and plans for activity beyond our planet more ambitious. At the IFA Permanent Scientific Committee we are always looking ahead to see where cutting-edge tax issues are emerging The seminar on the taxation of space at the IFA Congress in London earlier this month was a great opportunity to address this issue along with my co-panellists James Anderson, Timothy G. Nelson (both of Skadden, Arps), Prof. Yun Zhao (University of Hong Kong), Christine Simões, (Simões & Pellegrino), Adv Rohan Shah and Alex Rigby(Skadden).

Issues relating to the taxation of commercial operation of space are not new. Indeed, I have taught a seminar on the topic as part of the international tax law LLM course at King's College London for a number of years. Like the digitalisation of the economy, it has crept up quietly until it exploded onto the scene in tandem with commercial space -related activity. Like the digital economy which is largely subject to tax rules designed for an industrial economy, taxation of space is by reference to rules applicable to an earlier terrestrial era.

Satellite operation

While much attention is on state and commercial endeavours beyond the neighbourhood of earth, the operation of satellites around the earth has become increasingly a feature of tax cases. 2019 has already seen three judicial decisions featuring satellites in relation to their predominant roles: earth observation and communications.

Satellite imaging was used as evidence in tax litigation in order to demonstrate the character of property for article 13 of the OECD Model in *CoT v Resource Capital Fund* [2019] FCAFC 51.

Satellite acquisition and launch costs were examined by the UK Tax Tribunal in *Inmarsat Global Ltd v HMRC* [2019] UKFTT 0558, decided just one week before the IFA Congress seminar. The International Maritime Satellite Organisation("IMSO") (an international organisation established by treaty and exempt from corporation tax under the terms of that treaty. See: ***Schwarz on Tax Treaties***, 5th Ed, Chapter 2, para 10-175) bought and launched six satellites which were the subject of a sale and lease back to the IMSO. The IMSO later transferred its business to a commercial company. The Tribunal concluded that Inmarsat, the commercial company did not qualify for Capital Allowances in respect of the acquisition and launch costs because the satellites did not belong, nor were deemed to belong to Inmarsat as successor to the IMSO's business.

In *Vodacom Nigeria v FIRS*(CA/l/556/2018), the Nigerian Court of Appeal considered the VAT treatment of perhaps one of the most common commercial arrangements for the application of satellite technology. A satellite operated by a Dutch company supplied bandwidth capacity for use in Nigeria. The bandwidth was transmitted by the Dutch company to its satellite in geo-stationary orbit which in turn transmitted the capacity to the earth station in Nigeria of a Nigerian company. The court ruled that the supply was one of services rendered in Nigeria and VATable.

An early example, of a similar arrangement, naturally emanating from California, was *Communications Satellite Corporation v. Franchise Tax Board* 156 Cal. App. 3d 726 203 Cal. Rptr. 770 (Cal. App. 1st Dist. 1984) which involved the operation of a satellites in geostationary orbit (a speed equal to the earth's rotation to maintain stationary position) over international waters. The satellite owners, outside California, had an earth station in California that received communication signals for onward transmission through independent carriers. The California Court of Appeal upheld inclusion of the value of the satellites in the property element in apportioning California income tax on the basis that the satellite was used in the state. This was however dependent on the presence of the earth station, without which, the satellites function in outer space would have no connection with California.

Modern operating models typically involve the receipt of the communications signal by the customer's earth station or, in the case of individual customers, by a satellite dish, phone or other device.

Some years later, the Indian courts and tribunals concluded in a series of cases, that a satellite in geo-stationary orbit does not give rise to a business presence or permanent establishment in India and that payments for the use of transponder capacity do not constitute royalties within article 12(2) of the OECD Model Treaty.

In the leading case, *Asia Satellite Communications Co. Ltd. v. DIT* [2011] 332 ITR 340 (Del), two Hong Kong owned satellites were in geostationary orbit that was not within Indian orbital slots allocated by the International Telecommunications Union and were not positioned over Indian airspace. The satellites' transmission footprints extended over several countries including India. The satellite operator agreed to provide the transponder capacity on the satellites to television broadcasters to relay their programmes to customers in India. Unlike the California court in *Comsat* and the Nigerian Court in *Vodacom* Nigeria, the Indian tribunals and courts have examined the technical operation of communications satellites in some detail in coming to their conclusions- an essential ingredient in assessing the taxation of technology related transactions.

Outer Space commerce

While the exact point at which the territory of states ends and outer space starts is unsettled, there is a significant amount of commercial activity already undertaken and more planned beyond territorial boundaries. Research and development, filming of advertising and tourism are included in activities on the international space station 400 km from the Earth's surface. In some cases, human activity is required while in other cases such as the Hubble telescope and the International Gamma Ray Astrophysics Laboratory are robotically operated. Asteroid mining or mining on the Earth's moon, low gravity manufacturing on the moon and other activities are no longer in the realm of Science Fiction.

Traditional analysis of questions such as where services are performed or supplied, whether a fixed

place of business exists on other celestial bodies all point to a common conclusion that, rather like activities on the high seas or Antartic, the only basis for earth-based taxation is the residence of the person undertaking the activity.

Space remains a hostile environment for individuals. Typical tours of duty to the International space Station are around six months and Valeri Polyakov, a Russian cosmonaut holds the record, having stayed aboard the Mir space station for more than 14 months. These indicate that it is already realistic for individuals to cease to be resident in any state when they go to work in space. Technology advances will likely extend this ability. If individuals can be so non-resident, then it becomes plausible for companies whose management and control is exercised in space similarly to be resident outside planet Earth.

Dreamers or schemers?

Case law on the taxation of space -related exploits suggests some fertile imaginations. *Laliberté v The Queen* [2018] TCC 186 concerned a 12-day trip to the International Space Station by Guy Laliberté, controlling shareholder of the famous Canadian Cirque du Soleil. The C$41.8 million ticket was paid for by his company. He argued that the trip was a stunt marketing event for the company and therefore a deductible marketing expense. The earth-based Tax Court of Canada ruled however that 10% of the cost was a deductible expense for the company. The balance was a shareholder benefit because the primary purpose of the trip was overwhelmingly personal.

Lunar Missions Ltd v HMRC [2018] UKFTT 7 involved an inventive plan for a crowd funded, unmanned robotic landing module at the South Pole of the Moon. The mission involved drilling to a depth of at least 20m (10 times deeper than has ever been drilled before) to discover the geological composition of the Moon, the ancient relationship it shares with earth planet and the effects of asteroid bombardment by accessing lunar rock dating back up to 4.5 billion years. Participants in the mission could include anything they wish in a time capsule placed inside the borehole. A £60 contribution for example allowed space for data or for a strand of the contributor's hair. The terrestrial UK First-tier Tribunal ruled that the voucher for the £60 contribution attracted VAT at the standard rate. The place of supply was not discussed.

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*With apologies to Captain James T. Kirk and the starship Enterprise.

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