SUBSEA CABLES TAP FUNDING MARKETS

THERE ARE APPROXIMATELY 7.67BN MOBILE PHONES IN THE WORLD, COMPARED WITH 7.44BN PEOPLE. SMARTPHONES HAVE NOW OVERTAKEN LAPTOPS AS THE MOST POPULAR DEVICE FOR ACCESSING THE INTERNET AND THESE DEVICES HAVE TRANSFORMED THE WAY WE NOW COMMUNICATE WITH EACH OTHER.

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In many developing countries, first time mobile phone users now inhabit 3G and 4G networks straight away. As the popularity of smartphones increases, and technology improves so that internet speeds increase, so does the public's demand for high-bandwidth content and applications (such as Skype, Netflix and YouTube).

YouTube's own statistics show that more than 500 hours of online video are uploaded to YouTube every minute (an increase from 300 hours per minute in 2014 and 100 hours per minute in 2013). Networking company Cisco estimates that nearly 1m minutes of video will cross the internet every second by 2018.

Two-thirds of all internet traffic is now video content; the demand for on-line video content and the advent of "cloud" computing (and in particular inter-continental cloud computing) has contributed to the huge increase in use of bandwidth data. Household bandwidth requirements are poised to increase by 31% annually over the next five years, from a peak hour average usage per household of 2.9Mbps in 2015 to 7.3Mbps in 2020 and mobile bandwidth consumption is expected to increase fivefold per user over the next three years.

As the primary mode of inter-continental communication, subsea fibre-optic cables now carry an estimated 98% of all international voice, data, video and internet traffic. The increase in demand for high bandwidth data has led to a huge increase in demand for inter-continental data connectivity, and accordingly an increase in the demand for capacity on subsea fibre-optic cables.

The majority of new subsea cable investments in recent years have been in Africa and Asia; however, many subsea cable projects are now under development for Latin American routes and also between Europe, North America and Asia.

In part, the investment in subsea cable projects in Africa and Asia was driven by a marked increase in affordable broadband penetration in those markets. This in turn led to an increase in individuals and enterprises in those markets accessing data hosted in other countries, as well as an effort to find the most cost-effective way to access the internet, all of which drove demand for inter-continental connectivity.

The development of a subsea cable system is similar in many respects to the development of any large-scale infrastructure project, but the process entails a number of distinguishing characteristics that have important legal and commercial ramifications.

For example, unlike in a power project, the geographic scope of a subsea cable project will stretch across thousands of miles. Sponsors and lenders must therefore be cognisant of the myriad legal schemes (some of which may be conflicting) that will have jurisdiction over their cable system.

Knowledge of these overlapping legal schemes must also be combined with a solid understanding of the high degree of technical specificity and expertise required to build a subsea cable system, starting with market demand surveys and desktop routings through to the actual deep-sea laying of the cable. In addition, sponsors must understand how to develop and manage cable systems, including how to:

(i) Select and negotiate landing, backhaul, metro fibre and interconnection rights;

(ii) Market and sell the capacity on their cable system to their customers;

(iii) Establish and operate a network operations centre (a NOC); and

(iv) Mitigate potential outages, whether due to earthquakes, ships' anchors or equipment failure (the project risk that inquisitive sharks pose remains, thankfully, an urban myth).

Given the wide array of skills required to develop, construct and operate a subsea cable system, unsurprisingly, there is no established blue-print for how to successfully finance a subsea fibre-optic cable project.

For a long period, the consortium approach dominated the subsea cable industry. The consortium model originally developed as a consequence of the Bell Systems' monopoly in the US and similar monopolies in most other countries around the world during most of the 20th century.

The consortium model was attractive to telecoms operators because it enabled risks (and therefore costs) to be shared among a number of operators. Most importantly, at the height of the consortium era these carriers generally did not compete against each other since each was primarily focused on its own home market.

Under the consortium approach, each participating telecoms operator would invest in the project, as a co-owner, in exchange for an allocation of bandwith capacity on the cable proportional to its equity interest. The consortium member would then be free to sell its allocated capacity to a third-party buyer, or use that capacity for its own telecoms network.

As the telecoms industry has evolved and carriers now compete directly against each other in numerous markets, the complexity of a multi-party ownership structure dependent upon cooperation for planning, build and system upgrades has become more challenging.

Debt financing for a consortium project could be provided to a special purpose vehicle (SPV) established to own the cable, with recourse to the consortium members, or each consortium member could separately finance their participation in the project either on-balance sheet (especially if that consortium member is investment grade) or by way of an external debt financing.

If the financing is provided to the SPV, differences in creditworthiness of the consortium members become relevant as lenders to a project will be concerned with how they would hold each sponsor liable (either jointly and severally liable for the full amount, or merely severally liable for each member's proportional share of the debt). In addition, whether an SPV is used or not, ultimately the consortium carriers are linking their credit risks to each other, since a failure by one member to fund will result in an increased pro rata exposure by the other members.

In recent years we have seen the traditional end-user dynamic of the subsea cable industry be transformed as dominant internet content providers, such as Google, Microsoft, Amazon and Facebook, have overtaken telecoms operators as the largest consumers of bandwidth. While there is some evidence that certain of these content providers have been willing to embrace the consortium approach, to-date they have not shown a willingness to undertake such a project alone.

The entrance of these internet content providers, and their seemingly insatiable appetite for international bandwidth, has, however, created a market for speculative independent cables, which are seeking to be funded using project finance on the basis that eventually there will be strong demand for capacity on that cable.

From a telecoms industry perspective, the new independent cable operator approach is seen as a "consortium 2.0" approach. That said, although many new subsea cable systems have been built since the industry came out of the crash of the early 2000s, to-date few have been successfully financed in this way.

In part, this is due to the costly failure of a number of high-profile subsea cable projects during the early 2000s that brought about an exodus of institutions willing to finance subsea cable projects.

Added to that, the initial development capital required to achieve full project funding can be daunting for those not well versed in greenfield infrastructure projects.

As a result, in order to bridge the risk (or perceived risk) financings of subsea cables in recent years have often required the involvement of a multilateral institution (such as the World Bank) and/or an export credit agency (ECA).

Debt and equity finance generally consider the following risks when investing in subsea cable projects:

- *Construction* – In a conventional subsea cable project, although the design, construction and installation of the cable system is a complex process, these complexities are well known and understood by the industry; in other words, the cable technology is considered to be proven. However, both the marine surveys (which are critical to determine the optical laying route) and the laying of the cable itself are heavily dependent on weather conditions.

Unworkable weather conditions can, and do, lead to delays in the construction schedule, which translates into increased costs. For example, the North Atlantic has some of the most inhospitable weather conditions in the world and if cable laying takes place outside of the optimal weather window, there is a significant risk of a costly delay in achieving the "Ready For Service" date (RFS). Lenders typically will expect to see this risk mitigated by ensuring that there is sufficient contingency in the project's construction budget to cope with a reasonable number of weather related days.

- *Irregular cashflows* – The owners of subsea cable systems will typically sell capacity by way of an IRU, which, in general terms, is an exclusive, unrestricted, and indefeasible right to use the relevant capacity. IRU fees are generally paid as a lump sum shortly after the RFS date. The capacity customer will then pay the owner an O&M (operations and maintenance) fee for the duration of the IRU term, but this O&M fee typically will only be in an amount equal to 3%–5% of the IRU fee.

In a project financing with a long-term tenor, this cashflow structure creates interesting issues for sponsors and lenders to consider, as large amounts of revenue come into the project at the outset of its operational period. Naturally, sponsors would like these revenues (to the extent not required for short-term debt service or operating costs) to be distributed, but, as the debt is to be repaid over a long period of time, lenders will be concerned as to the project's ability to generate future revenues (by way of IRU fees) to repay the debt, especially as there is finite revenue generating capacity on the cable.

There is no hard and fast rule as to how this issue should be resolved, and much will depend on the respective bargaining power of the parties.

Standard project finance ratios such as DSCR and LLCR are also challenging to implement with front-ended revenues, but mechanisms such as senior debt prepayments triggered by shareholder distributions and locked cash reserves being included in financial ratios can help both lender and borrower reach satisfactory positions on these issues.

- *Tenor* – Also related to the revenue profile of subsea cable businesses is the question of how to determine what is the appropriate tenor for a project finance loan based on an infrastructure asset that has a typical life of 22–25 years. Equivalent asset lives in other perhaps more traditional infrastructure projects would see tenors extend well beyond 10 years, if the market risk were mitigated by the quantum of contracted revenues that is often in evidence on cable transactions. But with revenues from IRUs so front-ended, lenders and borrowers alike are aligned in their interests to consider keeping tenors shorter.

Lenders benefiting from the ability to be repaid (or prepaid) from significant cash generated in the early years of operation, and borrowers perhaps pleased to refinance what might be considered a highly restrictive and costly debt instrument, which was critical to their ability to have the asset built in the first place but is no longer appropriate once the operational asset has enabled the business to look more "corporate" than "project" from a bankers perspective of risk.

- *Uncertain revenue forecasts* – Project finance lenders typically will require the project to have at least one anchor tenant with a strong credit rating. Having an anchor tenant affords the lenders some comfort, initially at least, that a certain amount of capacity on the cable system will be pre-sold at the time of the initial funding of the debt and equity financings. Regardless, sponsors will push for lenders to take some market risk so as to preserve the ability of the project to sell capacity at a later date in the project development cycle (when it will be able to charge a higher amount and thus increase equity returns). Customer credit risk can also be mitigated with tailored discounting mechanisms based on external or proxy ratings and/or lenders looking at risk on a portfolio basis.
- *Satellites and competing cable systems* – There are a number of subsea cable projects being developed around the globe. In addition, satellite communication systems are expected to be able to provide lower latency in the coming years than they did in the past, which may start to offer stronger competition for subsea cables on lower demand routes where the substantial savings in unit cost afforded by subsea cables cannot be realised. It should be noted, however, that, subsea cable systems currently retain a significant advantage over satellite communication systems in terms of the greater bandwidth, lower unit cost and longer life expectancy that they can offer.
- *Environmental, permitting and other regulatory requirements* – Project finance lenders will be focused at the outset on establishing that the permitting and regulatory requirements for the project are predictable. All countries are likely to require some form of environmental permit and/or sea bed occupancy agreement(s). Depending on the project, permits and licences can take anywhere between six and 18 months to obtain. Lenders therefore will seek to establish at the outset that the sponsors have commenced the permitting and licencing process, including an analysis of all licences and permits that will be required.

Portland Advisers and Milbank advised Seaborn Networks on its financing to build the first direct submarine cable connection between New York and São Paulo. The cable project, known as Seabras-1, cost approximately US$500m and is the first ECA-backed project financing of a subsea cable system.

In 2015, Seabras-1 achieved financial close for its approximately US$270m debt project financing, which comprised a debt facility backed by the French ECA Compagnie Française d'Assurance pour le Commerce Extérieur (Coface). Equity financing for Seabras-1 is being provided by Partners Group, the global private markets investment manager. The Seabras-1 cable network is being constructed by Alcatel-Lucent Submarine Networks. ASN commenced construction works in September 2014 and the Seabras-1 cable network is expected to become operational within the next two years.

Since the advent of the commercially financed independent cable operator model, Milbank has been advising in the subsea cable sector and has been involved in many subsea cable projects, including representing Global Crossing Ltd and its affiliate Asia Global Crossing. In addition, Milbank currently advises the lenders on a project financing arranged by Nomura for the America Europe Connect (AEConnect) transatlantic subsea cable system. The AEConnect cable system achieved RFS in January 2015 and will provide low latency connectivity to satisfy the bandwidth requirements of global data centres, cloud-based networks and content providers, such as its anchor tenant, Microsoft.

For its part, Portland Advisers is a financial adviser on telecoms sector project and structured financings, with current mandates supporting both borrowers and ECAs on an independent cable operator subsea cable project, and several new development-focused satellite financings. Aside from Seaborn Networks, the Portland team has recently advised O3b Networks, Kacific, Skybox Imaging and Azercosmos on their respective financings, with over US$1.5bn of senior debt successfully raised on a project or structured finance basis.

Seaborn Networks is a leading independent developer of subsea fibre-optic cable projects, having pioneered the application of ECA-backed project financing for Seabras-1, a 10,800km trans-oceanic fibre-optic cable between New York City and Sao Paulo. ■