

# STRUCTURING FOR SUCCESSFUL FINANCINGS OF SUBMARINE FIBER OPTIC NETWORKS

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**Abstract:** The revival of the submarine cable industry has seemingly commenced, but new cable systems and expansions and upgrades of existing ones will not come to fruition unless adequate funding is available. This paper reviews the principal financing options available in the markets following the collapse of several years ago, with a focus on project financings. The requirements of lenders for fully funded business plans, with adequate assurance of customer revenues are explored, along with an assessment of the pros and cons of various forms of financing. The paper concludes with the view that by tailoring financing precisely to particular risks and problems, the industry will be able to meet its financing needs – but the increased complexity will pose unique challenges for all project participants.

## 1 THE RESUMPTION OF GROWTH AND THE NEED FOR FINANCING

As is often the case in many industries, natural disasters can sometimes throw a new light on business opportunities. The December 2006 undersea earthquake near Taiwan, which severely disrupted many Asian submarine communications cables, has prompted discussions of new cable systems, both to expand current redundancy as well as to provide for anticipated new demand.

This comes at a time when the subsea industry is poised for a new phase of significant growth, following several painful years of underinvestment and disinvestment. A revival has clearly commenced, fueled almost entirely by somewhat unexpectedly strong levels of growth in demand for Internet connectivity and bandwidth. That demand is driven by the ever-increasing bandwidth requirements of new applications and the general explosion in video and graphic images transmitted over the Internet. As the Internet becomes less US-centric, and more content is located on servers in Asia and Europe, there is a corresponding demand for bandwidth available through submarine fiber optic cables, particularly in the Asia-Pacific region as well as the Caribbean, the Indian Ocean, the Middle East, Africa and Latin America.

This promise of new submarine cable systems and expansions and upgrades of existing ones will, however, not come to fruition unless adequate funding is available. Of course, some operators and system owners are in a position to fund new growth out of internally generated cash, but doing so without any debt leverage is rarely attractive from the point of view of tax minimization or of return on investment. Moreover, many operators and sponsors – especially in the developing world, where much of this activity will be

centered – do not have the financial resources to sustain the massive investment represented by a new submarine cable system or a major expansion. Consequently, industry growth will in large part be contingent upon the availability of debt or equity financing from outside the industry.

## 2 THE ROLE OF DEBT PROVIDERS AND THEIR VIEW OF RISKS

While there is a role for equity, it is limited, and thus this paper will focus on capital raising in the form of debt, whether from the capital markets or the commercial bank market. At least for the submarine cable sector, the debt capital markets will in most cases not be an easily accessible option, since the institutional investors who furnish the funds in those markets are often looking either for investment-grade opportunities (which the sector rarely supplies) or higher-yielding opportunities in acquisition finance (which will be touched upon below). Those institutional investors are typically not interested in, or are not in a position to fully understand, the complex risks and assumptions involved in the construction or expansion of a submarine cable project. By contrast, commercial banks, with their large credit staffs and, in some cases significant experience in the sector, are in a better position to evaluate such projects. Commercial banks are often willing to accept the construction risks associated with these projects and have the ability to provide funds for the short to medium term (typically up to ten years), by which time a project could become profitable and capable of refinancing its debt on a long-term basis or, ideally, pay it off entirely.

There are a number of obstacles that banks take into consideration when evaluating a submarine cable project. First is the sheer size of the debt, with project capital expenditures in the several hundreds of millions of dollars not uncommon. Moreover, the dismal returns

creditors witnessed in the high-profile restructurings and liquidations a few years ago for FLAG and Pacific Crossing (to name just two) gave them no assurance that a market existed to salvage any future investments that might run into trouble. Bank credit committees also look skeptically at revenue models, as most projects do not derive all of their revenues from committed sales in the form of long-term sales arrangements such as indefeasible rights of use (IRUs) or other lease arrangements with creditworthy customers. Many projects depend instead on sales on a spot basis or short-term contractual arrangements, thus adding a significant amount of market volatility to the credit analysis. Banks are also not unaware of alternative capacities in the form of satellites, let alone competing cable systems – as well as the continued march of technology that might spell obsolescence for some aspects of submarine cable systems. Finally, while actual construction risk in submarine cable projects is perceived to be manageable (reflecting the vast amount of experience accumulated by the industry), overall project risk on any particular installation is still not insignificant, given complex and sometimes increasing stringent environmental, permitting and other regulatory requirements. All these factors add to the risk profile as viewed by commercial banks.

Offsetting these impediments are a number of positive trends, the most salient of which is that commercial banks are very liquid and are searching for attractive investment opportunities in which to deploy their funds. The equally great liquidity in private equity funds is also a factor, as private equity investors have now recognized that the submarine cable industry has the potential for significant returns. Acquisitions by private equity can spur consolidation and greater network investment, as newly acquired companies expand their business under new management, and other operators react to a now well-capitalized competitor. Of course, all of this activity generates more borrowing, both for the acquisition finance as well as capital expenditure finance.

### **3 STRUCTURAL OPTIONS FOR FINANCING**

Obviously, the financing needs of submarine cable operators will vary, and their position in the market will dictate different approaches to financing. The stage of development (startup versus mature company), financial resources of shareholders, scope and complexity of the project, strength of revenue and customer base, inherent political risk and other factors must all be taken into account in determining the right structure for financing capital expenditures. An exhaustive review of every permutation is beyond the scope of this paper, but a discussion of project financings will be most revealing of issues that arise in any type of financing. It is likely that the financing of submarine fiber optic networks will continue to rely

heavily on project finance techniques, partly because “corporate style” or investment grade financings are rarely available in the sector and because the project finance structure affords an excellent mechanism for addressing the risks and difficulties present in start-ups and new installation projects.

Before turning to project financings, it should be noted that owners of submarine systems that are “investment grade” will always have the option for financing network expansions on their own balance sheets. At investment grade credit ratings, investors (whether in the debt or equity markets) will be less concerned with specifics of the project and demand forecasts and more focused on the overall credit strength of the issuer. For such issuers, the question is basically one of market timing (and resultant pricing) and whether a company wishes to use its debt capacity (or sell its equity) for the purpose of funding submarine network capital expenditures. Some companies might prefer to finance such capital expenditures at the project or subsidiary level rather than use up precious balance sheet capacity. In investment grade financings, structural issues, legal and permitting risks and other project-specific matters recede into the background, as investors focus essentially on the health of the issuer’s balance sheet.

By contrast, those project-specific matters are at the very heart of a “project financing,” in which debt providers closely scrutinize all aspects of risk and skeptically evaluate the revenue potential of a particular project. A key advantage of the project finance route – as opposed to using the corporate balance sheet – include the ability to leverage the financing to a higher degree than what could be applied to the owner/sponsor itself. Another project finance benefit is the non-recourse nature of project finance debt, in which the shareholder/sponsor is not liable for the debt incurred by the operating entity, and thus the debt does not burden the sponsor’s balance sheet.

A few years ago, equipment vendors such as Lucent, Alcatel and Tyco were more than willing to provide loans as a foundation stone of a project financing, but given the credit reversals they have all suffered, their appetite for vendor financing is dramatically reduced if not almost nonexistent. Equipment vendors are, however, in an excellent position to supply the early money – they have the sophistication and industry expertise to evaluate project risk, and no other financing source will be as knowledgeable at the pre-revenue stages of a project. Vendor financings are designed so that vendors can turn around and resell their “bankable” loans (perhaps at a slight discount) to commercial banks or into the securitization marketplace. Multilateral institutions (such as the International Finance Corporation, an affiliate of the World Bank, and the various regional development banks, such as the Inter-American Development Bank and the Asian

Development Bank) and export credit agencies or “ECAs” (such as the Export-Import Bank of the United States, KfW and Export Development Canada) might also play a role, as they are increasingly willing to promote communications infrastructure. ECAs typically finance only a portion of the purchase price for an exporter’s equipment, and generally require that at least 20% of a project’s cost be furnished in the form of equity, but multilateral agencies are not subject to such restrictions. The financings furnished by ECA’s and multilateral have a number of advantages. Those institutions are often willing to lend in high risk circumstances where commercial banks will not, their interest rates will usually be lower than comparable financings with commercial banks, and they typically have a more lenient approach to waivers and default scenarios. On the other hand, because of their social policy and development goals, those institutions often impose additional reporting requirements, insist on stringent environmental compliance and can be less nimble in executing transactions than their commercial counterparts.

Counterbalancing the advantages of the project finance model are a number of drawbacks. Project financings are highly structured and thus complex undertakings with substantial transaction costs (including upfront fees for banks as well as professional fees for lawyers and various engineers and consultants retained by each of the project company and the lenders). The scope of the typical submarine fiber optic cable network development project creates a need for multi-party, multi-layer, multi-jurisdiction financing packages where costs and risks are shared across and among sponsors, vendors, lenders and investors. The significant amount of debt that must be raised for large projects entails a higher amount of risk, which is often apportioned among several tranches of debt, with senior lenders accepting slightly lower interest rates in return for greater assurance of repayment, and junior tranches of debt charging higher rates to reflect greater risk. A project might, for example, have loans or guarantees from vendors, one or more tranches of debt from commercial banks and ECAs, and perhaps even public or privately placed debt sourced from the capital markets. Each of these credit transactions may require separate documentation, and intercreditor arrangements must be negotiated to tie the entire package together. The complexities involved contribute to longer lead times required to complete the financing and to begin construction.

Financing is further complicated by the problematic nature of the collateral security interests afforded by an undersea cable system. The most obvious challenge for credit providers is that there is no single facility that can be mortgaged, and instead the real value is inherent in the network itself. Out of this fact grow two specific problems. First, using a submarine cable network as

collateral will entail grants of liens on highly variegated property (ranging from real estate to electronic equipment and subsea cables) in multiple legal jurisdictions. Second, even if such liens were granted, enforcement would be a nightmare, with a piecemeal approach to foreclosing on individual components – effectively negating the entire value of the network. There is no one solution to enable lenders to perfect their liens on the entire cable system. The portion lying in international waters is not subject to any collateral security scheme. In addition, lenders will seek a security interest in the project’s landing rights, which may not be assignable under local law, and, most importantly, in its contractual rights (including any pre-sold arrangements or capacity commitment contracts where they exist, and cable maintenance agreements). A security interest in IRUs and other customer contracts would obviously be more attractive where there are just a few large customers that generate a substantial part of a system’s revenues. In any event, lenders would typically want such major customers to acknowledge the security interest, and that requirement introduces another group of players into the financing (albeit only for purposes of fulfilling conditions precedent to obtaining the loan). Some creditors remain skeptical of the value of liens on IRUs – even assuming a network were to remain intact and capable of providing uninterrupted service following financial distress – as there is surprisingly little experience in enforcing IRUs against customers where the operator is the subject of a bankruptcy or liquidation proceeding. In many legal regimes, the operator or the customer might have the right to terminate the IRU upon the occurrence of such a proceeding, rendering the contract of no value to the foreclosing lender (precisely when it most needs it).

Invariably, a creditor’s response to the challenges of obtaining (and potentially enforcing) a lien on a submarine cable company’s assets is to seek a pledge of its shares of capital stock where possible. Clearly, this will be inappropriate in the case of a public company (but such a company is less likely to utilize project financing in any event) and it may be difficult where minority shareholders are involved. Moreover, by its very nature, a pledge of shares is effectively subordinate to creditors at the operating level, since the shares can reflect only the net worth of the company. Notwithstanding its subordinate nature, however, a pledge is far more simple to create and it does afford ease of foreclosure. There is an added benefit relevant to submarine cable companies in that upon foreclosure on the shares, ownership of the company (albeit subject to the company’s debt) carries with it not only the varied assets but also licenses, permits, contract rights and other intangible property on which it might be difficult to obtain a lien.

Another set of issues complicating life for the lender grows out of the corporate structure of the borrower. Broadly speaking, there are two types of submarine cable owners: “old fashioned” consortia of telecom operators who use the system for their own traffic, and “speculative” corporate models (such as Global Crossing) that rely on sales to third parties. Either type generates potential difficulties. In the latter model, corporate structures are typically very complex, driven by the sponsor’s desire to minimize taxes. The principal cable owner is often established as a Bermuda or other tax haven domiciliary, with separate entities elsewhere owning cable assets in their own jurisdictions or furnishing system-wide billing or maintenance services. At least in the global or larger systems, the sheer number of entities presents challenges in any financing, as lenders need to track cashflows and dividend streams through the corporate labyrinth and seek stock pledges of multiple companies in many countries. Finally, consortia corporate models present their own set of challenges. A consortium obviously diversifies risk and affords a range of expertise as well. With a consortium of sponsors, however, lenders may have to be reassured that there is a meaningful way to hold each sponsor accountable for its obligations, and the problem is exacerbated when the sponsors are of unequal creditworthiness.

#### **4 REQUIREMENTS FOR FINANCING IN TODAY’S DEBT MARKETS**

Whatever the form of the financing, submarine fiber optic network projects will need to be structured to meet today’s realities. Business plans will need to be “fully-funded”, and ones that are not supported by highly reliable projections of demand and cash flow will not entice lenders. Convincing assessments of demand for a system’s capacity will be even more critical given the recent decline of capacity prices (which have seemingly stabilized and may be poised for rebound) and of the more limited availability of long-term, fixed-price capacity commitments. Commercial banks and capital market investors will typically discount a project’s revenue projections by 10% or more, to be conservative, and want to verify that even in a reasonable worst-case, revenues should be sufficient to repay the debt in the agreed upon period. While commercial banks are willing to make bridge loans to fund acquisitions or initial expenditures, they will do so only in the context where the refinancing is relatively assured. Furthermore, lenders can be expected to scrutinize both the creditworthiness of “anchor tenants” or any customers that account for a significant percentage of the business plan, and the actual terms of the contracts (*e.g.*, such as provisions allowing a customer to terminate or imposing onerous conditions on the operator).

Lenders will craft “debt service coverage ratios” as covenants in loan agreements, requiring operators to have specified multiples of cashflow in excess of principal and interest obligations, as well as “leverage ratios” limiting the total amount of debt relative to earnings (which often is tied into interest rates on the borrowing). Further protection for lenders might come in the form of a debt service reserve account, which would be funded with at least six months’ (sometimes a year’s) worth of projected debt service payments – designed to smooth over bumps in the event of a project’s temporary financial difficulties. The negative arbitrage of having its funds tied up in such an account for the duration of the loan, rather than deployed in its business, will be one of the incremental costs of the company’s financing. A project owner should also expect that the credit documentation would contain restrictions on undertaking new business activities or investments beyond what is specifically contemplated in the current business plan, and on the payment of dividends. Strong project borrowers may be able to negotiate a formula permitting dividends to be paid on a current basis along with repayment of the debt if earnings are sufficient; and investment grade borrowers would be essentially free of such restrictions.

Lenders will expect strong sponsor support of the projects. Sponsors will likely need to demonstrate a debt-equity ratio in the 50-50 or perhaps 60-40 range, instead of the 70-30 (or better) range that had become acceptable during the dot-com boom. Lenders may also require that equity be funded up front, instead of on a *pro-rata* basis as had become acceptable.

#### **5 CONCLUSION**

The current picture for financing in the submarine cable industry reflects the proverbial good news and bad news. There is significant liquidity in the debt markets, the industry is confident that its worst days are behind it and growth in demand will concomitantly spell increases in bandwidth prices and expansion of cable systems. These positive factors must still be applied to what is surely one of the more complicated and riskier industries. The creation, operation and maintenance of subsea cables presents a range of business risks that yield complexities and costs for financings. No one financing source or model is available to absorb these risks and meet the extraordinary capital requirement of the industry as it returns to an expansion mode. Rather, multi-sourced solutions to financing, with several debt providers over the life cycle of a project will be increasingly seen. By combining financing and equity ownership models in new ways and tailoring financing precisely to particular risks and problems, the industry will be able to meet its financing needs – but the increased complexity will pose unique challenges for all project participants.