

outset in order to secure the needed financing and as explained later in this report, such "front end" work is very difficult to finance from external sources of funds.

Financier comfort with the underlying project economic and project sponsors rests on a strong legal framework, since the only recourse lenders and equity suppliers have is to the legal documents that set out the obligations of all parties in a project. These legal issues can be daunting, particularly where a host (project) country does not have a legal system that provides for an understanding of contract law, a system of litigation to adjudicate contract disputes or lien laws for taking security interests. It appears that the legal costs to complete these types of projects have reached the point where they are considered as a significant "front end" burden.

The number of completed deals in the past ten years points to the growth in limited recourse financing. Approximately US\$30 billion in private, user fee supported infrastructure projects were financed from the mid 1980's to 1992 (the Chunnel accounted for a large proportion of this). Moreover, over the period October, 1992, to October, 1993, US\$25.7 billion in debt and equity funding commitments provide further evidence of the substantial growth of private investment in public infrastructure.

Such growth is expected to continue. For example, Public Works Financing International cites some 358 private-public infrastructure projects in the planning stages. These BOT/limited recourse projects are valued at US\$280 billion. Rail, toll road, bridge, tunnel and airport projects represent the largest share with power projects being the next largest. In fact, power deals account for the bulk of top project finance arrangers' (such as Barclays) deals. Other deals reflect the sectors that have been previously privatised in developed countries such as the UK and France. Thus, water/wastewater projects are also prevalent, but, the total size of these deals is well behind those in the transportation and power sectors.

Mitigation of Risks

As might be expected there is also a range of geographic risk that market participants must bear. In particular, Western European and Asian (mostly China and Hong Kong) BOT's account for almost 40% of the value of planned limited recourse projects. Furthermore, the privately sponsored infrastructure market is in the process of completing a number of exceptionally large projects such as the Chunnel and Hub River in Pakistan. Industry sources regard these large projects as having been exceptionally complex technical efforts as well as being difficult projects to complete politically. One reaction by project sponsors, governments and financial players is anticipated to be an increase in small and medium projects which are generally viewed as being more manageable.

Addressing the increased risks that are inherent in private sector financings have resulted in a number of important trends in financial engineering (which essentially deals with how risk is managed in relation to the expected return) and project finance. Such trends include: i) increased equity in projects; ii) new risk assessment skills required in light of the differently receptive political and economic operating environments; and, iii) new roles and challenges to International Financial Institutions