Kemica (Australia) – A

A Case Study in Valuation & Negotiation of a Petrochemical Joint Venture

Stephen V. Arbogast, Executive Professor
C.T. Bauer College of Business, University of Houston

Abstract

Valuation is a topic which typically assumes the presence of a willing buyer and seller. Consequently, it envisions a buyer prepared to pay a price in return for assets/operations which will generate future cash flows. The key valuation questions are whether those expected cash flows are accurately assessed and whether they generate an adequate return for the buyer relative to the purchase price.

Joint venture valuation involving existing operations is a different, less well understood, analytical exercise. When forming this type of joint venture the prospective partners plan to contribute operating assets. The key outcome for the partners is not a purchase/sale price; rather, it is the economic share they will receive of the partnership. In effect, this means that joint venture formation involving existing operations is a simultaneous acquisition/divestment. Each partner is, in effect, selling a part of its existing business in return for a share of the other partners' operations. This makes the valuation exercise more complicated. First, multiple operations must be evaluated. Second, the analytical focus needs to be less concerned with the absolute valuation of each business than with the correctness of their relative valuation. In effect it is the 'exchange rate' between the various contributed operations that must be valued correctly.

This more complex valuation exercise also complicates joint venture negotiation. Partners must exchange information and perform 'due diligence' on each other's businesses. Since absolute valuation is less critical than relative valuation, each partner has incentives to inflate the value of the operation it will contribute while demeaning the value of its future partner's business. In effect, the negotiation can become a "Liar's Competition" with obvious adverse implications for future partner relations. To avoid this, prospective partners have an interest in finding some more objective basis for conducting the relative valuation of their operations.

This case study involves the valuation and negotiation of a petrochemical joint venture. There are significant differences in the age, size, and quality of the assets, and also in the respective products produced and market shares. Both businesses face the fundamental challenges of the petrochemical business – feedstock availability and costs relative to the highly cyclical commodity prices of the products they produce. Finally, both operations face a growing competitive challenge from low cost Middle East chemical plants. The case asks students to tackle these fundamental and relative valuation issues in a manner that places objective boundaries around the partners' potential "Liars Competition."

This case study is based upon negotiations which led to the formation in 1999 of a polyolefins joint venture in Australia.