

## Sector – Chemicals and Petrochemicals

1. **Technology:** Superior technology is important. Partners should be leaders in their field and have good financial and technical resources. New technology requires process testing and tight contractual arrangements. Basic design flaws can undermine even mature processes.
2. **Sponsors:** Technical and financial strength, as well as direct knowledge and experience, are critical. Do not underestimate the difficulties of new venture start-ups by foreign-based sponsors. Although difficult, attempt to assess whether sponsors can work well together.
3. **Investment decisions:** Judge a project on its fundamental strengths, and pay attention to technical staff opinions. Negotiate detailed information access from the outset. Be willing to withdraw if IFC warnings are not heeded. Do not rely on government programs.
4. **Management:** Quality is vital. Board representation can improve influence over top management. Monitor carefully in the event of a change in management, and to ensure balanced attention is given to new and old businesses when a company diversifies.
5. **Business mix:** Analyze all significant businesses of a group, to ensure that the company can meet all its financial requirements. When considering investing in a company which plans to invest in other ventures, thoroughly evaluate the company's role in those ventures.
6. **Prices:** Long-term contracts should reflect market price determinants and not rely on government pricing policies or tariff protection. Forecasting margins is preferable to forecasting selling prices, but margins can change substantially.
7. **Exporting:** Conservative financing is important. Analyze market prospects and export competitiveness carefully, and be wary of export commitments.
8. **Equity investment:** Faced with economic and financial market volatility, consider more liquid investment instruments. Avoid being influenced by stock market sentiment. Consider ways to protect IFC's interest should there be major corporate changes.
9. **IFC's role:** Facilitating a client's access to international funding sources is an important role.
10. **Sensitivity analysis:** Discount financial projections for potential major structural changes in industry, sector or country. Structure projects to succeed at international prices.
11. **Input/output sensitivity:** Contractual penalties for shortfalls can mitigate the risks of reliance on a single input. If project success is dependent on a few consumers, secure firm off-take commitments.
12. **Competition:** Do not underestimate the response of competitors. Future technological developments can undermine competitiveness.

The above lessons are based on 52 lessons from past IFC investments.  
Last updated November 24, 1998.