In this chapter we investigate the interplay between operational and financial decisions within the context of a two-echelon supply chain. A retailer purchases a single product from a supplier and afterwards sells it in the retail market to a random demand. The retailer, however, is budget-constrained and is therefore limited in the number of units that he may purchase from the supplier. We study two alternative forms of financing that the retailer can use to overcome the limitations imposed by the budget constraint. First, we consider the case of internal financing in which the supplier offers financial services to the retailer in the form of a procurement contract. The type of contracts that we consider allows the retailer to pay in arrears a fraction of the procurement cost after demand is realized. Second, we consider the case of external financing in which a third party financial institution (e.g., a bank) offers a commercial loan to the retailer.

Our results show that the performance of the entire supply chain can be severely affected by the lack of financing and that it is in the interest of both players to find ways to finance the retailer’s operations. We also show that, for the most part, both the supplier and the retailer (and the entire supply chain) are better off by using internal financing rather than by relying on external financing. From the supplier’s point of view, we show that the value of offering internal financing...