Andreas Krause

Chapter 6.3

Break-up fees

Fees for abandoned mergers

- Investment banks advise on mergers and acquisitions, including conditions for transactions and whether to go ahead
- Investment banks face costs even if transactions are not going ahead, such as due diligence investigations
- Investment banks are paid if a transaction is completed, if it is abandoned, how much should they be paid?

Costs and fees

- Merger value and probability of a merger being completed are unknown
- Merger value V has distribution $G(V)$, probability of merger π has distribution $H(\pi)$
- Investment bank has fixed due diligence costs C_0 for any initial work, if the merger goes ahead, additional costs incurred are C
- Clients pay a fee F_0 if the transaction does not commence, and a total of F_1 if it commences
- F_0 is the break-up fee

Advice to commence merger after due diligence

- Investment bank learns π and V after the contract is signed and due diligence costs C_0 are already incurred
- Profits of investment bank are the fee if the transaction commences, alternatively the fee if it is abandoned, less the additional costs
- $\hat{\Pi}_B = \pi F_1 + (1 - \pi) F_0 - C$
- Investment bank advises to continue if $\hat{\Pi}_B \geq 0$, or $\pi \geq \pi^* = \frac{C - F_0}{F_1 - F_0}$

Investment bank profits

- Ex-ante π and V are not known, and profits are only made if the merger commences
- Investment banks also have to cover their initial due diligence costs
- $\Pi_B = \int_0^{+\infty} \int_{\pi^*}^1 \hat{\Pi}_B dH(\pi) dG(V) - C_0$
- Perfect competition implies $\Pi_B = 0$

Client profits

- If the merger commences the client gets the merger value, less the fee paid, and if the merger does not commence pays the break-up fee
- $\hat{\Pi}_C = \pi (V - F_1) - (1 - \pi) F_0$
- With V and π not known, and the merger only commencing if advised by the investment bank
- $\Pi_C = \int_0^{+\infty} \int_{\pi^*}^1 \hat{\Pi}_C dH(\pi) dG(V)$
- Clients want to commence a merger if $\hat{\Pi}_C \geq 0$, which gives $\pi \geq \pi^{**} = \frac{F_0}{V - F_1 + F_0}$

Maximizing profits

- We maximize client profits, subject to investment banks breaking even: $\mathcal{L} = \Pi_C + \zeta \Pi_B$
- We here chose $\zeta = 1$ and maximize joint profits, but other solutions are possible
- First order conditions $\frac{\partial \mathcal{L}}{\partial F_i} = 0$ give $F_1 = F_0 + \frac{C - F_0}{C} V$
- The full fee F_1 is a contingent fee, as it is only paid if the merger commences and the amount paid is dependent on the value of the transaction V

No conflicts of interest

- Investment bank advises to commence if $\pi > \pi^* = \frac{C - F_0}{F_1 - F_0}$
- Clients want to commence if $\pi \geq \pi^{**} = \frac{F_0}{V - F_1 + F_0}$
- This gives $\pi^* = \pi^{**}$ if we insert for F_1 and no conflicts of interests exist

Optimal break-up fee

- Using $\Pi_B = 0$, the optimal break-up fee is $F_0 = C + \frac{C_0}{\int_0^{+\infty} \int_{\pi^*}^1 \left(1 - \frac{\pi}{\pi^*}\right) dG(\pi) dH(V)}$
- As $\pi > \pi^*$, the second term is negative and hence $F_0 < C$
- The break-up fee is a conditional fee as it is fixed, but only payable if the merger does not commence
- This implies $F_1 > F_0$ and the full fee is higher than the break-up fee
- If $C < C_0 \left(1 - \frac{1}{\int_0^{+\infty} \int_{\pi^*}^1 \left(1 - \frac{\pi}{\pi^*}\right) dG(\pi) dH(V)}\right)$, then $F_0 < C_0$
- If the full costs are not too high, investment banks will not recover their initial fixed costs from break-up fees
- If the full costs are sufficiently high, banks will recover their initial fixed costs

Reasons for break-up fees

- If the additional costs are high, there is strong incentive for investment banks to advise abandoning the merger as recovering their costs will be difficult
- Having a high break-up fee allows them to recover some of these costs, making the incentives aligned
- With low full costs, the investment bank might want to proceed with the merger too often and the low breakup fee balances the incentives

Incentive-compatibility of break-up fees

- If investment banks do not know the transaction characteristics, break-up fees are optimal
- They align the incentives of investment banks and their clients
- Investment banks do not too often advise to go ahead with or abandon a the merger as they receive a fee even if advising to not commence the transaction, balancing these aspects

Implications of break-up fees

- Break-up fees are mechanism to align the incentives of investment banks and their clients
- Their use is not necessarily an arrangement that increases the profits of investment banks
- They increase the costs of clients abandoning a merger, making internal assessments by companies more important

This presentation is based on
Andreas Krause: Theoretical Foundations of Investment Banking, Springer Verlag 2024

Andreas Krause
Department of Economics
University of Bath
Claverton Down
Bath BA2 7AY
United Kingdom

E-mail: mnsak@bath.ac.uk