Andreas Krause

Chapter 17.1

Viability of partnerships

Outline

Characteristics of partnerships

- Investment banks were traditionally organised as partnerships
- The owners are actively engaged in the business, they are called partners
- New partners are appointed from existing employees, called associates
- New partner buy a stake in the company and if they leave, sell it to a newly appointed partner

, commercial banks quickly become incorporated. Partnership survive to this day in many management consultancy firms, accountancy firms, and law firms, while investment banks have mostly been incorporated in the second lhalf of the 20^{th} century.

Mentoring associates

- Partners can be either highly-skilled, generating surplus V_H, or low-skilled, generating surplus V_L
- A partnership has M partners
- Each partner mentors N associates, who might become partners, but until then only generate surplus V_L
- Mentoring costs C and partners do not know the type of partner an associate will be without mentoring
- Profits to a partner consists of his own surplus V_H and the surplus V_L of all associates he mentors, less the wages they are paid
- $\Pi_P = V_H + N\left(V_L - w_A\right)$

Profits of joining a partnership

- Associates do not know if they are highly skilled and chosen as partners, they assign probability $\frac{1}{N}$ to this
- If appointed as partner, they obtain their initial wage and in the next time period the profits of being a partner, less the mentoring costs
- If not appointed as partner, they obtain their initial wage and in the next time period gets paid his contribution
- $\frac{1}{N}\left(w_A + \frac{\Pi_P - C}{\rho}\right) + \left(1 - \frac{1}{N}\right)\left(w_A + \frac{V_L}{\rho}\right) \geq V_L + \frac{V_L}{\rho}$
- If not joining the partnership, they obtain their contribution in the current and next time period
- They join the partnership if this is more profitable

Decision to join

- Associates join the partnership if $w_A \geq V_L - \frac{(V_H - V_L) - C}{N(\rho - 1)}$
- If $C \leq C^* = V_H - V_L\left(1 + (\rho - 1)\, N\right)$, we can set $w_A = 0$
- If mentoring costs are not too high, the benefits from being a future partner are sufficiently high for associates to forego any remuneration
- This is feasible if $C^* \geq 0$, or $\frac{V_H}{V_L} \geq 1 + (\rho - 1)\, N$
- The surplus generated by highly-skilled partners have to be sufficiently high

- Problem and model assumptions
- Associates joining the partnership
- Taking up partnership offers
- Not appointing unskilled partners
- Mentoring of associates
- Summary

Value of partnership

- Partners are paid wages w_P, reducing the profits of the partnership
- Associates are paid $w_A = 0$
- Profits of the partnership is then $\hat{\Pi}_B = \Pi_B - w_P = V_H + NV_L - w_P$
- These profits accrue in perpetuity, hence the value of the partnership is $P^* = \frac{V_H + NV_L - w_P}{\rho - 1}$

Payment if partnership is refused

- Associates not appointed partners join the job market, there will be $M(N-1)$ unskilled associates generating V_L each
- If a highly-skilled associate rejects the partnership, he will generate V_H and the number of former associates in the market is $M(N-1)+1$
- Average surplus is then $\frac{M(N-1)V_L+V_H}{M(N-1)+1}$, former associates can earn this wage outside the partnership

Condition to accept a partnership

- If joining the partnership they get $\Pi_P - C$
- Highly skilled associates join the partnership if $\Pi_P - C = V_H + NV_L - C \geq \frac{M(N-1)V_L + V_H}{M(N-1)+1}$
- This requires $C \leq C^{**} = \frac{M(N-1)V_H + \left(M(N-1)^2+1\right)V_L}{M(N-1)+1}$
- If mentoring costs are not too high, accepting a partnership is optimal

- Problem and model assumptions
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Unskilled associate accepting the partnership

- If an unskilled partner is appointed the investment bank loses reputation and it cannot be sold
- Unskilled partners will generate surplus V_L and obtain surplus V_L from each associate and they have previously spent P to purchase the partnership, which cannot be recovered
- If not a partner, the unskilled associate would obtain V_L
- Accept the partnership if $V_L + NV_L - \rho P \geq V_L$
- This requires $P \leq P^{**} = \frac{NV_L}{\rho}$

Avoiding appointing unskilled partners

- If no highly skilled associate is available, $M-1$ partners remain, the total value of the partnership is then $(M-1)\,P^*$
- If an unskilled associate is available, we retain M partners, the total value if the partnership is MP^{**}
- Unskilled associates are not appointed if $(M-1)\,P^* \geq MP^{**}$
- This requires $w_P \leq w_P^* = V_H + \left(1 - \frac{\rho-1}{\rho}\frac{M}{M-1}\right) NV_L$
- For $w_P^* \geq 0$, we need $\frac{V_H}{V_L} \geq N\left(\frac{\rho-1}{\rho}\frac{M}{M-1} - 1\right)$
- The benefits generated by highly-skilled partners have to be sufficiently high

Not appointing new partners

- Partners must have incentives to mentor associates
- If a partner does not mentor and does not appoint an unskilled associate, there are only $M-1$ partners left
- These $M-1$ partners generate future profits, but this is shared by M partners, the value becomes $\frac{M-1}{M}P^*$
- If mentoring associates, the value of the partnership is P^* and the partner faces costs C, he receives P^*-C

Conditions to mentor associates

- A partner will mentor if $P^* - C \geq \frac{M-1}{M} P^*$
- This requires $C \leq C^{***} = \frac{V_H + NV_L - w_P}{M(\rho - 1)}$
- If we set $w_P = 0$ this is least restrictive
- If mentoring costs are sufficiently low, partners are mentoring associates

Conditions for partnerships to exist

- $C \leq C^{*} = V_H - V_L \left(1 + (\rho - 1) N\right)$

  $C \leq C^{**} = \frac{M(N-1)V_H + \left(M(N-1)^2+1\right)V_L}{M(N-1)+1}$

  $C \leq C^{***} = \frac{V_H + NV_L}{M(\rho-1)}$

  $\frac{V_H}{V_L} \geq 1 + (\rho - 1) N$

  $\frac{V_H}{V_L} \geq N \left(\frac{\rho-1}{\rho} \frac{M}{M-1} - 1 \right)$
- Mentoring costs must be sufficiently low
- Surplus of highly-skilled partners must be sufficiently high

- Problem and model assumptions
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Remuneration differentials with partnerships

- Partnerships are viable if the cost of mentoring associates is not too high and the differential between high-skilled and low-skilled associates is sufficiently high
- Associates accept low wages as the prospect of future income as a partner compensates them
- This leads to large income discrepancies within partnerships

Demise of partnerships

- The demands on partners have increased over time, more involvement in client work left less time for mentoring
- The size of partnerships had to increase as business expanded, making identifying suitable associates more difficult
- The costs of mentoring in terms of lost opportunities for business became too high and partnerships became unviable
- Low pay as associate makes joining partnerships less attractive as other investment banks offer higher salaries to attract highly-skilled associates

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

E-mail: mnsak@bath.ac.uk