# Venture Capital Valuation of Early Stage Companies

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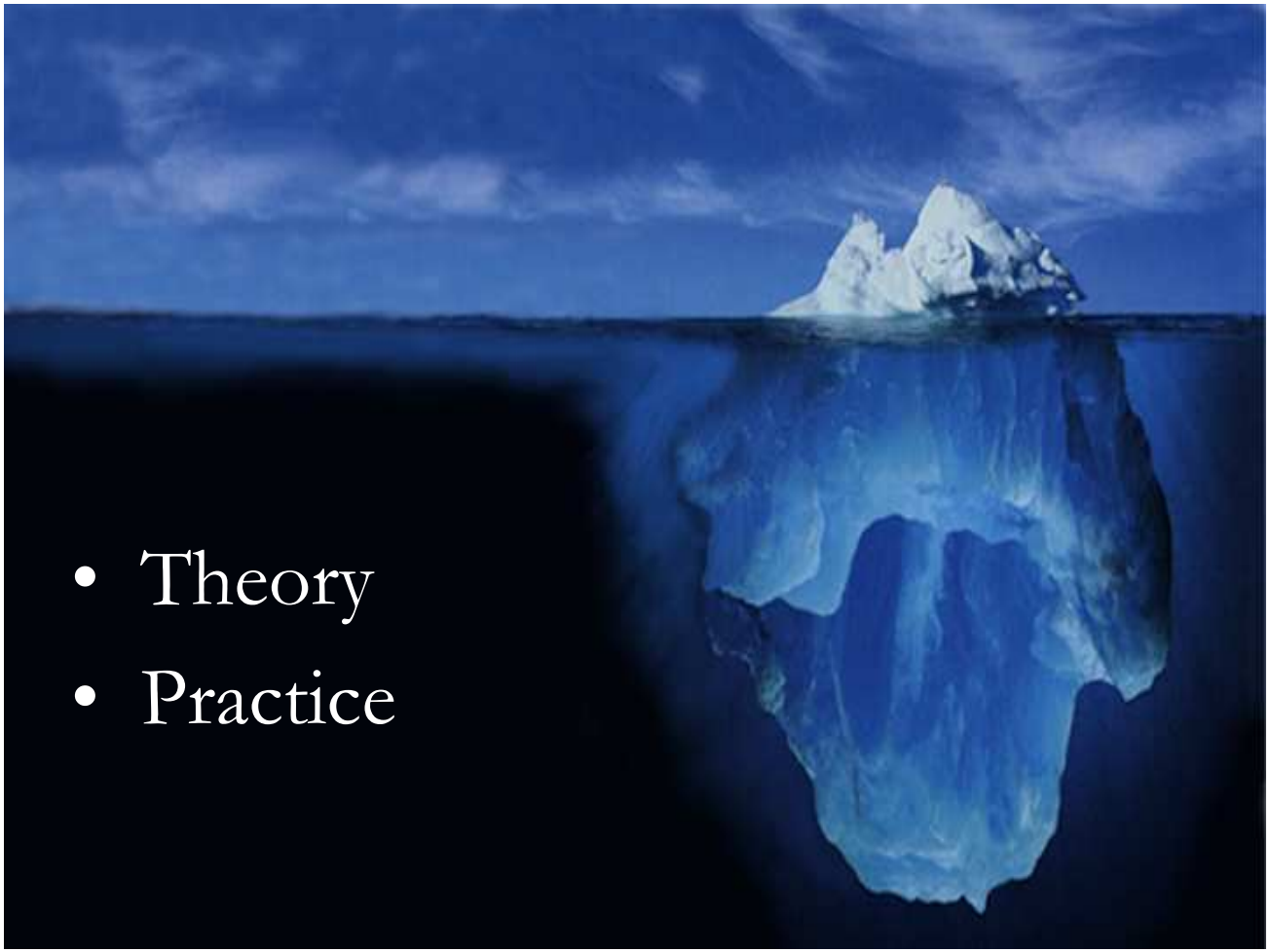
# Orchard often values the common stock of venture backed companies

- For tax purposes (IRS 409A) and financial reporting purposes (SFAS 123R)
- If the equity is worth $50 million and there are 3 layers of preferred, what is the common worth?








• Theory
• Practice

# Pre-money vs. Post-money

- A typical early-stage company
  - Small team
  - Promising technology
  - Good prospects but minimal revenues
  - No profits
- Assume
  - 1 million shares outstanding
  - Looking for an investment of $2.5 million
  - Priced at $5.00

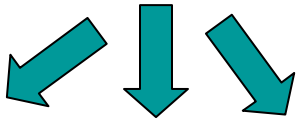
# Pre-money vs. Post-money

- Assume
  - 1,000 shares outstanding
  - Investment of $2,500
  - Priced at $5.00
- Calculations
  - $2,500 / $5.00 = 500 shares issued
  - 500 / (500 + 1,000) = 33% of equity
  - $5.00 x 1,000 = $5,000 pre-money value
  - $5.00 x 1,500 = $7,500 post-money value

In thousands, except per share amounts

# What determines the value?

Proceeds of $2,500



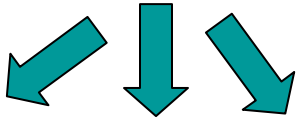
| | | | |
|---|---|---|---|
| Price | $2.50 | $5.00 | $10.00 |
| Shares issued | 1,000 | 500 | 250 |
| Equity interest | 50% | 33% | 20% |
| Shares after | 2,000 | 1,500 | 1,250 |
| Pre-money value | $2,500 | $5,000 | $10,000 |

# The "Venture Capital Method"

- Forecast a future value assuming success
  - Example: if the company hits its plan, it will be worth $60 million in 5 years based on a multiple of revenues
- Determine a required rate of return
- Figure out how much of the future value the investor needs to own in order to achieve the targeted return

# Valuation determines the investor's return

Future value of $60,000



| | | | |
|---|---|---|---|
| Price | $2.50 | $5.00 | $10.00 |
| Equity interest | 50% | 33% | 20% |
| FV of interest | $30,000 | $20,000 | $12,000 |
| Investment years | 5 | 5 | 5 |
| Investment | $2,500 | $2,500 | $2,500 |
| Compound return | 64% | 52% | 37% |

# Targeted rates of return

| Stage of development | Plummer | Scherlis & Sahlmann |
|---|---|---|
| Start up | 50-70% | 50-70% |
| First stage | 40-60% | 40-60% |
| Second stage | 35-50% | 30-50% |
| Bridge / IPO | 25-35% | 20-35% |

# Single stage investment

- Invest $2,500
- Required return 50%
- Invest for 5 years
- Target future value is $19,000
- Sell company for $60,000
- Target ownership is $19,000 / $60,000 = 32%
- Post money value is $2,500 / 32% = $7,900
- Pre money value is $7,900 - $2,500 = $5,400

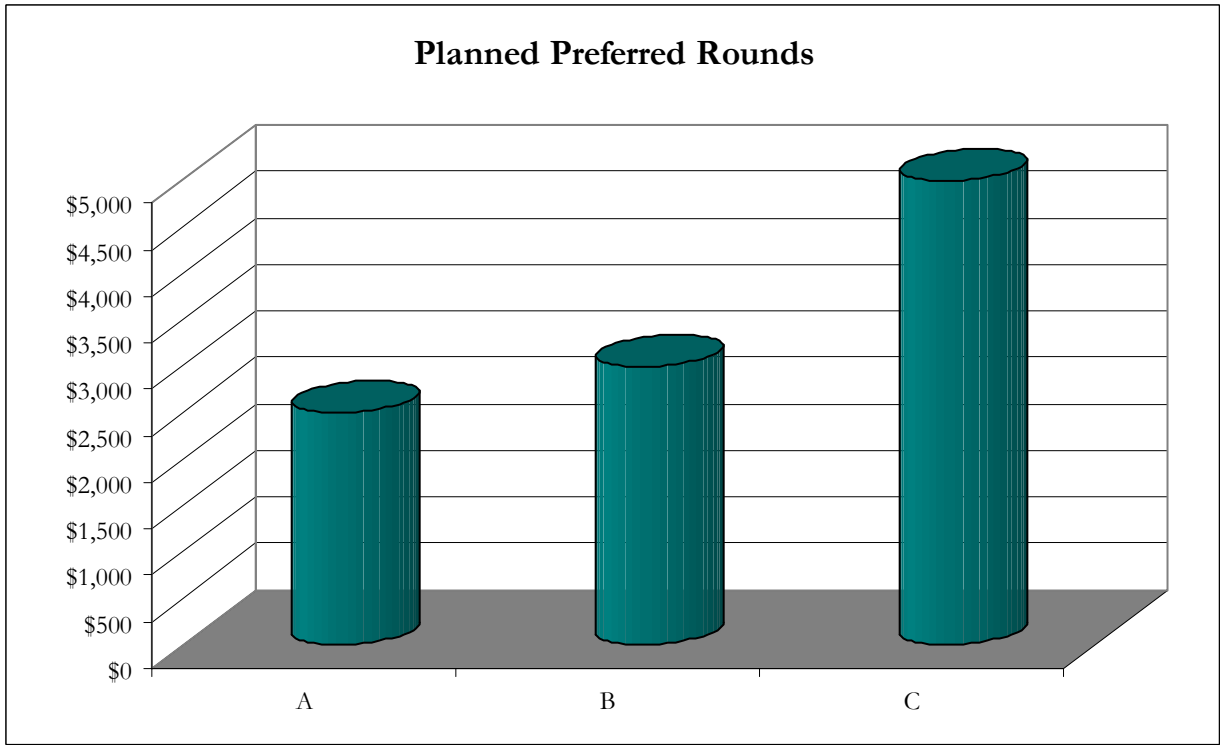
# Multi-stage investment

Assume

Series A
$2,500 in Year 1

Series B
$3,000 in Year 2

Series C
$5,000 in Year 3




If management achieves its plan, the company will have a value of $60,000 in 5 years

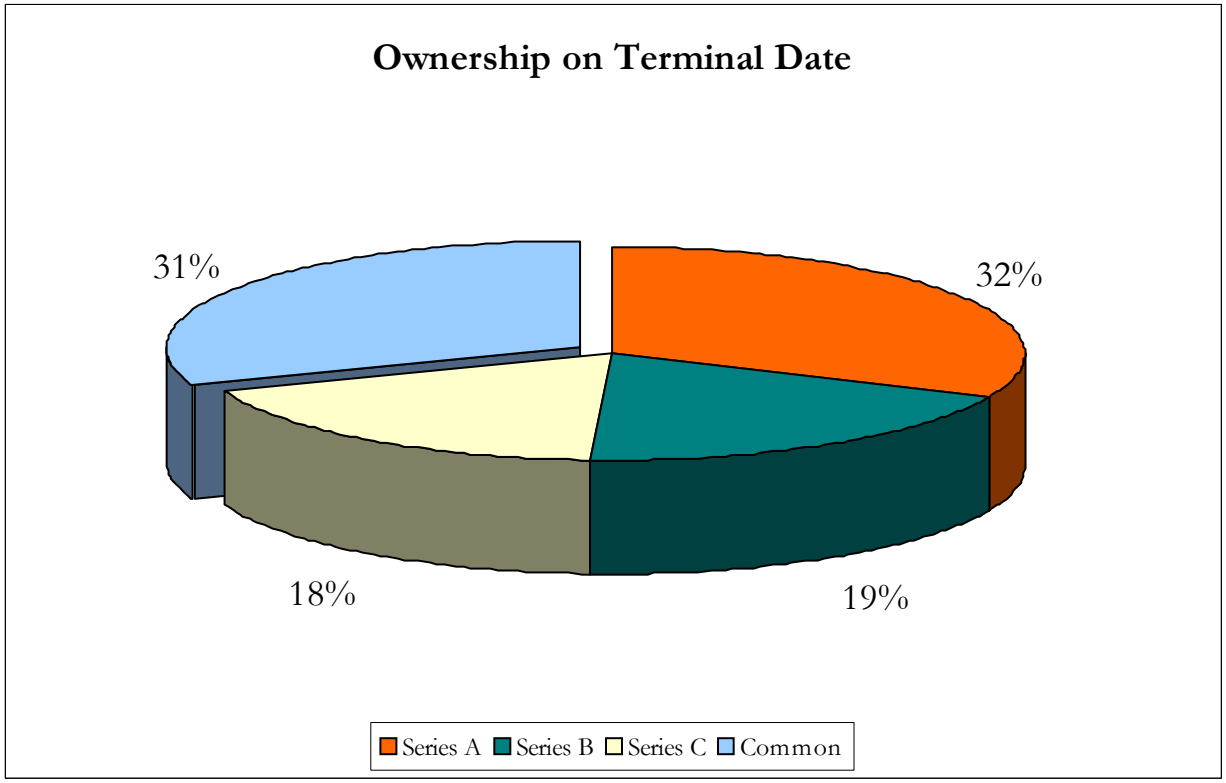
# We can estimate the future values needed to provide the required return

Series A 50%
PV $2,500
FV $19,000

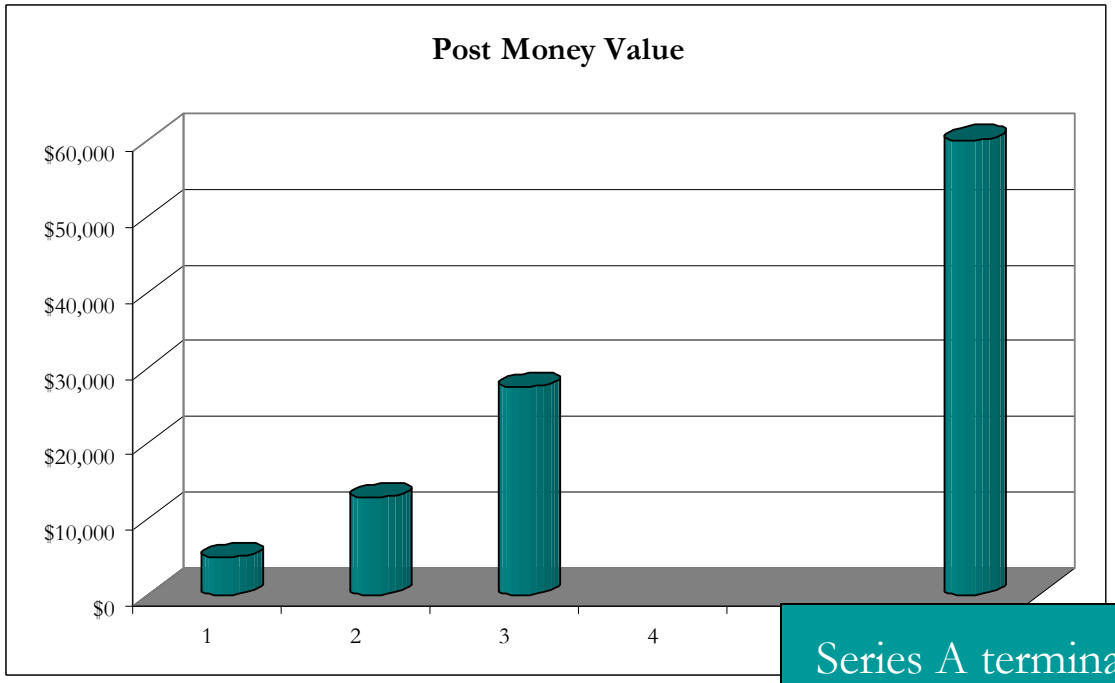
Series B 40%
PV $3,000
FV $11,500

Series C 30%
PV $5,000
FV of $11,000

# Future split assuming company is sold for $60,000



# Estimated value at each stage of financing




Series A terminal value is $19,000
$19,000 / $60,000 = 32%
Retention is 100% - 19% - 18% = 62%
Needs to acquire 32% / 62% = 52%
Investment = $2,500
Post-money = $2,500 / 52% = $4,800

# Theory vs. Practice

# How do VCs really determine value?

- Consider a number of qualitative factors: management, size of market, etc.
- Know the pricing of other deals
  - Median pre-money first round value in 2006:
    - $6.2 million
    - Up from $5.9 million in 2005
  - "Seed" round value $2.4 million
- Respond to competition and negotiation

Source is VentureOne

# "You can dictate the value if I can dictate the terms"

| | Q4 2006 | Q3 2006 | Q2 2006 | Q1 2006 |
|---|---|---|---|---|
| Multiple LP | 14% | 26% | 16% | 14% |
| 1-2X LP | 40% | 90% | 83% | 80% |
| 2-3X LP | 60% | 10% | 0% | 20% |
| > 3X LP | 0% | 0% | 17% | 0% |
| Participation | 73% | 64% | 71% | 65% |

Source is Fenwick & West

# Assume 1million shares outstanding & $2.5 million is raised at $5.00 per share

| First VC | Second VC |
|---|---|
| – 1X LP<br>– No participation | – 2X LP<br>– Participation |

- Pre-money value is $5 million in both cases
  - 1,000 shares x $5 = $5,000
  - 500 shares x $5 = $2,500
  - $5,000 + $2,500 = $7,500

# Assume business is sold for $10,000

| First VC | Second VC |
| --- | --- |
| – LP is $2,500<br>– Conversion value is $10,000 x 33% = $3,333<br>– Proceeds to remaining common shareholders $10,000 - $3,333 = $6,667 | – LP is $5,000<br>– Proceeds after payout of LP $10,000 - $5,000 = $5,000<br>– Participation is $5,000 x 33% = $1,667<br>– Proceeds to remaining common shareholders $5,000 - $1,667 = $3,333 |

# Conclusions

- The venture capital method works for common shareholders as well as preferred
  - What do you expect as future value?
  - What sort of return do you require?
- Creating competition among venture investors may be to the company's benefit
- Understand the terms

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