HEC PARIS

Workshop in preparation of the Commission's review of the State aid regime to support SME access to risk capital

Institutionalized Equity Financing of Start-ups and SME: Background and Research Findings

Brussels - Dec 11, 2012

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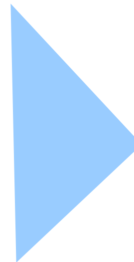
Slides in part drawn from a joint HEC lecture with O. Litzka from Edmond de Rothschild Investment Partners

Bankers vs VCs

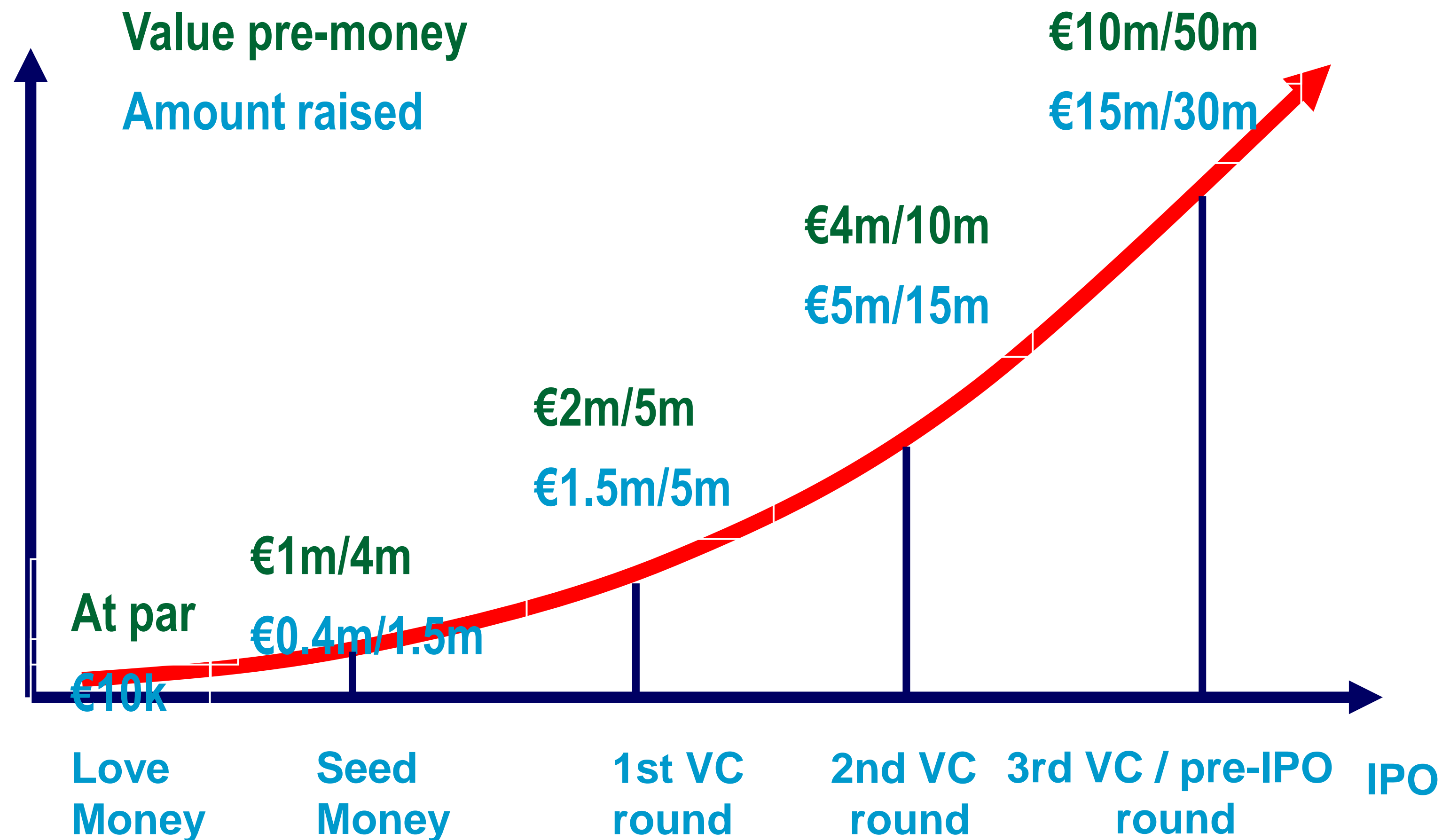
Banker		*Venture Capitalist*
➢ Works with other clients' money ➢ Statistical evaluation of the risks ➢ Limit losses to 1% of ongoing loans to SME ➢ About 100 companies by executive ➢ Entreprise = Client		➢ Funds invested by « qualifed investors » ➢ Cherry picking of companies, risk/return evaluation ➢ Generate >25% IRR on investment ➢ Less than 10 companies by investor ➢ Entreprise = Partner

VCs and PE Investors are not Bankers !

Interaction VC – Company Management

- VCs finance the creation of enterprises, not the creation of entrepreneurs
- The "entrepreneur" of a start up is the experienced board, and the CEO/founder
- There is no shareholding control issue, just a split of future capital gain
- Management/Founders will become minorities, but each single VC is as well

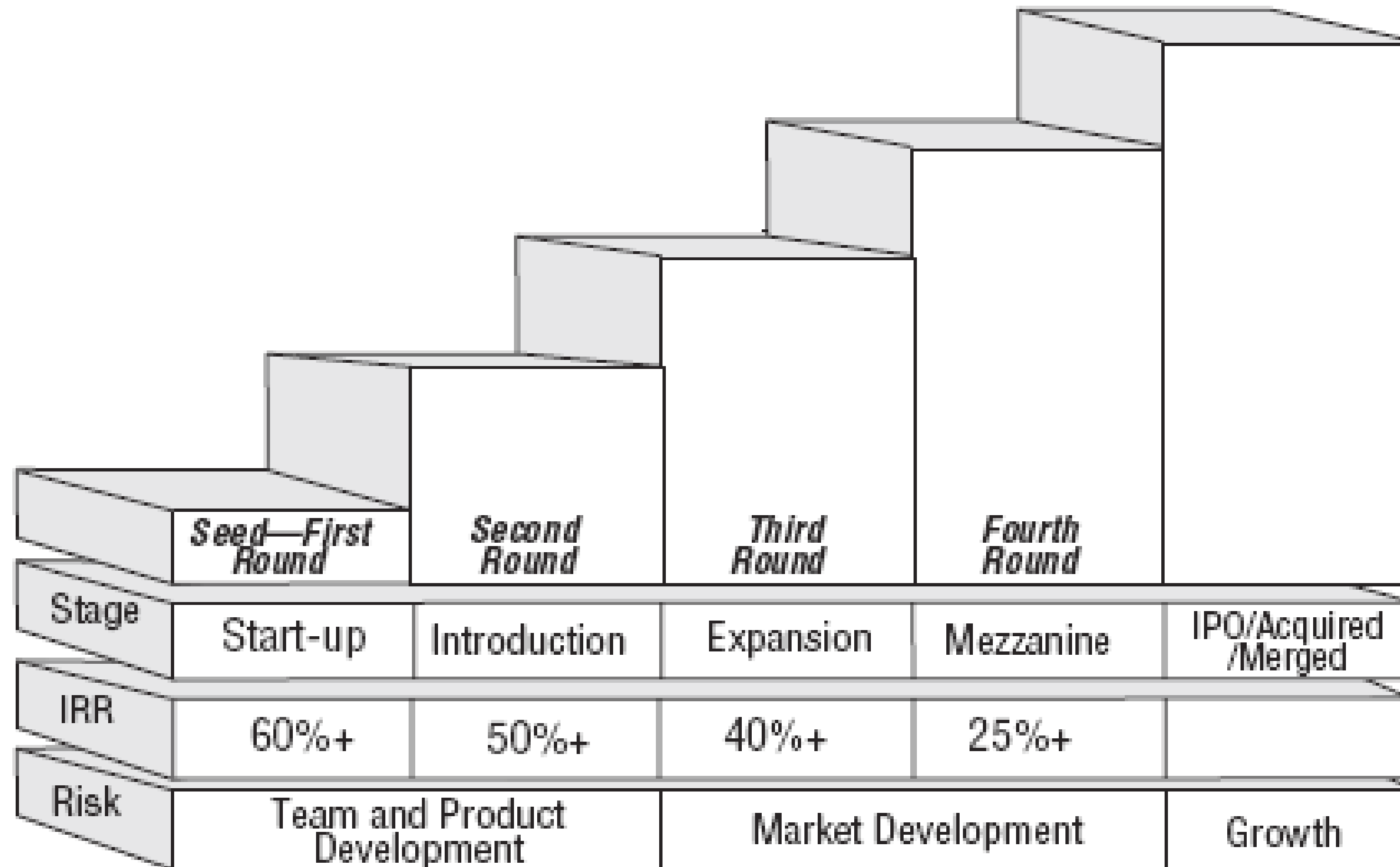
Making money in Start ups



Value growth drivers

- Milestones achievement since last investment round
- Business model proven / improved
- New recruits for board and management team
- Customers and revenues
- Partnerships – evidence of scalability
- Competition profile ("first mover", technological breakthrough, …)
- Quality of and competition between VC
- IPR
- Credible plan to scale
  - Route, Rate, Resources
  - Allocation of marginal resources
- Clear value play – leadership of what?

Valuation



Venture Capital Financing has to be tailored to stages in a firm's development

Source: Josh Lerner

Company Valuation by Stage: Rules of Thumb

Financing	Company Stage	Data	Risk/ Uncertainty	Value* (MM)
Seed	Incorporation; early development	Soft data; value proposition, etc.	Extremely high	$1+
Series A	Development	Validation, time to market	Very high	$3+
Series B	Shipping product	Preliminary revenue	High	$7.5+
Series C+	Shipping product	Predictive revenue	Moderate	$10+
Later-stage/ mezzanine	Shipping product, profitable	Hard data; EBITDA, net income	Lower	$20–50+

Source: Josh Lerner

Business Angel vs. Venture Capital Financing

	Angels	VCs
Funding amounts	$25,000 to $1.5 million	$500,000 and above
Motivation to invest	Not just return driven, strong emotional component (bragging rights, psychological benefits of coaching, rush from being involved in fast-paced start-ups)	Mostly return driven with adjustments for relationships with other VCs and reputation among entrepreneurs
Accessibility	Prefer anonymity, reachable via referrals or through angel groups	Highly visible, usually will only look at business plans referred by their network of contacts (attorneys, etc.)
Geographical focus	Regional, within four hours' drive time	Regional, national, or international, depending on the firm
Key reasons to invest	Personal chemistry with entrepreneur, detailed market analysis, sustainable competitive advantages	Nearly developed product, operating history, strong and experienced team, sustainable competitive advantages
Term sheet issuance	Relatively fast (one day to three weeks), terms are somewhat negotiable (more than with VCs)	Can be fast, but usually is at a moderate pace (several weeks); terms fairly standard and not very negotiable

Angel Financing vs. Venture Capital Funds

	Angels	VCs
Investment vehicle	Common or preferred stock, occasionally convertible debt (debt convertible to equity shares)	Preferred stock (convertible to common)
Equity percentage	10%–30%	20% or more
Typical postmoney valuation of start-ups	$250,000 to $10 million	$5 million and above
Due diligence	Relatively fast and light	Relatively slow and methodical
Funding process	Lump sum or milestone	Lump sum or milestone
Long-term value added	Operational experience, common sense advice; specific industry expertise	Experience in managing growth, deep pockets, networks of additional sources of capital, Rolodex, experience in managing IPOs and sale exits

Angel Financing vs. Venture Capital Funds

	Angels	VCs
Reaction to bad news	Roll up the sleeves and help solve the problem, open up Rolodex	Intense communication and coaching; open up Rolodex; help structure joint ventures, new financing rounds, or mergers; fire management
Target exit time	Five to seven years	Three to five years
Target IRR returns	15% to 25%	20% to 40%

Source:

Note on Angel Investing, Professor Fred Wainwright, Tuck Business School

VC's Business Model

- A typical VC fund:
  - Invests in 10 to 15 companies.
  - Expects one company to "return the fund" or generate enough gains to repay the entire amount of the fund back to the investors.
  - Expects one to four companies to fail.
  - Expects the rest of the companies to have minimal to reasonable returns.
  - Has a life of 10 years.
  - Leverages expertise in certain areas by investing in a portfolio of companies in an industry.
  - Invests in stages, based on milestone completion. Management capable of a sustained intense effort.

- Attracting VC funding requires substantial growth potential of the start-up, which is often driven by new technologies

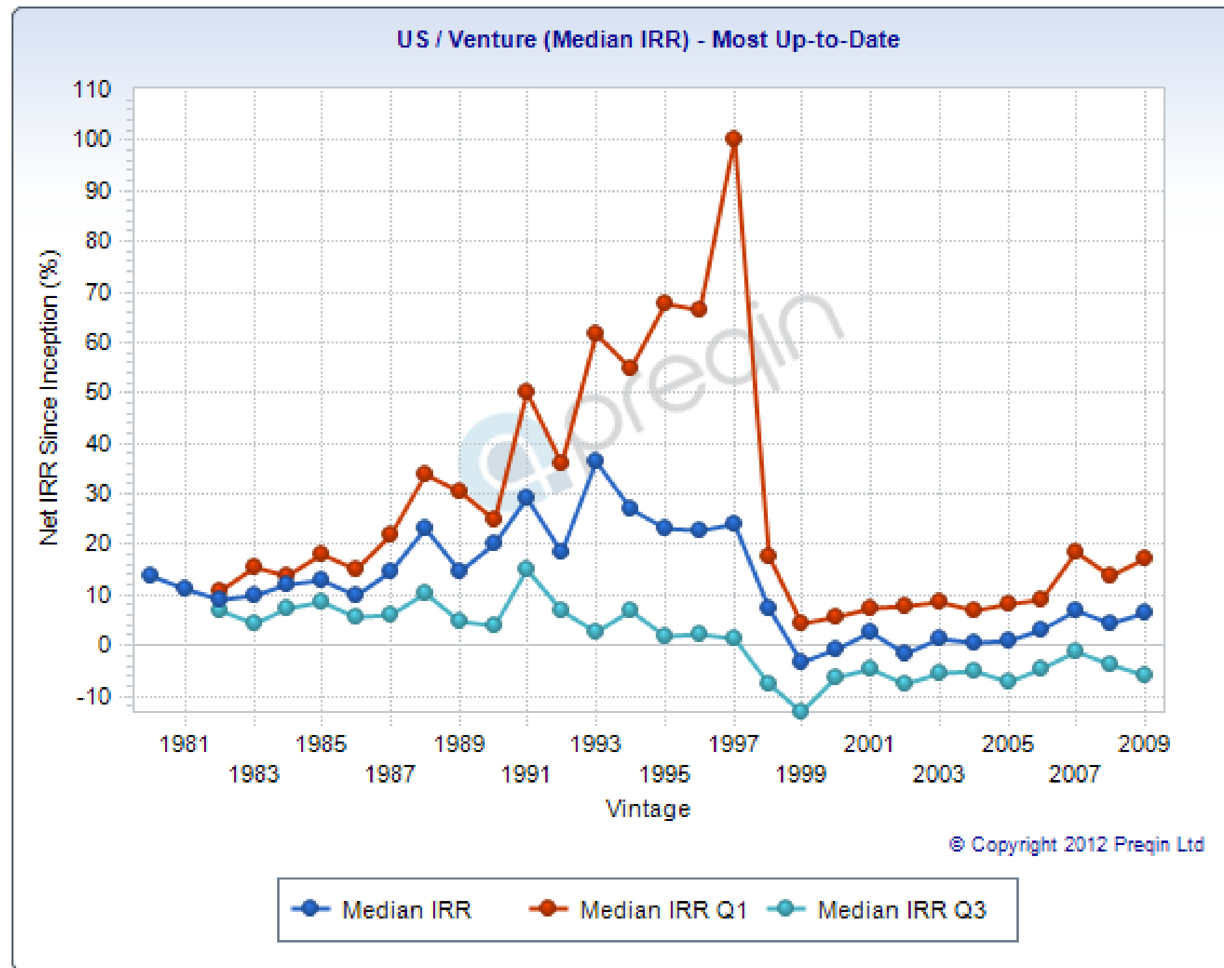
Perception vs Reality

- A VC finances only 1 % of the Business Plans received.
- Bankruptcies of the high tech companies that succeed in getting venture capital still occur quite often.
- Fewer than 10 percent of the funded start-up go public.
- Fewer than 10 percent make a very high return
- European VC Reality today: VC aim to achieve several 3x to 4x investments in their portfolio

Expected Returns – the theory

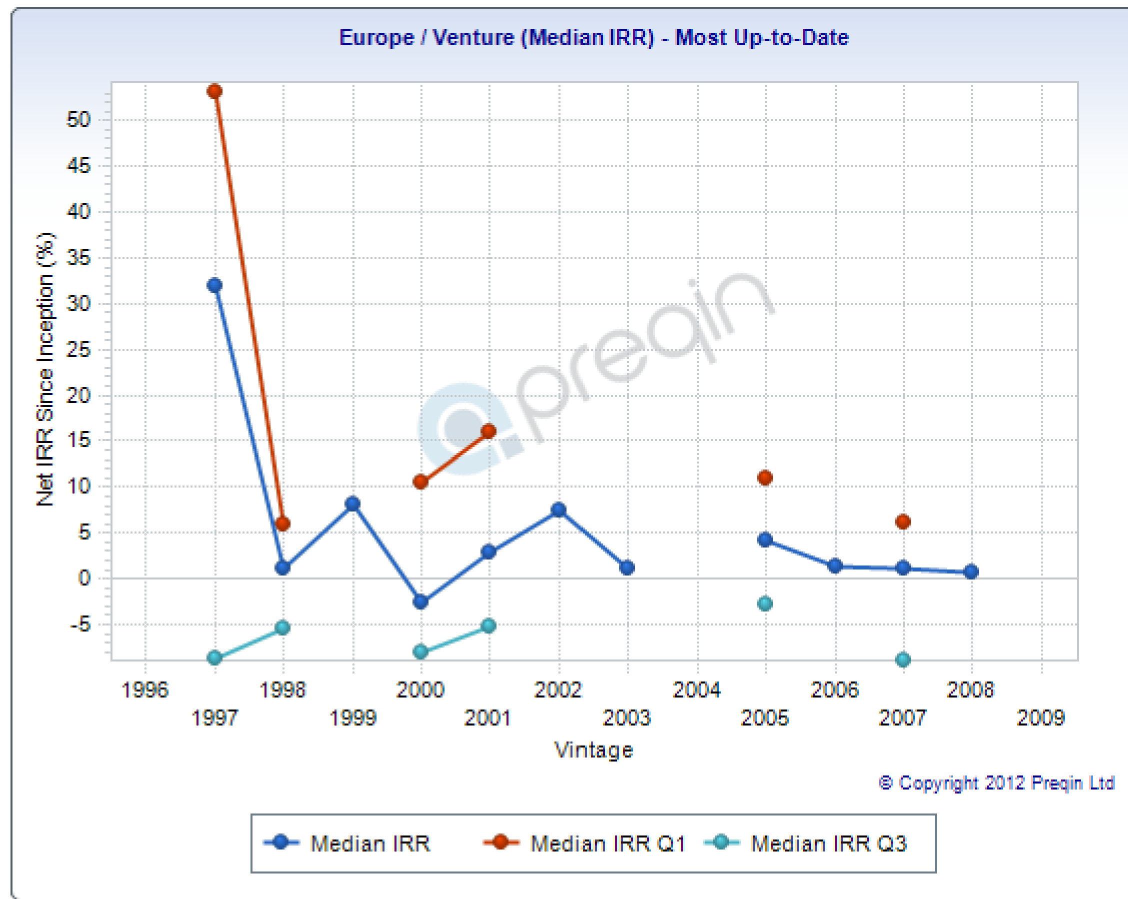
- Technology
  - Seed : > 10x minimum
  - 1st VC round : 10 x
  - 2nd VC round : 5 x
  - 3rd VC round or pre-IPO : 2 to 3x
- Growth capital & buyout
  - IRR: >20%
  - 2.5x in 3 to 4 years

Returns – the Reality



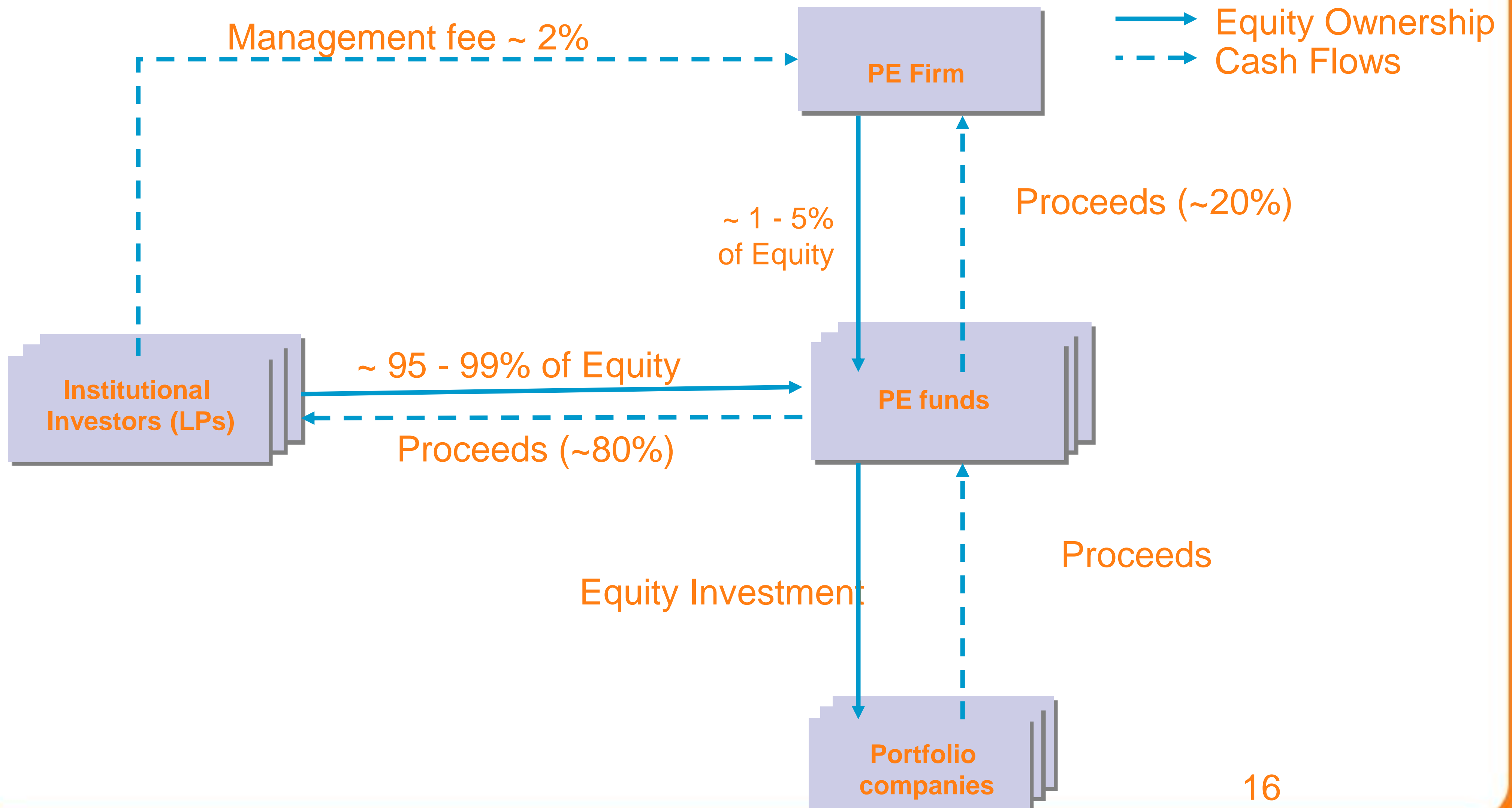
Source: Preqin, Dec 2012

Returns – the Reality



Source: Preqin, Dec 2012

Reminder: PE Governance Structure



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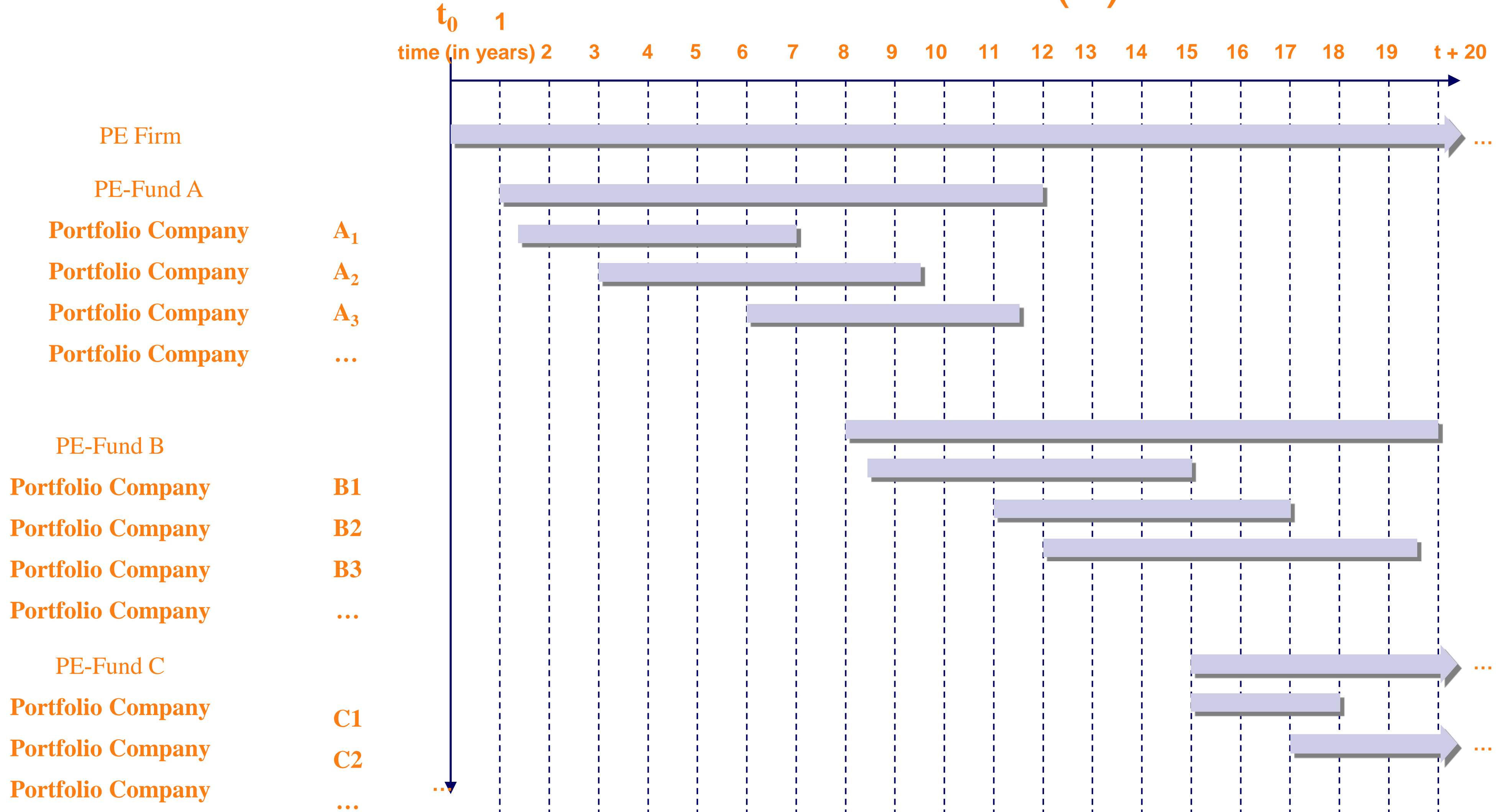
Reminder: PE Governance Structure (2)



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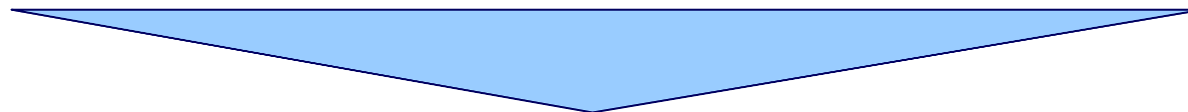
Beyond VC: A closer look at expansion capital and build-up PE investments - Stereotypes about PE-LBO Investments

According to common stereotypes, PE-LBO investments aim to create value based on

- Heavy use of financial leverage
- Rigorous restructuring with layoffs and divestitures of non-core assets
- Short term strategies at the expense of long-term prospects
- During PE Ownership, the target companies are believed to become:
- Over-leveraged
- Under-funded
- Scaled-down



These stereotypes not supported by empirical evidence for most PE categories, but in particular they are not in line with the specific sub-categories of expansion capital and buy-and-build PE investments

Beyond VC: A closer look at expansion capital and build-up PE investments

- Expansion Capital increasingly replaces bank loans for PME with growth projects but too little collateral to qualify for traditional bank lending
- Buy-and-Build buyouts are different from other buyouts in that they aim to create value based on the selective addition of strategically and operationally suitable businesses to an initial ‚platform' acquisition.
- Compared to ‚mainstream' buyouts, expansion capital and build-up buyouts tend to be
  - Less leveraged
  - Less dependent on attractive market environment for increased valuations (‚multiple expansion' vs. ‚multiple riding')
  - Value creating based on synergistic rather then standalone logic
  - More long-term focused

A closer look at build-up PE investments

- Buy-and-Build buyouts are similar to ‘strategic M&A’ activity, undertaken by corporations to optimize corporate strategy.
- Buy-and-Build buyouts are thereby creating larger entities around a vertical, horizontal or technology-based strategic logic.
- Buy-and-Build buyouts mostly take place in the small-cap and mid-market size segment of PE activity: We identified 213 European Buy-and-Build buyouts for which Enterprise-value information was available and found 80% of the deals to be between EUR 15M and EUR 1B in Enterprise Value.

Expansion Capital and Buy-and-build PE activity contribute to the creation of larger businesses

As buy-and-build PE investments typically combine several small businesses to create mid-sized businesses, they alter the firm-size distribution in an economy

A review of the academic literature on "Firm Size Effects" provides theoretical arguments and empirical evidence that larger businesses are characterized by

- Greater Longevity
- Better Resistance to economic crisis
- Higher levels of productivity, R&D Efficiency, Cost Efficiency and Export Activity

Research Finding: Comparing Buy-and-Build Private Equity with strategic M&A Activity

If the consolidation of small SME to larger SME through M&A activity is indeed beneficial for the French economy, the question becomes whether the PE governance structure is better suited than other forms of governance to perform such M&A-based consolidation.

An extensive amount of academic research from strategy, economics, finance and accounting alike point to the fact that

1. In standard M&A, acquirers earn low/negative average abnormal returns and
2. Over 50 % of all M&A turn out to be failures

HEC Research: Empirical Analysis of the Track Record of buy-and-build PE strategies

To compare the track record ot traditional M&A to that of buy-and-build PE strategies, we compose a unique and comprehensive database of PE investments, both traditional PE and buy-and-build PE strategies

Gathering/Codification

- Analsyis of 1905 realized PE investments available at the HEC Buyout Database (confidential data provided by multiple LPs over past 10 years)
- Detailed research in press archives, online resources, M&A databases to identify possible follow-on acquisitions for each deal
- Yield of Research:
  - **504 deals clearly identified as ACQUISITIVE (build-ups)**

Empirical Analysis of the Track Record of buy-and-build PE strategies

Data Analysis: Loss Ratios of build-up PE Investments

Loss rate of build-up PE Investments is lower than for overall PE deals:
Out of 504 Build-up M&A deals, 114 return less than 1x in capital (22,6%), compared to 373 out of the organic sample of 1401 (26,6%)

Write-Off rate of build-up PE Investments is lower than for overall PE deals:
Out of 504 Build-up M&A deals, 31 return 0x capital (6,2%) , compared to 98 out of the organic sample of 1401 (7,0%)

Comparing Buy-and-Build Private Equity with strategic M&A Activity

- The empirical analysis suggests ***that Buy-and-Build Private Equity is better able to mitigate the inherent risks in acquisition strategies***.
- In particular, we observe that the ***share of loss-making transactions and total write-offs among build-ups is lower*** than for other types of PE deals, which indicates that acquisition programs do not increase the risk of PE investments
- This is in contrast with the widely supported finding of ***>50% failure rates of acquisitions initiated by strategic/industrial acquirers***

Consequently, private equity acquirers seem to be better positioned to efficiently conduct acquisitive strategies and drive the consolidation of businesses