SIGNAL LAKE

Startup Financial Engineering Tutorial

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TECH TOP 40 & INNOVATION PIPELINE AWARDS

The Catalyst for Innovation & Growth

Outline

- Public Markets vs Private Markets
- Valuation Methodologies
- Staging Financing in Tranches
- Equity vs Debt
- Preferred Stock vs Common Stock

Public vs Private Markets

Characteristic	Public Market	Private Market
Number of buyers and sellers	Millions	Tens
Information available	Large amount of publicly available information	Relatively small amount of privately held information
Investor characteristics	Small number of very sophisticated investors; large number of relatively unsophisticated investors	Small number of very sophisticated investors
Investment Valuation	Highly efficient and systematic	Highly inefficient and subjective

Private Equity/Debt Markets by Stage of Investment

- Friends and family/angel investors
- Venture capital
- Expansion capital
- Working capital
- Mezzanine
- Buyout
- Secondary markets
- Cross over funds

Historical Prolog—Asset Classes

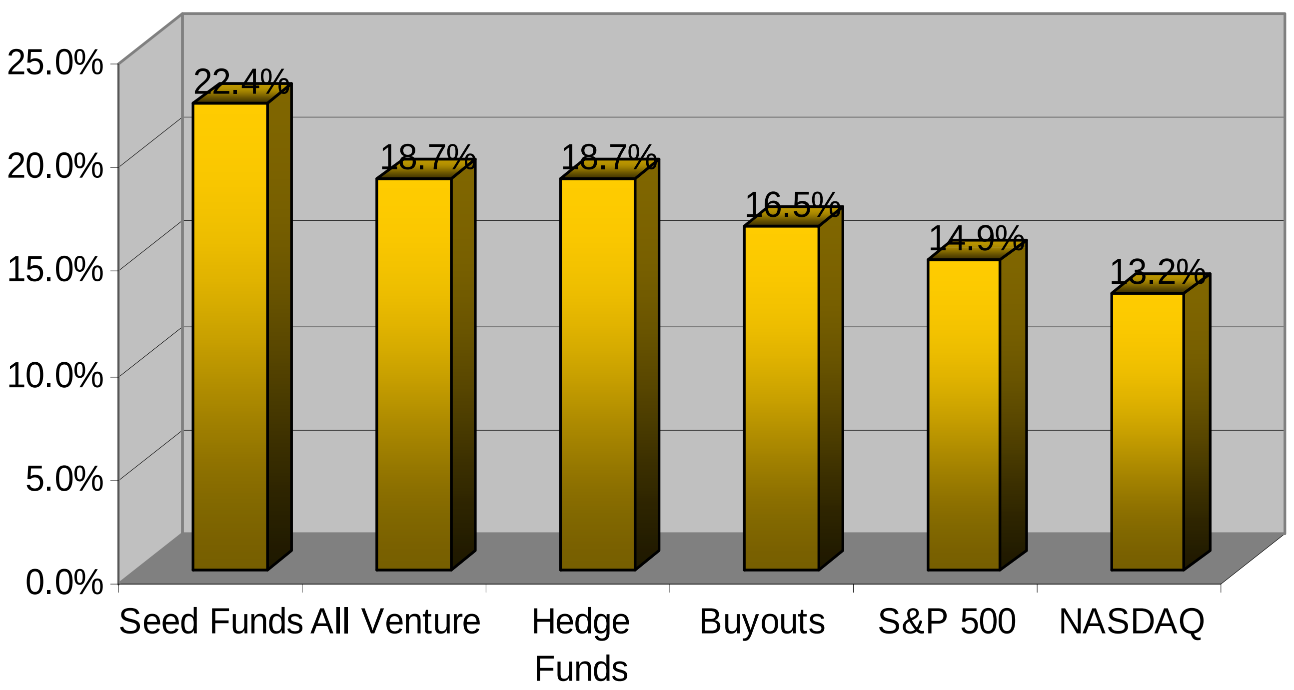
- Markowitz (1952)
  - Diversify across asset classes
  - Achieve Lower Risk but Lower Reward
- Illustrative Asset Classes
  - Public equities
  - Bonds
  - Foreign exchange currencies
  - Real estate
  - Commodities
  - Energy
  - Private equities
  - Derived Asset Classes (Derivatives)

Historical Prolog Continued

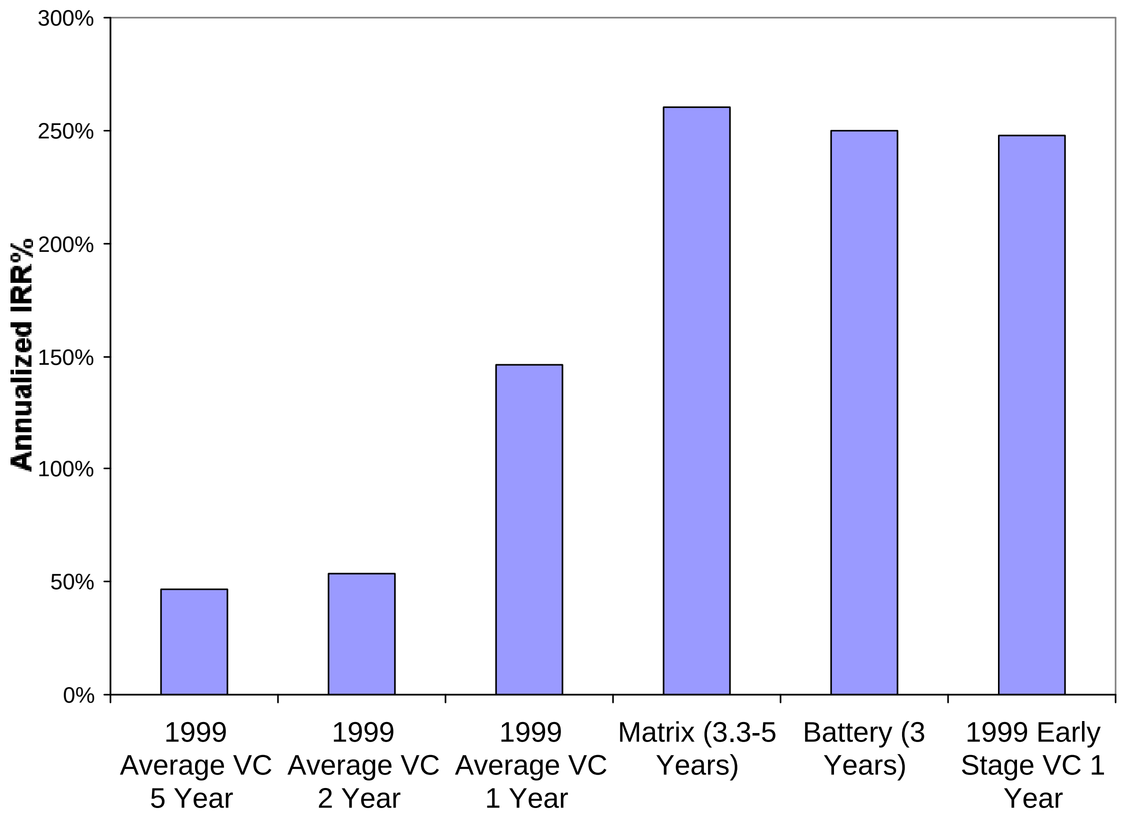
- 1965-2000
  - Angel investors—returns unknown
  - Early stage venture capital—60%+ IRR
  - S&P 500-15% CAGR
  - All other private equity returns in between venture and S&P 500
  - Roughly 50 out of 700+ early stage funds returned 50%+ of returns for all funds: 1965-1995
  - Explosion to 1500 venture funds in 1995-200
- 2000-2008
  - Angel investors-returns unknown
  - Early stage venture capital-0% IRR
  - S&P 500-15% CAGR
  - Late stage private equity/buyouts 50%+ IRR

Alternative Investment Choices

Historical 20 year returns for Other Investments
Source: Venture Economics HFRI Equity Hedge index



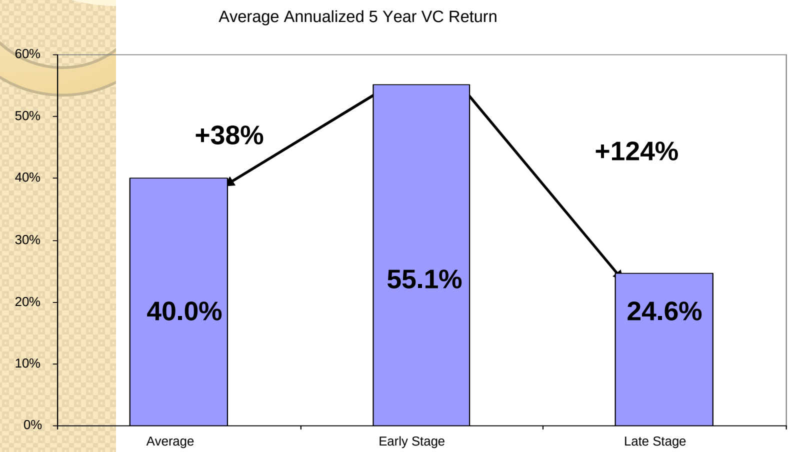
Benchmark VC Returns

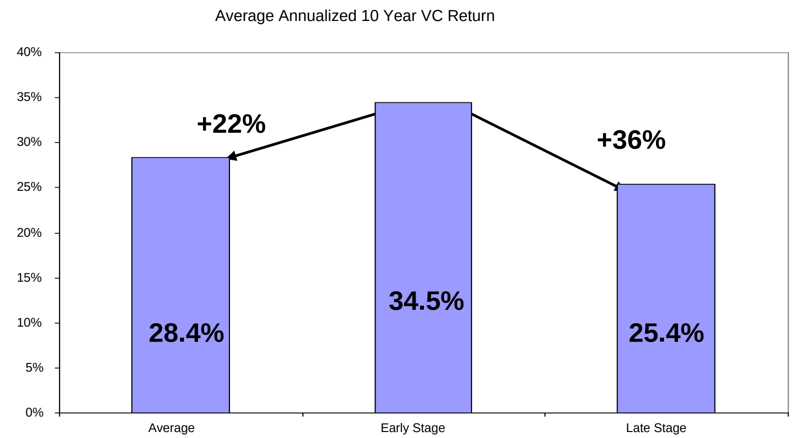


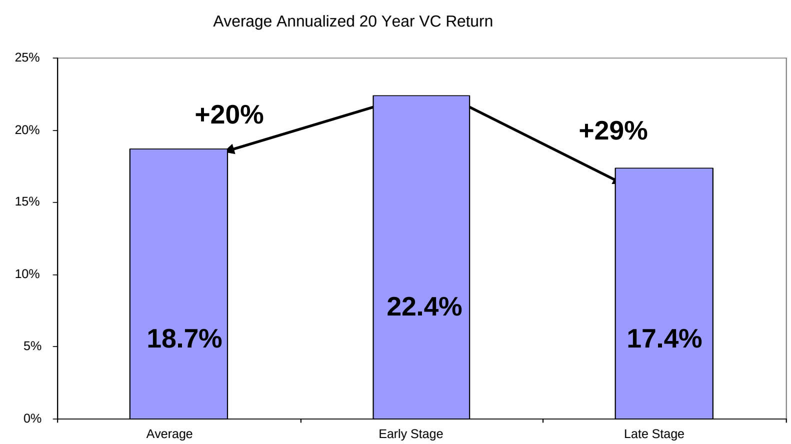
Source: Venture Economics,

Boston Globe, Signal Lake Analysis

Long Return Superior Returns for Early Stage Funds

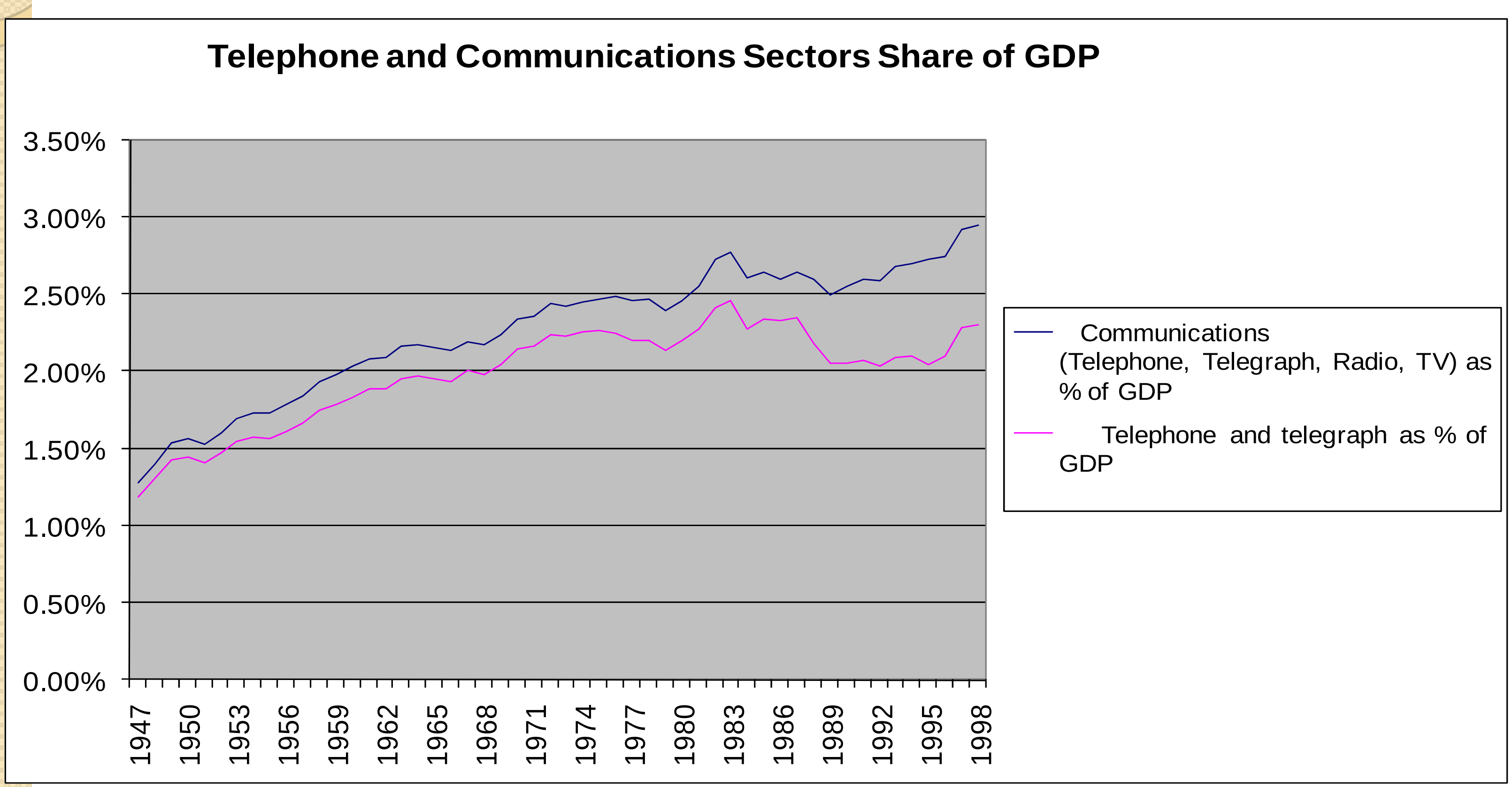




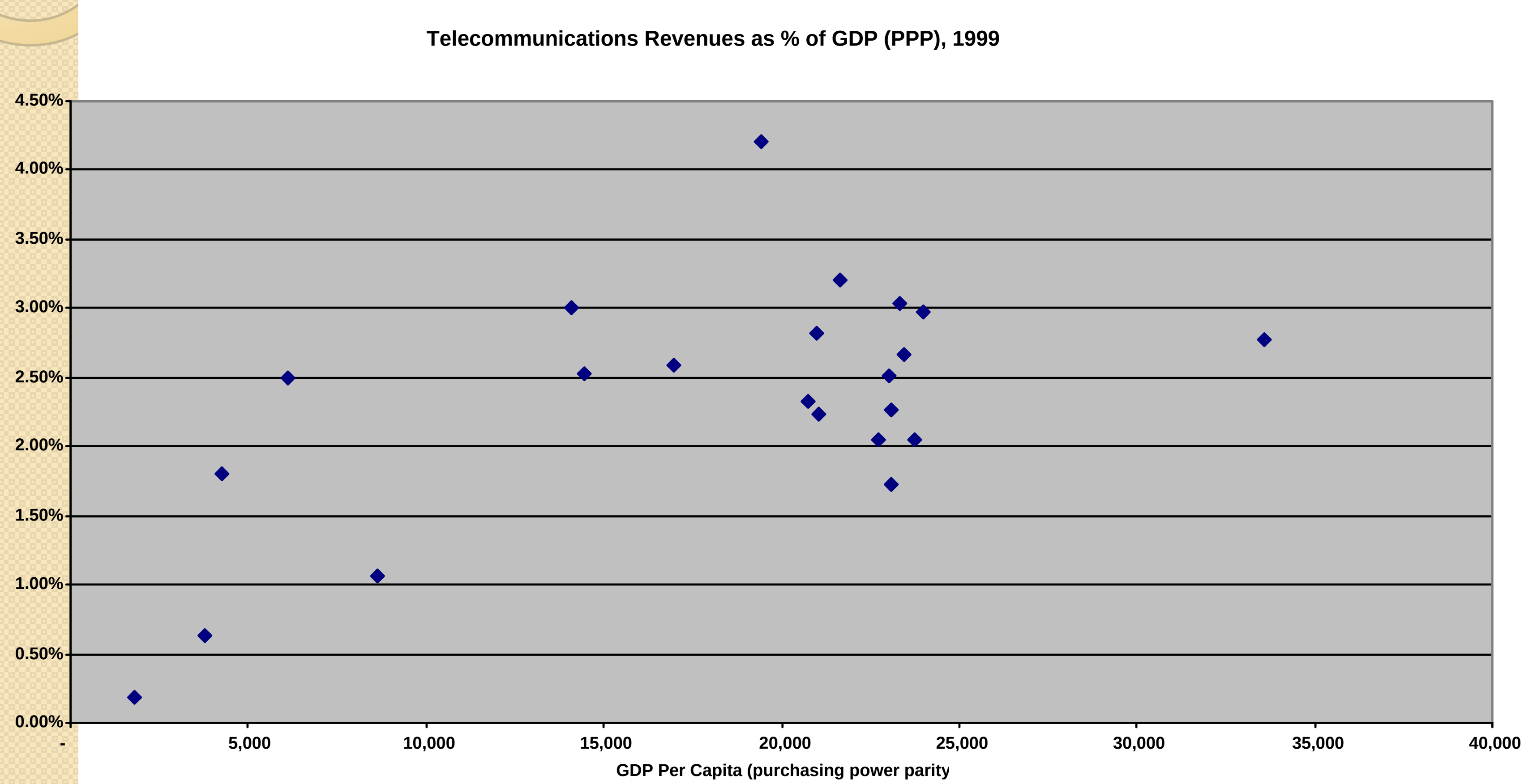


source: <u>Venture Economics 10/16/01</u>

Share of GDP:
Rising over the long term



Fueled By Increasing GDP Per Capita



Telecom As Asset Class

- **Demand for telecom grows at 8.5%**
  - Not bad, but not mid-double digits
  - Of course, new areas will grow much faster
- **Demand for telecom capital equipment grows at 14.8%**
  - Overall, this is much higher than for most industries
  - However, 15% growth versus 50% growth is consistent with observed 90% public equity decline
  - Next-generation areas will grow much faster (50%)
- **Internet based services growing at 25%+**
  - Advertising based revenue models—free is the right price point
  - Proprietary content priced on perceived value
- **If so, there's still opportunity for superior returns**

Valuation Methodologies

- Public and private market norms
  - Any thing out of norm is a flag to a potential investor
- Discounted cash flows/net present value
  - Cash flows in each year, discounted to present
  - Terminal value: 90% of total net present value
- Ratios
  - Market cap/revenue: 2X-10X
  - Market cap/EBITDA: 3X-20X
- Private market valuation norms
- Public market surrogates

Staged Financing

- Key metric
  - Total capital required to reach positive cash flow, on a risk adjusted basis
  - Positive cash flow businesses can raise money on far more favorable terms than negative cash flow businesses!
- Seed or friends/family
  - Angel/seed funding and/or venture capital
- Series A: launch product/service
  - Smallest amount of monies
  - Lowest price/share-> greatest dilution
- Series B
  - expansion capital: staff for marketing, sales, support
- Series C
  - Working capital: components, infrastructure, staffing
- Series D
  - Mezzanine financing: within one year of exit, pump up balance sheet
- Exit
  - Merger/acquisition
  - Initial Public Offering
  - Shut down/bankruptcy

Equity vs Debt

- Debt: principal and interest be repaid
  - Requires an income stream to repay!
  - Bridges to a subsequent financing event
  - Interest/dividend on preferred stock
  - Typically senior to equity: control!
- Equity is sunk cost
  - Control
  - Fiduciary oversight and responsibility

Preferred vs Common Equity

- Preferred Equity: Typical Preferences
  - Liquidation preference: 1X, 2X et al, paid off before common stock
  - Dividends
  - Participating preferred: converts to common and then participates in returns
  - Conversion to common
- Common Equity
  - Chance to be independently wealthy