

A BETTER TECHNIQUE FOR DISCIPLINED VENTURE INVESTMENT DECISIONS

FORECASTED INVESTMENT RETURNS

An investment decision in venture stage companies should not immediately follow the disclosure of the entrepreneur’s “win-win” proposal of a 5 to 20 times return on investment—regardless of whether his business model and cash flow projections appear reasonable or even believable. Assuming the industry, the company, the cash flows, and the deal structure are attractive, additional thought and comparative economics are necessary, especially for a minority investor that has no influence over the operations of the business or the power to force liquidity of the investment. Business valuation, which is grounded in fundamental corporate finance theory, incorporates discipline, critical thinking, and empirical data to make informed investment decisions that coincide with specific investor parameters and return requirements.

The potential return on investment from early-stage companies is a major selling point and should be emphasized by entrepreneurs and venture capital fund investors. Assuming every aspect of the business plan has been thoroughly addressed, the investment decision should not be made without isolating the potential investment returns and alternatives. Capital budgeting (i.e. the process for quantitatively determining how and which projects receive investment capital) is a technique of corporate finance and business valuation that can assist in clarifying the comparative economics of alternative investments. Specifically, it assumes that an investor has finite capital to invest and must choose between investment projects or deal opportunities, not unlike

investing in early-stage companies. A prudent investor would progress beyond the quantification of an overall investment multiple to measuring the impacts of investment risk, such as the uncertainty of cash flows, holding period, and investment alternatives.

NPV IS BETTER THAN THE MULTIPLE OF INVESTED CAPITAL MODEL

Interpreting expected cash flows from an overall investment multiple to comparable investment returns, and being mindful of risk, holding period, and investment alternatives, are the central factors of capital budgeting. One of the most useful concepts to measure cash flows and returns is a net present value (“NPV”) calculation. For example, assume you have the choice to invest in two comparable companies in a targeted industry and stage of development, as described below and depicted in Table I:

(1) Company A: with (1) an initial \$100,000 investment, (2) no cash distributions in years one and two, and (3) a liquidity event of three times invested capital in year three;

(2) Company B: with (1) an initial \$100,000 investment, (2) no cash distributions in years one through five, and (3) a liquidity event of five times invested capital in year six.

An NPV analysis promotes acceptance of any investment where the NPV is greater than zero (i.e., the net present value of the future cash flows, discounted at the investor’s required rate of return (“RRR”), exceeds the initial capital outlay). However, your investment capital limits you to invest in only one of the two companies. Consider Table 1. Identify the more attractive investment from a financial point of

view in Table I, assuming a 40.0% RRR on venture investments.

TABLE I: COMPARATIVE NPV ANALYSIS

	Future Cash Flow Company A	Future Cash Flow Company B
Year 0	(\$100,000)	(\$100,000)
Year 1	-	-
Year 2	-	-
Year 3	\$300,000 ¹	-
Year 4		-
Year 5		-
Year 6		\$500,000 ²
NPV	\$9,329	(\$33,595)

¹ $(\$100,000) + \$109,329 = \$9,329$; $\$9,329 = \$300,000 / (1+40\%)^3$

² $(\$100,000) + \$66,405 = (\$33,595)$; $\$66,405 = \$500,000 / (1+40\%)^6$

Based on the forecasted liquidity price and holding period (three years versus six years), Company A, even with a significantly lower multiple on invested capital, is the better investment.

WHAT IS THE RATE OF RETURN OF MY INVESTMENT?

Another useful capital budgeting tool that can be applied to alternative investment analysis is the concept of internal rate of return (“IRR”). IRR calculates the annual rate of return that the investment yields. Said differently, the discount rate that equates the present value of the investment’s future cash flows with the projects initial capital outlay—making the NPV equal to zero. Like the NPV, the computed IRR is influenced by the investment amount, the projected multiple of investment, and the holding period. *The basic premise of IRR analysis is to accept investments where the IRR is greater than an investor’s required rate of return (which is based on the investor’s opportunity cost of capital*

and often referred to as a “hurdle rate”). Using the example in Table I, the RRR is assumed to be 40.0% for investments of similar risk to Company A and Company B (i.e., early-stage venture backed companies). Table II summarizes the calculated IRR based on the capital investment and projected cash flows of Company A and Company B.

TABLE II: INTERNAL RATE OF RETURN

	Cash Flow Company A	Cash Flow Company B
Year 0	(\$100,000)	(\$100,000)
Year 1	-	-
Year 2	-	-
Year 3	\$300,000	-
Year 4	-	-
Year 5	-	-
Year 6	-	\$500,000
IRR	44.2%	30.8%
Relative to Required Rate of Return	> 40.0%	< 40.0%

The 44.2% IRR of Company A exceeds the 40.0% RRR, has a positive NPV, and should be selected. The 30.8% IRR in Company B is below the investor’s 40% RRR, and provides a negative NPV (Table I). Company B should be rejected.

WHAT IS THE IRR OF MY 10 TO 20 “BAGGER”?

For many early-stage investors, potential return on investment should be substantially greater than three to five times invested capital in three to six years, as discussed earlier. For example, suppose my return requirement for an early-stage investment is a 10 or 20 “bagger” (i.e., multiple of invested capital) in five years, or if I want to be even more aggressive, over three years. Table III presents these more aggressive invested capital multiples implications in terms of IRR.

TABLE III: CHOOSING FROM ALTERNATIVE INVESTMENTS

	Investment A 10x Invested Capital in Three Years	Investment B 10x Invested Capital in Five Years	Investment C 20x Invested Capital in Three Years	Investment D 20x Invested Capital in Five Years
Year 0	(\$100,000)	(\$100,000)	(\$100,000)	(\$100,000)
Year 1	-	-	-	-
Year 2	-	-	-	-
Year 3	\$1,000,000	-	\$2,000,000	-
Year 4	-	-	-	-
Year 5	-	\$1,000,000	-	\$2,000,000
IRR	115%	58%	171%	82%

For each investment shown in Table III, assume that the initial investment is \$100,000 and that no cash distributions will be made to the investor until the projected exit year. The IRR for invested capital multiples of 10 and 20 times, with holding periods between three and five years, ranges from 58% to 171%. The range of return means that the value of the initial \$100,000 investment is growing annually at a compounded average growth rate between 58% and 171%. Therefore, achieving liquidity at 10 to 20 times invested capital in five years is quite extraordinary, and in three years is spectacular. Moreover, based on the IRR of these investments, a three-year holding period offers the greatest investor return. Assuming that entrepreneurs project investment alternatives with the multiples shown in Table III, the investor should select the ventures with shorter holding periods.

Considering the IRR as the primary factor in the investment selection process for A, B, C, and D in this example (Table III), the venture expecting 10 times in three years offers a higher return on invested capital than the investment expecting 20 times in five years (i.e., 115% v. 82%). To be more conservative, let us extend the holding periods for investments A, B, C, and D in Table III to 10 years. Now, using a 10-year holding period, the IRR of a venture with a multiple of 10 and 20 times results in a return of 26% and 35%, respectively. It is clear that these investments have far weaker returns than the investment in Company A in Table II, which offers a multiple of three times invested capital in three years (i.e., 44.2%). It becomes obvious that the NPV and IRR on alternative investments

should impact the investment decision, especially when choosing from alternative investments. Specifically, the derived IRR of the investment and of its alternatives should be adequately evaluated in addition to the business models, revenue growth, profit margins, expected cash flows, liquidity assumptions, and holding periods of each investment opportunity. At this point, the potential and relative economics of the early-stage investments have been disclosed. It would be opportunistic to step back and reassess the major assumptions driving the returns to the minority shareholder, especially the proposed timing of liquidity.

IDENTIFYING LIQUIDITY ASSUMPTIONS

Financial theory provides tools and translation of deal economics. But even when investor’s financial analysis and understanding of returns is complete, the strength of any market-based valuation is only as good as the underlying market data that was utilized to determine the value of the company (e.g., comparable companies used, equity discount rate applied, profit margins forecasted, and pricing multiples of public companies utilized). *Identifying the entrepreneur’s liquidity assumptions and the comparability of the companies used to derive the invested capital return multiple is the acid test for a potential investor.*

Steven Kam has valued startup and early-stage venture capital-backed companies in the technology, software, life sciences, pharmaceutical, consumer product, and medical device industries since 1990 in connection with acquisitions, divestitures, debt financings, bankruptcy restructurings, financial reporting, and litigation support. (kam@coagentvaluation.com)

CONTACT INFORMATION

SAN FRANCISCO
601 CALIFORNIA ST., SUITE 800 415.392.0888 V
SAN FRANCISCO, CA 94108 415.392.7070 F

LOS ANGELES
21700 OXNARD ST., SUITE 1080 818.905.8330 V
WOODLAND HILLS, CA 91403 818.905.8340 F

ORANGE COUNTY
650 TOWN CENTER DR., SUITE 1200 714.668.0272 V
COSTA MESA, CA 92626 714.668.0137 F

