Using Multiples of Cost As A Measure of Royalty Investment Performance ©

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In projecting the possible result of investing in the stock of a company, many equity investors use a shorthand measure: the number of times the amount invested is anticipated to increase. This description is not useful without the period the investment is to be held, as the true measure of performance is the Internal Rate of Return (IRR), which indicates amount of profit for the given period of investment.

As a rule of thumb for the venture capital investor, it is generally accepted that an investment which doubles in a little less than 5 years has appreciated by 15% a year; by the same token there has been only a 7% per annum IRR if the exit transaction takes place after 10 years.

Realizing a five-fold return in five years represents a 38% IRR, whereas the same multiple of an investment held for ten years represents only a 17.5% IRR.

Using the same multiple as the number of years held produces the following IRRs:

3x3 = 44%
4x4 = 41%
5x5 = 38%
6x6 = 35%
7x7 = 32%
8x8 = 30%
9x9 = 28%
10x10 = 26%

The IRR table that follows this article shows all the variations of years and returns, up to 20x multiple over 20 years. It is a standard table for any MBA to keep on hand.

However, this table anticipates the results of equity investment transactions; the traditional Internal Rate of Return (IRR) tables do not work in determining the potential IRR of royalties transactions.

The tables used by venture capital and private equity groups assume the following knowledge: the cost their investment, the value of the exiting transaction, and the period in which their capital is to be employed. They then use this point-to-point result to calculate the IRR projected during the given period. This means one input of capital at the beginning, and one output of exit proceeds at the end. All of the capital is exposed to potential loss, up to 100%, for the entire term of the investment.

In the case of royalties, the amount at risk, decreases with each royalty payment (usually quarterly). We structure royalty transactions intended to have cumulative royalty payments equal to the initial cost of the royalty in between four to six years.

When asked, during the course of negotiating the terms of the redemption right held by the business owner, I frequently suggest 5 times cost in 5 years or 10 times in 10 Years, yielding an IRR of 38% and 26% respectively. Of course, the amount to be paid by the royalty issuer is less than the full amount of the agreed multiple, since the royalties which have been paid are credited on a time-based formula.

The point is that if royalties are paid whenever the royalty issuing company receives revenues and distributed to royalty investor's quarterly, their cost of investment, or risk exposure, declines with each payment. With royalties there is one input of capital at the beginning, and multiple outputs of income throughout the investment period. Therefore, royalties transactions actually deliver a much higher effective IRR than would be the case in a single point-to-point calculation of the full amount of the investment.

The crediting of royalties paid earlier receives a greater percentage credit than those paid more recently, to reflect the time value of money.

Once these principles are understood, these are not difficult negotiations, as there are three main reasons why a royalty issuing company would want to pay a premium to terminate all royalty payments: a. the company is being acquired; b. the company wishes to sell equity, possibly through an Initial Public Offering; or c. because the projected revenues are being achieved or exceeded, and the royalty payments, as pre-tax income dollars, are no longer an efficient use of the company's cashflow.

In the case of a successful royalty issuer, there will always be a desire to reacquire the royalties. This provides investor liquidity and can be done by direct negotiation with royalty investors or in several forms of tenders.

As described above, the true IRR levels are much higher than those we use in our website calculators and samples, which for the sake of comparison assume a point-to-point model. This is because we cannot predict the actual royalty payment levels, depending on which of the various approaches are used. Our models, except for the REX-RIAR.com (Royalty Issuer Assured Return) approach, also do not assume any reinvestment of the quarterly royalties proceeds; they assume that proceeds are absorbed as current income by investors when received. If even a modest reinvestment rate in conservative investments or deposits is assumed, for example 2%, the compounding effect over 20 years further amplifies the real returns realized by the royalties investor.

Royalties are the better way of both investing in and financing of privately owned businesses.

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Internal Rate of Return table

The 20 year Internal rate of return (IRR) on a multiple of original investment realized over an assumed time period table following is an important and useful tool. For example, making 3 times an investment in 5 years is a 24.6% IRR, the same IRR as making 9 times in 10 years.

IRR (%) on multiple of initial investment realized over an assumed time period

Multiple and Years	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2	41.4	73.2	100.0	123.6	144.9	164.6	182.8	200	216.2	231.7	246.6	260.	274.2	287.3	300.0	312.3	324.3	335.9	347.2
3	26.0	44.2	58.7	71.0	81.7	91.3	100.0	108.0	115.4	122.4	128.9	135.1	141.0	146.6	152.0	157.1	162.1	166.8	171.4
4	18.9	31.6	41.4	49.5	56.5	62.7	68.2	73.2	77.8	82.1	86.1	89.9	93.4	96.8	100.0	103.1	106.0	108.8	111.5
5	14.9	24.6	32.0	38.0	43.1	47.6	51.6	55.2	58.5	61.5	64.4	67.0	69.5	71.9	74.1	76.2	78.3	80.2	82.1
6	12.2	20.1	26.0	30.8	34.5	38.3	41.4	44.2	46.8	49.1	51.3	53.3	55.2	57.0	58.7	60.4	61.9	63.4	64.8
7	10.4	17.0	21.9	25.8	29.2	32.0	34.6	36.9	38.9	40.9	42.6	44.3	45.8	47.2	48.6	59.9	51.1	52.3	53.4
8	9.1	14.7	18.9	22.3	25.1	27.5	29.7	31.6	33.4	35.0	36.4	37.8	39.1	40.3	41.4	42.5	43.5	44.5	45.4
9	8.0	13.0	16.7	19.6	22.0	24.1	26.0	27.7	29.2	30.5	31.8	33.0	34.1	35.1	36.1	37.0	37.9	38.7	39.5
10	7.2	11.6	14.9	17.5	19.6	21.5	23.1	24.6	25.9	27.1	28.2	29.2	30.2	31.1	32.0	32.8	33.5	34.2	34.9
11	6.5	10.5	13.4	15.8	17.7	19.4	20.8	22.1	23.3	24.4	25.3	26.3	27.1	27.9	28.7	29.4	30.1	30.7	31.3
12	5.9	9.6	12.2	14.4	16.1	17.6	18.9	20.1	21.2	22.1	23.0	23.8	24.6	25.3	26.0	26.6	27.2	27.8	28.4
13	5.5	8.8	11.3	13.2	14.8	16.1	17.3	18.4	19.4	20.3	21.1	21.8	22.5	23.2	23.8	24.4	24.9	25.4	25.9
14	5.1	8.2	10.4	12.2	13.7	14.9	16.0	17.0	17.9	18.7	19.4	20.1	20.7	21.3	21.9	22.4	22.9	23.4	23.9
15	4.7	7.6	9.7	11.3	12.7	13.9	14.9	15.8	16.6	17.3	18.0	18.6	19.2	19.8	20.3	21.8	21.3	21.7	22.1
16	4.4	7.1	9.1	10.6	11.8	12.9	13.9	14.7	15.5	16.2	16.8	17.4	17.9	18.4	18.9	19.4	19.8	20.2	20.6
17	4.2	6.7	8.5	9.9	11.1	12.1	13.0	13.8	14.5	15.1	15.7	16.3	16.8	17.3	17.3	18.1	18.5	18.9	19.3
18	3.9	6.3	8.0	9.4	10.5	11.4	12.2	13.0	13.6	14.2	14.8	15.3	15.8	16.2	16.7	17.0	17.4	17.8	18.1
19	3.7	6.0	7.6	8.8	9.9	10.8	11.6	12.3	12.9	13.5	14.0	14.5	14.9	15.3	15.7	16.1	16.4	16.8	17.1
20	3.5	5.6	7.2	8.4	9.4	10.2	11.0	11.6	12.2	12.7	13.2	13.7	14.1	14.5	14.9	15.2	15.5	15.9	16.2