

## **A Case Study: Different terms for the same company seeking \$5 million for a revenue royalty investment**

A closely held, privately-owned company, Exco, seeks \$5 million for a revenue royalty, used to finance either an acquisition or to generate an immediate increase in revenues.

Exco has been in business for more than 6 years and has been profitable, with increasing revenues, for the last 3 years. The revenues for the current year will be \$10 million. The Compound Annual Growth Rate (CAGR) for each of the approaches described below is assumed to be the same. Exco has and expects to continue to have at least a 20% pre-tax and 10% Net-After-Tax profit margin. Similar publicly traded companies in the same industry generate a price/earnings ratio of 10 times per-share profits.

Following are the terms which may theoretically negotiated for a \$5 million royalty using three of our different approaches. The Data Entry and Analytics pages generated by our Royalties Analytical System for each follow. The approaches are:

[REX-Basic.com](#), the least complicated,

[REXdebt-shareRoyalties.com](#), in which the royalty issuer first borrows \$5 million from either the royalty investor or another lender on terms 30% higher than current commercial lender rate, with a royalty rate reflecting the greatly reduced capital risk to commence on the repayment of the loan, and

[REX-RIAR.com](#) (Royalty Issuer Assured Royalty), in which the company issuing the royalty assures the royalty investor (with either

internal assets or through a third-party assurance) of a minimum payment of royalties for an agreed period or periods. The REX-RIAR approach also introduces the concept of a Credited Royalty (amount of royalty payments being retained by issuer until maturity of royalty payment period) as well as displaying the results for the conventionally Distributed Royalty.

The Royalties Analytic System is described in some detail at <http://royalties.website>, with individual links to each component of the system.

REX-Basic.com - Exco 1

**Data Entry**  
For Project Name- **Exco**

**ROYALTY FINANCING CALCULATOR**  
EQUITY RETENTION - INCREASING INCOME

Total Royalty  P/E Ratio   
Maturity (years)  NAT   
Comparable Investment Rate

Royalty Structure	Rates	Through Year	CAGR	Rates	Beginning Year	Through Year
Royalty 1	7.00%	5	CAGR 1	15.00%	1	10
Royalty 2	5.00%	10	CAGR 2	10.00%	11	20
Royalty 3	2.00%	20	CAGR 3	0.00%		

### Projected Revenue

Year 1	10,000,000	Year 11	38,696,639
Year 2	11,500,000	Year 12	42,566,303
Year 3	13,225,000	Year 13	46,822,933
Year 4	15,208,750	Year 14	51,505,227
Year 5	17,490,063	Year 15	56,655,749
Year 6	20,113,572	Year 16	62,321,324
Year 7	23,130,608	Year 17	68,553,457
Year 8	26,600,199	Year 18	75,408,803
Year 9	30,590,229	Year 19	82,949,683
Year 10	35,178,763	Year 20	91,244,651

This is the basic Exco Case Study, and its revenue assumptions remain constant in the other two cases. The Royalty Rate, beginning at 7% and decreasing in subsequent periods to 5%, and then 2%, would result in the following anticipated returns to investors, if the projected revenues were achieved.



## REX Royalty Financing Analytics

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For Project - **EXCO**

**ROYALTY FINANCING  
CALCULATOR**  
EQUITY RETENTION - INCREASING INCOME

Total Royalty : \$5,000,000

Price/Earning Ratio : 10

Maturity : 20 years

Net-After-Tax : 10.00%

Year	Projected Revenues	Royalty Rate	Royalty Distribution	Cumulative Royalties	Annual Current Yield	Percent (%) of Cost	Compound Annual RoR	IRR (%)	Business Value
1	10,000,000	7.00%	700,000	700,000	14%	14%	-86%	-86	10,000,000
2	11,500,000	7.00%	805,000	1,505,000	16.1%	30.1%	-45.1%	-52.3	11,500,000
3	13,225,000	7.00%	925,750	2,430,750	18.5%	48.6%	-21.4%	-28	13,225,000
4	15,208,750	7.00%	1,064,613	3,495,363	21.3%	69.9%	-8.6%	-12.2	15,208,750
5	17,490,063	7.00%	1,224,304	4,719,667	24.5%	94.4%	-1.1%	-1.7	17,490,063
6	20,113,572	5.00%	1,005,679	5,725,346	20.1%	114.5%	2.3%	3.7	20,113,572
7	23,130,608	5.00%	1,156,530	6,881,876	23.1%	137.6%	4.7%	8	23,130,608
8	26,600,199	5.00%	1,330,010	8,211,886	26.6%	164.2%	6.4%	11.3	26,600,199
9	30,590,229	5.00%	1,529,511	9,741,397	30.6%	194.8%	7.7%	13.9	30,590,229
10	35,178,763	5.00%	1,758,938	11,500,335	35.2%	230%	8.7%	16	35,178,763
11	38,696,639	2.00%	773,933	12,274,268	15.5%	245.5%	8.5%	16.6	38,696,639
12	42,566,303	2.00%	851,326	13,125,594	17%	262.5%	8.4%	17.2	42,566,303
13	46,822,933	2.00%	936,459	14,062,053	18.7%	281.3%	8.3%	17.7	46,822,933
14	51,505,227	2.00%	1,030,105	15,092,158	20.6%	301.9%	8.2%	18.2	51,505,227
15	56,655,749	2.00%	1,133,115	16,225,273	22.7%	324.5%	8.2%	18.6	56,655,749
16	62,321,324	2.00%	1,246,426	17,471,699	24.9%	349.4%	8.1%	18.9	62,321,324
17	68,553,457	2.00%	1,371,069	18,842,768	27.4%	376.9%	8.1%	19.2	68,553,457
18	75,408,803	2.00%	1,508,176	20,350,944	30.2%	407%	8.1%	19.4	75,408,803
19	82,949,683	2.00%	1,658,994	22,009,938	33.2%	440.2%	8.1%	19.7	82,949,683
20	91,244,651	2.00%	1,824,893	23,834,831	36.5%	476.7%	8.1%	19.8	91,244,651

Investors would receive all their original capital back in just over 5 years, from the cumulative stream of revenue royalties distributed quarterly. The Internal Rate of Return (IRR) for the investment would be 16% over the first 10 years, rising gradually to nearly 20% over the full 20-year term.

# REXDEBT-SHAREROYALIES.COM = Exco 2

**DATA ENTRY** Project Name: **Exco 2**

Loan Amount: **5,000,000.00** Loan Maturity (Years): **5** Loan Interest Rate: **7.00%** Amortization Frequency: **Monthly**

Base Revenue: **10,000,000.00** NAT %: **10.00%** Pre-tax Profit %: **20** P/E Ratio: **10**

**Royalty Structure**

	Rates	Through Year
Royalty 1	<b>0.00%</b>	<b>5</b>
Royalty 2	<b>3.00%</b>	<b>12</b>
Royalty 3	<b>2.00%</b>	<b>20</b>

**Compound Annual Growth Rate**

	Rates	Beginning Year	Through Year
CAGR 1	<b>15.00%</b>	<b>1</b>	<b>10</b>
CAGR 2	<b>10.00%</b>	<b>11</b>	<b>20</b>
CAGR 3	<b>0.00%</b>		

**Projected Revenues**

Year 1	<b>10,000,000</b>	Year 6	<b>20,113,572</b>	Year 11	<b>38,696,639</b>	Year 16	<b>62,321,324</b>
Year 2	<b>11,500,000</b>	Year 7	<b>23,130,608</b>	Year 12	<b>42,566,303</b>	Year 17	<b>68,553,457</b>
Year 3	<b>13,225,000</b>	Year 8	<b>26,600,199</b>	Year 13	<b>46,822,933</b>	Year 18	<b>75,408,803</b>
Year 4	<b>15,208,750</b>	Year 9	<b>30,590,229</b>	Year 14	<b>51,505,227</b>	Year 19	<b>82,949,683</b>
Year 5	<b>17,490,063</b>	Year 10	<b>35,178,763</b>	Year 15	<b>56,655,749</b>	Year 20	<b>91,244,651</b>


Year	Annual Return Net Investment	Internal Rate of Return (IRR) Full Recapture Rates			Pre-tax Profit ( Including royalty payments )	NAT Profit ( Including royalty payments )	Business Value
		Pre	Post	Total			
1	7%	-73.42%		-73.42	2,000,000	1,000,000	10,000,000
2	7%	-34.85%		-34.85	2,300,000	1,150,000	11,500,000
3	7%	-13.12%		-13.12	2,645,000	1,322,500	13,225,000
4	7%	-0.98%		-0.98	3,041,750	1,520,875	15,208,750
5	7%	6.18%		6.18	3,498,013	1,749,006	17,490,063
6	6.07%		-93.93%	7.72	3,962,033	1,981,016	19,810,165
7	7.88%		-68.73%	9.36	4,547,338	2,273,669	22,736,690
8	9.96%		-45.67%	11	5,220,439	2,610,219	26,102,193
9	12.35%		-28.86%	12.54	5,994,504	2,997,252	29,972,522
10	15.11%		-16.87%	13.96	6,884,680	3,442,340	34,423,400
11	17.22%		-8.59%	15.15	7,567,148	3,783,574	37,835,740
12	19.54%		-2.61%	16.16	8,317,863	4,158,931	41,589,314
13	14.73%		0.54%	16.75	9,217,295	4,608,647	46,086,474
14	16.6%		3.2%	17.26	10,135,024	5,067,512	50,675,122
15	18.66%		5.41%	17.71	11,144,527	5,572,263	55,722,634
16	20.93%		7.26%	18.11	12,254,980	6,127,490	61,274,898
17	23.42%		8.79%	18.46	13,476,478	6,738,239	67,382,388
18	26.16%		10.08%	18.77	14,820,125	7,410,063	74,100,627
19	29.18%		11.17%	19.03	16,298,138	8,149,069	81,490,689
20	32.5%		12.09%	19.27	17,923,952	8,961,976	89,619,758

In the Exco 2 Case Study, the investment begins with a short term debt at 7%, which converts to revenue royalties after the 5th year. Using the same revenue assumptions, but with lower royalty rates beginning at 3% and

then decreasing to 2%, the IRR at the end of 20 years would be very similar in both Exco 1 and Exco 2, and the investor would have zero capital risk after the 5<sup>th</sup> year.

### REX-RIAR.com - Exco 3

Welcome User: **Exco 3** Last Login:



**For Project Name- Exco 3**

## Data Entry

Total Investment

Assured Multiple of Cost  X

Assured Amount(Years)

Royalty payment period (Years)

P/E Ratio

\* NAT % for A

\* NAT % for B

Fixed Rate (FR)%:

FR is annual fixed rate of return at which total distributed and accumulated royalties are invested.

Distributed Royalty Payments:--

Royalty Structure	Rates	Through Year
Royalty 1	6.00%	10
Royalty 2	3.00%	20
Royalty 3	0.00%	

Credited Royalty Payments:--

Royalty Structure	Rates	Through Year
Royalty 1	7.50%	20
Royalty 2	0.00%	
Royalty 3	0.00%	

CAGR	Rates	Beginning Year	Through Year
CAGR 1	15.00%	1	10
CAGR 2	10.00%	11	20
CAGR 3	0.00%		

Projected Revenue

Year	Revenue	Year	Revenue
Year 1	13,225,000	Year 11	51,176,305
Year 2	15,208,750	Year 12	56,293,936
Year 3	17,490,063	Year 13	61,923,329
Year 4	20,113,572	Year 14	68,115,662
Year 5	23,130,608	Year 15	74,927,229
Year 6	26,600,199	Year 16	82,419,952
Year 7	30,590,229	Year 17	90,661,947
Year 8	35,178,763	Year 18	99,728,141
Year 9	40,455,577	Year 19	109,700,956
Year 10	46,523,914	Year 20	120,671,051

Apply a CAGR

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IRR Table

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\* Issuer Pre and Net After Tax estimates should take into consideration the payment and retention of royalty payments."

## RATES OF RETURN FOR ROYALTIES

Net Amount Invested	Original	Year 1	Year 2	Year 3	Year 4	Year 5
(Deducting royalty payments)	5,000,000	4,206,500	3,293,975	2,244,571	1,037,757	0

Number of additional years necessary to reach full return of investment : **-5 year**

Royalty Payment Period: **20 years**

Original Royalty : **\$5,000,000**

Fixed Rate (FR): **2%**

Price/Earning Ratio : **10**

Assured Amount: **\$15,000,000 in 10 years**

Assured Multiple of Cost : **3 x**

Net-After-Tax for A : **10.00%**

Net-After-Tax for B : **15.00%**

[View Analytics Table Explanations and Clarifications](#)

Year	Projected Annual Revenue	Royalty Rate		FR Increment	Annual Royalty		Cumulative Royalties			Multiple of Cost			% Assured Amount	
		A	B		A	B	A	B	C	A	B	C	A	B
1	13,225,000	6	8	5,971	793,500	991,875	793,500	991,875	799,471	0.2	0.2	0.2	5.3	6.6
2	15,208,750	6	8	22,977	912,525	1,140,656	1,706,025	2,132,531	1,734,973	0.3	0.4	0.3	11.4	14.2
3	17,490,063	6	8	42,857	1,049,404	1,311,755	2,755,429	3,444,286	2,827,234	0.6	0.7	0.6	18.4	23.0
4	20,113,572	6	8	66,052	1,206,814	1,508,518	3,962,243	4,952,804	4,100,100	0.8	1.0	0.8	26.4	33.0
5	23,130,608	6	8	93,063	1,387,836	1,734,796	5,350,079	6,687,600	5,580,999	1.1	1.3	1.1	35.7	44.6
6	26,600,199	6	8	124,470	1,596,012	1,995,015	6,946,091	8,682,615	7,301,481	1.4	1.7	1.5	46.3	57.9
7	30,590,229	6	8	160,940	1,835,414	2,294,267	8,781,505	10,976,882	9,297,834	1.8	2.2	1.9	58.5	73.2
8	35,178,763	6	8	203,239	2,110,726	2,638,407	10,892,231	13,615,289	11,611,799	2.2	2.7	2.3	72.6	90.8
9	40,455,577	6	8	252,249	2,427,335	3,034,168	13,319,566	16,649,457	14,291,383	2.7	3.3	2.9	88.8	111.0
10	46,523,914	6	8	308,984	2,791,435	3,489,294	16,111,001	20,138,751	17,391,802	3.2	4.0	3.5	107.4	134.3
11	51,176,305	3	8	362,007	1,535,289	3,838,223	17,646,290	23,976,974	19,289,098	3.5	4.8	3.9	117.6	159.8
12	56,293,936	3	8	401,393	1,688,818	4,222,045	19,335,108	28,199,019	21,379,310	3.9	5.6	4.3	128.9	188.0
13	61,923,329	3	8	444,783	1,857,700	4,644,250	21,192,808	32,843,269	23,681,793	4.2	6.6	4.7	141.3	219.0
14	68,115,662	3	8	492,577	2,043,470	5,108,675	23,236,278	37,951,944	26,217,840	4.6	7.6	5.2	154.9	253.0
15	74,927,229	3	8	545,217	2,247,817	5,619,542	25,484,095	43,571,486	29,010,874	5.1	8.7	5.8	169.9	290.5
16	82,419,952	3	8	603,190	2,472,599	6,181,496	27,956,694	49,752,982	32,086,662	5.6	10.0	6.4	186.4	331.7
17	90,661,947	3	8	667,030	2,719,858	6,799,646	30,676,552	56,552,628	35,473,550	6.1	11.3	7.1	204.5	377.0
18	99,728,141	3	8	737,324	2,991,844	7,479,611	33,668,396	64,032,239	39,202,718	6.7	12.8	7.8	224.5	426.9
19	109,700,956	3	8	814,719	3,291,029	8,227,572	36,959,425	72,259,811	43,308,466	7.4	14.5	8.7	246.4	481.7
20	120,671,051	3	8	899,928	3,620,132	9,050,329	40,579,557	81,310,140	47,828,527	8.1	16.3	9.6	270.5	542.1

Year	% Rates of Return						A + FR	(A+FR) % A	Issuer's Projected Net After Tax Return		NAT Multiplied By Suggested P/E/R for Business Value	
	IRR (%)		Annual yield (%)		RRRR (%)	RRRR % IRR			A	B	A	B
	A	B	A	B								
1	-84.1	-80.2	15.9	19.8	0	100.0	799,471	100.8	1,322,500	1,983,750	12,431,500	19,837,500
2	-48.6	-41.3	18.3	22.8	0	100.0	935,502	102.5	1,520,875	2,281,313	14,296,225	22,813,125
3	-23.9	-15.9	21.0	26.2	0	100.0	1,092,261	104.1	1,749,006	2,623,509	16,440,659	26,235,095
4	-8.2	-0.4	24.1	30.2	0	100.0	1,272,866	105.5	2,011,357	3,017,036	18,906,758	30,170,358
5	2.1	9.6	27.8	34.7	3.41	100.0	1,480,899	106.7	2,313,061	3,469,591	21,742,772	34,695,912
6	9.1	16.1	31.9	39.9	10.48	100.0	1,720,482	107.8	2,660,020	3,990,030	25,004,187	39,900,299
7	14.0	20.7	36.7	45.9	15.44	100.0	1,996,354	108.8	3,059,023	4,588,534	28,754,815	45,885,344
8	17.6	23.9	42.2	52.8	19.04	100.0	2,313,965	109.6	3,517,876	5,276,814	33,068,037	52,768,145
9	20.3	26.3	48.5	60.7	21.71	100.0	2,679,584	110.4	4,045,558	6,068,337	38,028,242	60,683,366
10	22.3	28.1	55.8	69.8	23.73	100.0	3,100,419	111.1	4,652,391	6,978,587	43,732,479	69,785,871
11	23.1	29.4	30.7	76.8	24.59	100.0	1,897,296	123.6	5,117,631	7,676,446	49,641,016	76,764,458
12	23.7	30.3	33.8	84.4	25.28	100.0	2,090,211	123.8	5,629,394	8,444,090	54,605,118	84,440,904
13	24.2	31.1	37.2	92.9	25.84	100.0	2,302,483	123.9	6,192,333	9,288,499	60,065,629	92,884,994
14	24.7	31.6	40.9	102.2	26.3	100.0	2,536,047	124.1	6,811,566	10,217,349	66,072,192	102,173,493
15	25.0	32.1	45.0	112.4	26.67	100.0	2,793,034	124.3	7,492,723	11,239,084	72,679,412	112,390,844
16	25.3	32.4	49.5	123.6	26.97	100.0	3,075,789	124.4	8,241,995	12,362,993	79,947,353	123,629,928
17	25.6	32.7	54.4	136.0	27.22	100.0	3,386,888	124.5	9,066,195	13,599,292	87,942,089	135,992,921
18	25.8	32.9	59.8	149.6	27.43	100.0	3,729,168	124.6	9,972,814	14,959,221	96,736,297	149,592,212
19	26.0	33.1	65.8	164.6	27.6	100.0	4,105,748	124.8	10,970,096	16,455,143	106,409,927	164,551,434
20	26.1	33.2	72.4	181.0	27.75	100.0	4,520,060	124.9	12,067,105	18,100,658	117,050,919	181,006,577

In the Exco 3 case study, all revenue and other key metrics remain the same as in Exco 1 and Exco 2. However, investors are assured of a minimum of 3 times their initial cost; and royalties generated are not distributed by the company, but retained and reinvested on behalf of investors at 2% annual return. The break-even point remains the same (about 5 years), but anticipated IRR after 10 years is 28.1%, and after 20 years IRR rises to 33.2%, when the final accumulated payout to investors is made.

There is so much in the RIAR approach benefiting both investors and royalty issuers that I believe it will ultimately become the structuring standard.

It is important to remember that in each of the approaches the royalty issuing company would have, as we recommend, a right of redemption permitting the termination of the royalty on pre-agreed terms, resulting in returns for the investor substantially exceeding the investors' originally targeted IRR.

I will be pleased to chat with those having questions or observations re the Analytics of the Data Entry for each of the three approaches.

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