

Team Game Masters

December 17, 2009

# Tax Motivated Film Financing at Rexford Studios

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## 1 Case Summary

Rexford Studios started as an independent development and production company during mid 1980s and had gone through several affiliations with major studios for co production and distribution. In 1990s the founders of Rexford acquired an independent distribution company to pursue their dream of running a full-fledged movie studio; financing and owning the films they produced. Rexford was often compared to some of the major players in the industry such as Lion's Gate and Intermedia. The market leaders in the business were Disney, MGM and Fox Entertainment.

Rexford Studios is a mid-sized film studio with a track record of successful films. Although there are some upcoming future projects on its slate, Rexford has been concerned with the difficulties it is facing in financing these especially with the rise in production and marketing costs.

The company is ready to start its next film project and plans to produce as many as 15 films over next 3 years. Responsibility for arranging financing for these films rests with Rexford's president, Charles Shaw. In the past, Rexford relied largely on bank financing, but now Shaw is looking for alternative sources to finance his film projects. He has received an offer from a group of German Investors, who want to participate in the financing of Rexford's next film, and is now considering whether to go ahead with it or not. Shaw has to analyze the proposed deal, both to quantify the benefits to Rexford and to understand the incentives for the investors. Shaw also needs to assess the risks of the deal and decide if he can negotiate better terms for Rexford.

### 1.1 Questions to be answered

- What risks do film studios face in production and distribution of a film? Are the risks same for all studios?

- How many studios use financing to manage their risk? When does financing externally make sense?
- What does the structure for proposed deal from FFI look like? Who are the potential parties involved?
- If Shaw decides to fund *Bait and Wait* with the structure proposed, how much will he have to deposit into Neue Landesbank when the deal closes? In determining the amount of the deposit, what is the appropriate discount rate to be applied?
- Does the deal provide any value to Rexford? If so much, how much? To which other parties are value allocated?
- Should Shaw pursue the proposed deal? Should he propose any changes? If so, what would make the deal better for Rexford?
- What risks does the deal pose for each party? How could these risks be effectively mitigated?

### **1.1 Risks Faced in film production and Distribution**

1. How to fund the project is a major area which can bring out a lot of risk for the company.
2. Bargaining power of the actors. All the top actors and actresses have a contract with big agencies and management companies and they command a good portion of the agency's revenue as success fee. The agency has to keep the stars satisfied or else they would move to competition.
3. Increasing costs of Production and Marketing. These have to be born by the studio as well as the distributors of the movie.
4. Threat from Ancillary Markets. Growth of ancillary markets like TV, Home Video might pose a threat by eating into the market share of the theatres.
5. Distribution Rights for ancillary products
6. Licenses for films

All these kinds of risks generally would remain the same for all the studios. However the impact and effect of these risks on the studio would differ depending on the size, market share and reputation which a particular studio commands.

## 1.1 Financing

Almost all the studios into the business make use of a combination of sources to finance their projects in order to reduce the risk. The source of funding could be through debt, through their cash in hand or raise equity to finance their projects. Using these sources of fund raising in different combinations enables studios to reduce the risks faced by them. If the studio is expected to cast foreign actors and pay them in foreign currency, they can choose currencies which are depreciating against their home currencies so that the repayment value is less compared to the initial borrowing.

## 1.2 Hedging Strategies:

### Financing Internally

1. Leading and lagging payment clause in the agreements
2. Try to Match foreign inflows and outflows in the same currency (natural hedge)

### Financing Externally

1. Forward Rate Agreement
2. Futures and Options
3. Money market Hedge
4. Swaps

## 1.1 Main parties involved in the deal

- Rexford Studios (Film Studio in need of Finance for film project)
- German FFI (Group of Investors willing to fund the film)
- Neue Landesbank AG. (Intermediary Bank)

### 1.1 The German Offer

Rexford’s next movie is called ‘Bait and Wait’ for which a \$50 million budget has been approved. The German offer from FFI is that of a sale-leaseback transaction. This implied that the German Investors would buy the film as well as all the associated rights with it for a cash payment of \$50 million and then lease the film back to Rexford for a period of 20 yrs in return for yearly lease payments. The Neue Landesbank will act as the defeasance bank. It would issue a letter of credit on behalf of Rexford studios to guarantee payment to FFL. The bank will then discharge Rexford’s lease obligation. For this service the bank would charge a one time fees of 0.5% of \$50 million and an annual fees of 0.2% of the deposit balance at the beginning of every year.

## 2 Cash Flows to Neue Landesbank AG

(figs in 000’s)

Time Period	Years	A/C Balance	Commission for Bank	Actual Lease Payments to German Investors	PV of Lease Payments
0	2002			(Outflow to Bank)	
1	2003	\$ 42,910.99	\$ 85.82	\$ 2,485.00	\$ 2,344.34
2	2004	\$ 40,566.65	\$ 81.13	\$ 2,609.00	\$ 2,322.00
3	2005	\$ 38,244.65	\$ 76.49	\$ 2,740.00	\$ 2,300.56
4	2006	\$ 35,944.10	\$ 71.89	\$ 2,877.00	\$ 2,278.85
5	2007	\$ 33,665.24	\$ 67.33	\$ 3,021.00	\$ 2,257.47

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Time Period	Years	A/C Balance	Commission for Bank	Actual Lease Payments to German Investors	PV of Lease Payments
6	2008	\$ 31,407.78	\$ 62.82	\$ 3,172.00	\$ 2,236.13
7	2009	\$ 29,171.64	\$ 58.34	\$ 3,330.00	\$ 2,214.64
8	2010	\$ 26,957.00	\$ 53.91	\$ 3,490.00	\$ 2,189.67
9	2011	\$ 24,767.33	\$ 49.53	\$ 3,672.00	\$ 2,173.45
10	2012	\$ 22,593.88	\$ 45.19	\$ 3,855.00	\$ 2,152.61
11	2013	\$ 20,441.27	\$ 40.88	\$ 4,048.00	\$ 2,132.44
12	2014	\$ 18,308.83	\$ 36.62	\$ 4,250.00	\$ 2,112.12
13	2015	\$ 16,196.71	\$ 32.39	\$ 4,463.00	\$ 2,092.43
14	2016	\$ 14,104.29	\$ 28.21	\$ 4,686.00	\$ 2,072.62
15	2017	\$ 12,031.66	\$ 24.06	\$ 4,920.00	\$ 2,052.94
16	2018	\$ 9,978.72	\$ 19.96	\$ 5,166.00	\$ 2,033.58
17	2019	\$ 7,945.14	\$ 15.89	\$ 5,425.00	\$ 2,014.65
18	2020	\$ 5,930.49	\$ 11.86	\$ 5,696.00	\$ 1,995.56
19	2021	\$ 3,934.93	\$ 7.87	\$ 5,981.00	\$ 1,976.80

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Time Period	Years	A/C Balance	Commission for Bank	Actual Lease Payments to German Investors	PV of Lease Payments
20	2022	\$ 1,958.13	\$ 3.92	\$ 6,280.00	\$ 1,958.13

<b>PV of Commissions</b>	<b>\$ 595.29</b>
<b>Entry Load</b>	<b>\$ 250.00</b>
<b>Initial Amt Deposited by Rexford at Bank</b>	<b>\$ 42,910.99</b>
<b>Total Payment to the Bank</b>	<b>\$ 43,756.28</b>

## 2.1 Steps in Calculation of the amt deposited by Rexford Studios at Neue Landesbank AG

1. We assume the cost of capital (Discount rate) at 6% pa.
2. Calculate the Present Value of the Lease Payments due to the German Investors.
3. The present value of the actual lease payments is deducted from the balance every year.  
This is given as:  
Opening A/C Balance= Previous Opening Balance – PV(Lease Payments)
4. The commission due to the Bank is calculated at 0.2% of the remaining account balance at the beginning of every year. The PV of all the commission paid to the bank is calculated.
5. Entry Load is charged at 0.5% on \$50 million. This is a one time payment made at the beginning of the first year.
6. The sum of step 4 and 5 is deposited as a separate account with the bank.
7. So, the initial account balance (account 1) is 42910.99 and account 2 – PV of commission + Entry load. i.e. \$845.29  
Absolute gain to the bank = Sum of all commissions + Entry load



$$= 874.1 + 250$$

$$= \$1124.1$$

Gain if TVM is considered =  $595.29 + 250$

$$= \$ 845.29$$

### 1 Cash flows to Rexford

(figs in 000's)

	Years	Cash Flow
Cash inflow from German Investors	2002	\$50,000.00
Cash deposited in Neue Landesbank	2002	(\$43,756.28)
<b>Gain to Rexford</b>		\$6,243.72

#### 1.1 Steps involved in calculating the gains to Rexford

1. The cash inflow for Rexford studios from German investors as given is \$50,000
2. The cash deposited by Rexford studios in Landesbank for future lease payments to German investors including the commission to bank is \$43,756 as calculated in the previous section.
3. The net gain for Rexford Studios is  $50000 - 43756.28 = \$6243.72$

### 1 Cash flows to German Investors

(figs in 000's)

Years	Cash Flow	German Tax Rate	Tax Deductible	Post German flow	Tax Cash	Outflow on Taxes	Tax Outflow Discounted @ 6%
2002	\$ (51,000.00)	51.20%	Y	(51,000.00)	\$	\$ (26,112.00)	
2003	\$ 2,485.00	51.20%	N	1,212.68	\$	\$ 1,272.32	\$ 1,200.30

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Years	Cash Flow	German Tax Rate	Tax Deductible	Post German flow	Tax Cash	Outflow on Taxes	Tax Outflow Discounted @ 6%
2004	\$ 2,609.00	49.60%	N	1,314.94	\$	\$ 1,294.06	\$ 1,151.71
2005	\$ 2,740.00	49.60%	N	1,380.96	\$	\$ 1,359.04	\$ 1,141.08
2006	\$ 2,877.00	44.30%	N	1,602.49	\$	\$ 1,274.51	\$ 1,009.53
2007	\$ 3,021.00	44.30%	N	1,682.70	\$	\$ 1,338.30	\$ 1,000.06
2008	\$ 3,172.00	44.30%	N	1,766.80	\$	\$ 1,405.20	\$ 1,325.66
2009	\$ 3,330.00	44.30%	N	1,854.81	\$	\$ 1,475.19	\$ 1,039.95
2010	\$ 3,490.00	44.30%	N	1,943.93	\$	\$ 1,546.07	\$ 1,028.22
2011	\$ 3,672.00	44.30%	N	2,045.30	\$	\$ 1,626.70	\$ 1,020.61
2012	\$ 3,855.00	44.30%	N	2,147.24	\$	\$ 1,707.77	\$ 1,010.82
2013	\$ 4,048.00	44.20%	N	2,258.78	\$	\$ 1,789.22	\$ 999.09
2014	\$ 4,250.00	44.20%	N	2,371.50	\$	\$ 1,878.50	\$ 989.57
2015	\$ 4,463.00	44.20%	N	2,490.35	\$	\$ 1,972.65	\$ 980.34
2016	\$ 4,686.00	44.20%	N	2,614.79	\$	\$ 2,071.21	\$ 971.07
2017	\$ 4,920.00	44.20%	N	2,745.36	\$	\$ 2,174.64	\$ 961.85

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Years	Cash Flow	German Tax Rate	Tax Deductible	Post German flow	Tax Cash	Outflow on Taxes	Tax Outflow Discounted @ 6%
2018	\$ 5,166.00	44.20%	N	2,882.63	\$	\$ 2,283.37	\$ 952.77
2019	\$ 5,425.00	44.20%	N	3,027.15	\$	\$ 2,397.85	\$ 943.90
2020	\$ 5,696.00	44.20%	N	3,178.37	\$	\$ 2,517.63	\$ 934.96
2021	\$ 5,981.00	44.20%	N	3,337.40	\$	\$ 2,643.60	\$ 926.17
2022	\$ 6,280.00	44.20%	N	3,504.24	\$	\$ 2,775.76	\$ 917.42
<b>TOTAL</b>				<b>23515.11</b>	<b>\$</b>		<b>\$ 20505.09</b>

### 1.1 Steps involved in calculation

1. Cost of Capital is taken to be as 6%
2. Cash outflow for the German Investors is \$51 million in 2002. They receive a periodic income from the lease as shown in column two of the above table.
3. Column 3 shows the forecasted tax rates in Germany for the 20 yr period.
4. The initial outflow of \$51 million is fully tax deductible under the German tax laws. The income from the lease is taxed at the given rate.
5. Column 5 shows the post tax cash flows available to the German Investors every yr.
6. Column 6 shows the tax amount due to the German Govt.
7. Last column shows the PV of the tax outflow made every yr.

## 1 Interpretation

1. Had the German Investors not made the investment in Rexford's project in 2002 then the amount of \$ 51 million would have been taxed @ 51.2% and the tax outflow would have been \$26.112 million in 2002. Their revenue would have been \$24.888 million.
2. Since they made the investment and received periodic cash inflows, the PV of their post tax earnings is \$23.515 million. So the loss on revenue from the investment decision is  
 $\$24.888 \text{ million} - \$23.515 \text{ million} = \$1.373 \text{ million}.$
3. As a result of the investment the German Investors saved \$ 26.112 million on tax payments in 2002. The PV of the taxes they paid on the income from the lease was \$20.505 million.
4. So the net savings on the taxes is \$ 26.112 million - \$20.505 million = \$5.606 million.
5. So the Net Gain for the German Investors is \$5.606 million - \$1.373 million = \$4,234 million.

Hence the investment is beneficial for the Germans and was the reason for the Tax Motivated Film Financing.

## 1 Risk faced by various parties

### 1. For German Investors

- a. Since the German Investors are paid in dollars, they face a risk for Exchange rate fluctuations i.e. Translation risk
- b. The risk can be mitigated by the internal and External Hedging Strategies explained earlier.

### 2. For Banks

- a. Since the Banks pay fixed interest rate @ 6% on the amount deposited, if the interest rate comes down, the bank faces interest rate risk.

**3. For Company**

- a. If the Interest rate falls below 4.5%, the company has to deposit more money with Landesbank than what they received from German Investor. So, Rexford has to negotiate with the German investors to reduce the lease payments.

**1 Suggestions to Mr. Shaw**

- 1. Rexford can negotiate with the German investors to increase the lease tenure. This would reduce the initial payment that has to be made to the bank.
- 2. Since Rexford is depositing a huge amount in bank, they can negotiate with them to increase the deposit rate so that they can deposit less initially.
- 3. Shaw can negotiate with the bank to decrease the Entry load and the subsequent commissions paid each year.

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