



Case Analysis

International Financial Markets

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Due to past depreciation in the yen, Disney has decided to consider hedging future yen royalties paid by Tokyo Disneyland. Disney can enter into a currency swap to capitalize on its comparative advantage to borrowing in its local debt market and therefore obtain interest rates more favorable than the French utility could hope to obtain. Each party then swaps the currency they could receive at lower rates and share in the overall benefit. Disney may also wish to hedge long-term foreign exchange exposures since future fluctuations of a currency can erode a project's NPV to the point of rendering it unprofitable. Furthermore, Disney could have reached the limit of their borrowing capabilities and are looking for a way to borrow more. It is an indirect way of going into capital markets to obtain a desired currency.

Both Disney and the French utility have the opportunity of obtaining loans with lower overall costs. They can also convert fixed-rate debt into floating-rate debt (or vice versa) to better match revenue streams. IBJ can benefit from this arrangement through commissions and fees. As currency swap activity increases, the revenue generated from this activity has become significant. The swap bank also benefits when it pays out less than it receives from each counter party to the other counter party.

Currency swaps are off-book transactions since they do not appear on a balance sheet as assets or liabilities. Although appearing as a footnote in the financial reports, this method of borrowing can elude all but the very thorough examinations. Disney and the French utility will realize benefits when they can match debt to revenues in the same currency. The avoidance of exchange-rate fluctuations can often green light a project in a foreign country. Companies are able to lock in long-term exchange rates, often beyond what banks are willing to quote, through the repayment of debt service obligations denominated in a foreign currency. This flexibility is valuable to firms with foreign currency revenue streams. Swaps create value for a company when structured in a way where the total cost is lower for both parties. The companies can then use the funds saved through swaps for further investments in positive NPV projects.

The following risks are inherent to the Industrial Bank of Japan:

Interest Rate Risk—This risk results from unfavorable changes in interest rates before the dealer has the chance to identify and secure the counter party (other side) of the currency swap.

Basis Risk—This comes from the floating rates of the two counter parties whom are pegged to differing indices. If the indexes are not correlated, the swap bank could be faced with a shortage of floating rate funds when passing from one side to the other. The bank's spread could shrink or they could even incur a loss.

Exchange Rate Risk—This risk relates to the risks the swap bank manages from fluctuating exchange rates from the time the bank accepts one side of the swap to the time the bank finds another interested counter party. Any exchange rate changes are focused on the swap bank.

Credit or Default Risk—Swap banks also face this type of risk as companies go out of business or have bad times and fail to pay their obligations. Therefore the swap bank would have to fulfill the obligation of the defaulting party to the counter party. It is expected that the maturity dates and the size of the principal sums needed by the counter parties are going to differ widely so finding an exact match of needs in the swap is difficult; therefore, a mismatch risk is always present and must be managed.

Sovereign Risk—Countries can, at any time, impose exchange restrictions on their currency so this risk is always present. Changes could result in rendering the currency swap unprofitable or impossible.

Undesirable Hedging Techniques

Among the options Disney has to hedge its risk, there are several undesirable options, which it should avoid. First, Disney could use foreign exchange options, futures, and forwards to hedge its risk. Typically, these contracts exist only for maturities of 2 years or less; thus, going against a Disney long-term hedging strategy. Second, foreign exchange forward contracts could be used. However, these instruments have the same short maturities and are considered by banks as part of its total exposure to Disney, and tie up valuable credit lines. Third, Disney could swap out existing dollar debt into Yen liability. This short-term strategy was done earlier as Disney issued Eurodollar not to mature from 1 to 4 years. This is unattractive because of the scarcity of Yen swap rates for maturities less than 4 years. In addition, this option would not provide for any additional cash and Disney is interested in reducing its short-term debt. Fourth, long-term Eurodollar debt, which could be more effectively swapped into Yen, is inadequate because of Disney's recent Eurodollar note issue and their temporarily high debt ratio. Finally, Disney could issue Euroyen

bonds; however, Disney was ineligible to issue these bonds under the current Japanese Ministry of Finance Guidelines

Disney Alternatives

Disneyland received ¥8 billion in royalties from Tokyo Disneyland in fiscal 1984 and Andersen expects these receipts to grow at 10% - 20% per year over the next few years. Furthermore, the current spot rate of ¥248/\$ represents almost an 8% depreciation in the value of the yen from ¥229.7/\$ a year ago. Based on this information, Disney has decided to hedge these yen cash flows with one of two options: issue a 10-year yen loan or issue a 10-year ECU Eurobond swapped with a French utility's yen bond.

Disney's first option, a ¥15 billion, 10-year bullet loan with interest of 7.5% paid semi-annually, has an all-in-cost of 7.75%. At first glance, this option represents an attractive way to pay down their higher interest short-term debt and hedge yen cash flows.

Alternatively, Disney could issue a 10-year ECU Eurobond with a sinking fund that would then be swapped into a yen liability at an attractive all yen cost. This debt instrument at an all-in-cost of 7.01% has lower costs than the yen loan. Goldman was prepared to underwrite ECU80 million 10-yr Eurobonds at 100.25% of par, with a coupon of 9 1/8%, and underwriting fees of 2%. Additional expenses to be paid by Disney were capped at \$75,000. ECU Eurobonds would have an annual sinking fund payment of ECU16 million beginning in the 6th year and continuing until maturity.

In addition to arranging the Eurobond, Goldman would also arrange an ECU/yen swap intermediated by the Industrial Bank of Japan (IBJ), shown in Exhibit 1. Disney would exchange its ECU Eurobond's net proceeds in exchange for IBJ making future ECU payments to Disney that exactly matched the coupons and principal payments of the Eurobond. Disney, at the same time, would receive the yen equivalent of the net ECU proceeds from the Eurobond converted at the spot rate, and would make future semiannual yen swap payments according to a fixed schedule. Disney could then exchange the initial yen proceeds for dollars at the spot rate in order to reduce its short-term borrowings. The ECU spot exchange rate was \$.7420/ECU1 and the yen/dollar exchange rate was ¥248/\$.

Goldman's proposal for an ECU bond issue along with an ECU / Yen swap is Disney's best hedging strategy. This solution provides Disney with new dollar financing through the exchange of its initial yen inflow in the spot market. It also gives Disney a yen denominated liability to mitigate its exchange rate risk exposure. Disney's "all-in" yen cost of 7.01%, utilizing the currency swap is also very favorable when compared with the 7.75% AIC of the yen term loan. We also believe the currency swap strategy is preferable to the use of outright forwards contracts in this case, as liquid markets existed only for contracts with maturities of two years or less. Although, Disney was quoted rates on long-term forwards contracts by banks, they were viewed as part of the banks exposure to Disney, and therefore, would tie up Disney's lines of credit.

The details of this currency swap are shown in Exhibit 2. While Disney reduces its debt cost with this swap by 74 basis points, the French utility actually increases its debt cost by 236 basis points. The French utility is willing to do so because of the opportunity it gets to service its debt with its native currency, a particularly attractive option given the appreciating yen forecasts and no yen income. The IBJ, however, appears to loose money on this deal. Exhibit 7 in the case shows it pays out ECU 1.5 million more than it receives in the initial swap and does not collect enough excess income through the semi-annual payments to make up for this loss. It is assumed that this is either a gross oversight by the IBJ or a mistake in the case as no responsible company will embark on a negative NPV project.

Recommendation

Although the opportunity offered by Goldman is the best hedging opportunity for Disney that has been offered, we do not recommend the currency swap because of the forecasted appreciation of the yen to the dollar. If Disney hedges now with a currency swap, they will be locking in their yen debt repayment at the fixed currency exchange rate of ¥248/\$. Since an appreciating yen buys more dollars, Disney should maintain their strategy of using Tokyo Disneyland's royalty payments to service dollar debt. Forward exchange quotes are the best forecasting indicator of exchange rates. Therefore, despite the recent depreciation of the yen, Disney should maintain this strategy as long as both short term and long-term yen/dollar forward rates show the yen to be appreciating.

The value of using the appreciating yen to pay dollar debt can be seen in Exhibit 3. Using Anderson's prediction that royalty payments will increase over the short term by 10% and conservatively estimating that this growth will steadily decline after year three, Disney will realize \$556 million in royalties without a hedge, but only \$473 million with the swap (assuming a full swap of yen income for demonstration purposes). This represents an additional \$83 million in effective income, or a 17% increase, by taking advantage of the appreciating yen. While this may appear to be riskier than the hedging strategy, Disney can revisit the hedging issue once the forward exchange quotes reverse their appreciating trend.

In addition to the problem of the appreciating currency, Disney should not use the yen loan or currency swap to hedge its royalty payments due to the mismatch of payments. Disney's total expected royalties (as forecasted in Exhibit 3) are ¥117B, with average yearly revenue of ¥11 billion. The total payments of the yen swap are only ¥22 billion with an average semi-annual payment of ¥1.1 billion. The disparity of these cash flows suggests that this strategy would not adequately fulfill Disney's hedging needs. To hedge against these cash flows, Disney should use a debt instrument that requires payments approximately equal to their yen income. A sinking fund bond or loan with no balloon payment and semi-annual payments that approximated Disney's yen revenues would be a much better match.

While currency swaps are considered a conservative way to hedge against fluctuating currency exchange rates, they also shield the user from the beneficial aspects of an appreciating currency. As long as the best forecasting indicators predict the yen to move in Disney's favor, Disney should position themselves to take advantage of this movement. If Disney is truly concerned about protecting yen income and not breaching their dollar debt limits, they should use long term dollar debt to reduce their short-term dollar debt and yen income to reduce their long-term debt. If Disney is in fact concerned about breaching their dollar debt limits, they should recycle their short-term debt until it is paid off by the yen income. In the event that forecasters determine the yen will again start to depreciate, Disney can then hedge its yen income to protect its ability to pay off their long or short-term dollar debt.

Exhibit 1-Disney Swap Flow Diagram

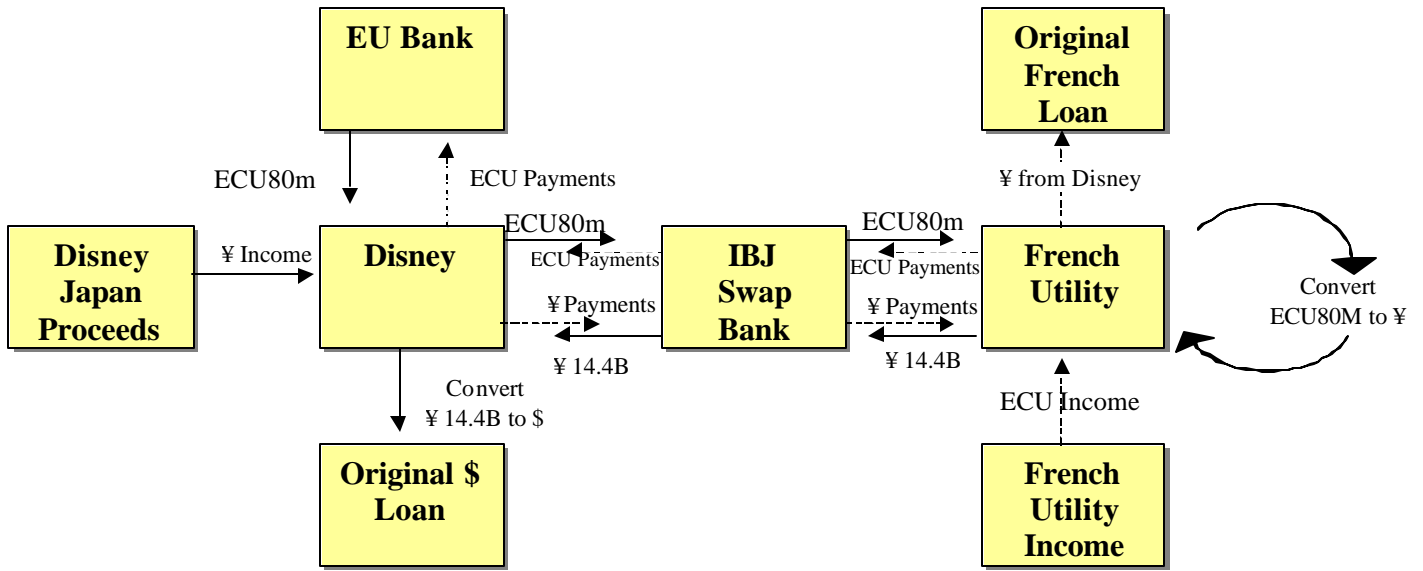


Exhibit 2-Disney Swap Flow with a Yen Loan at 7.5%

Disney Co			French Utility (AAA)		ECU to LIBOR Swaps		Yen to LIBOR Swaps	
	ECU Bond	Yen Loan	Orig Yen Loan	Yen Loan	bid	ask	bid	ask
Rate %	9.125%	7.50%	6.830%	6.69%	9.47%	9.19%	7.01%	7.01%
Principal	ECU 80.00	Yen 15,000.00	Yen 14,445.15	Yen 14,445.15	Quality Spread Differential			
Fee %	2.000%	0.75%	0.000%	0.00%	ECU	YEN	ECU/\$ bid	Yen/\$ ask
Fee	ECU 1.60	Yen 112.500	Yen 0.000	Yen 0.000	264.27	74.14	1.3477	248.000
AIC %	9.47%	7.75%	6.83%	7.01%	QSD Total		338	

Disney Co							
Period	Loan	Bond	Swap Flows		Swap Shortfall		Effective
	Yen	ECU	ECU	Yen	ECU	Yen	Yen
0.0	14887.500	78.499	(78.499)	14445.153	0.000	0.000	14445.153
0.5	(562.500)			(483.226)			(483.226)
1.0	(562.500)	(7.300)	7.300	(483.226)			(483.226)
1.5	(562.500)			(483.226)			(483.226)
2.0	(562.500)	(7.300)	7.300	(483.226)			(483.226)
2.5	(562.500)			(483.226)			(483.226)
3.0	(562.500)	(7.300)	7.300	(483.226)			(483.226)
3.5	(562.500)			(483.226)			(483.226)
4.0	(562.500)	(7.300)	7.300	(483.226)			(483.226)
4.5	(562.500)			(483.226)			(483.226)
5.0	(562.500)	(7.300)	7.300	(1808.141)			(1808.141)
5.5	(562.500)			(1764.650)			(1764.650)
6.0	(562.500)	(23.300)	23.300	(1721.160)			(1721.160)
6.5	(562.500)			(1677.670)			(1677.670)
7.0	(562.500)	(21.840)	21.840	(1634.179)			(1634.179)
7.5	(562.500)			(1590.689)			(1590.689)
8.0	(562.500)	(20.380)	20.380	(1547.199)			(1547.199)
8.5	(562.500)			(1503.708)			(1503.708)
9.0	(562.500)	(18.920)	18.920	(1460.218)			(1460.218)
9.5	(562.500)			(1416.728)			(1416.728)
10.0	(15562.500)	(17.460)	17.460	(1520.450)			(1520.450)
IRR	7.75%	9.47%	9.47%	7.01%			7.01%

Basis points savings = 74

French Utility Co							
Period	Orig Yen Loan	Loan	Swap Flows		Swap Shortfall		Effective
	Yen	Yen	ECU	Yen	ECU	Yen	ECU
0	14445.153	14445.153	80.000	(14445.153)	0.000	0.000	80.000
0.5	?	(483.226)		483.226			
1	?	(483.226)	(7.350)	483.226			(7.350)
1.5	?	(483.226)		483.226			
2	?	(483.226)	(7.350)	483.226			(7.350)
2.5	?	(483.226)		483.226			
3	?	(483.226)	(7.350)	483.226			(7.350)
3.5	?	(483.226)		483.226			
4	?	(483.226)	(7.350)	483.226			(7.350)
4.5	?	(483.226)		483.226			
5	?	(1808.141)	(7.350)	1808.141			(7.350)
5.5	?	(1764.650)		1764.650			
6	?	(1721.160)	(23.350)	1721.160			(23.350)
6.5	?	(1677.670)		1677.670			
7	?	(1634.179)	(21.880)	1634.179			(21.880)
7.5	?	(1590.689)		1590.689			
8	?	(1547.199)	(20.410)	1547.199			(20.410)
8.5	?	(1503.708)		1503.708			
9	?	(1460.218)	(18.940)	1460.218			(18.940)
9.5	?	(1416.728)		1416.728			
10	?	(1520.450)	(17.470)	1520.450			(17.470)
IRR	6.83%	7.01%	9.19%	7.01%			9.19%

(7548.673)

Basis points savings = -236

Exhibit 2—(Continued)

Swap Bank (Industrial Bank of Japan)							
<i>period</i>	Swap Flows with Disney		Swap Flows with Fr. Firm		Effective Flows		Effective ECU
	ECU	Yen	ECU	Yen	ECU	Yen	
0	78.499	(14445.153)	(80.000)	14445.153	(1.501)	0.000	(1.501)
0.5		483.226		(483.226)			
1	(7.300)	483.226	7.350	(483.226)	0.050	0.000	0.050
1.5		483.226		(483.226)			
2	(7.300)	483.226	7.350	(483.226)	0.050	0.000	0.050
2.5		483.226		(483.226)			
3	(7.300)	483.226	7.350	(483.226)	0.050	0.000	0.050
3.5		483.226		(483.226)			
4	(7.300)	483.226	7.350	(483.226)	0.050	0.000	0.050
4.5		483.226		(483.226)			
5	(7.300)	1808.141	7.350	(1808.141)	0.050	0.000	0.050
5.5		1764.650		(1764.650)			
6	(23.300)	1721.160	23.350	(1721.160)	0.050	0.000	0.050
6.5		1677.670		(1677.670)			
7	(21.840)	1634.179	21.880	(1634.179)	0.040	0.000	0.040
7.5		1590.689		(1590.689)			
8	(20.380)	1547.199	20.410	(1547.199)	0.030	0.000	0.030
8.5		1503.708		(1503.708)			
9	(18.920)	1460.218	18.940	(1460.218)	0.020	0.000	0.020
9.5		1416.728		(1416.728)			
10	(17.460)	1520.450	17.470	(1520.450)	0.010	0.000	0.010
<i>IRR</i>	9.47%	7.01%	9.19%	7.01%	-0.29%	0.00%	n/a

Basis points earnings = -29
 Basis points shared by all parties = 338

Exhibit 3—\$ Value Of Yen Appreciation

Disney's Effective Dollar Value Without The Swap				
Time	Exchange Rate (Yen/\$)	Royalty Payments Increase	Disney Japan Royalties (Yen)	\$ Value
Spot	248.05	NA	8,000,000,000	NA
1	242.65	10%	8,800,000,000	\$36,266,227
2	239.05	10%	9,680,000,000	\$40,493,621
3	231.55	10%	10,648,000,000	\$45,985,748
4	222.55	8%	11,499,840,000	\$51,673,062
5	213.55	6%	12,189,830,400	\$57,081,856
6	210.55	4%	12,677,423,616	\$60,210,988
7	204.05	2%	12,930,972,088	\$63,371,586
8	199.05	0%	12,930,972,088	\$64,963,437
9	192.55	0%	12,930,972,088	\$67,156,438
10	189.05	0%	12,930,972,088	\$68,399,747
			\$117,218,982,369	\$555,602,710

Disney's Effective Dollar Value With The Swap				
Time	Exchange Rate (Yen/\$)	Royalty Payments Increase	Disney Japan Royalties (Yen)	\$ Value
Spot	248.05	NA	8,000,000,000	NA
1	248.05	10%	8,800,000,000	\$35,476,718
2	248.05	10%	9,680,000,000	\$39,024,390
3	248.05	10%	10,648,000,000	\$42,926,829
4	248.05	8%	11,499,840,000	\$46,360,976
5	248.05	6%	12,189,830,400	\$49,142,634
6	248.05	4%	12,677,423,616	\$51,108,340
7	248.05	2%	12,930,972,088	\$52,130,506
8	248.05	0%	12,930,972,088	\$52,130,506
9	248.05	0%	12,930,972,088	\$52,130,506
10	248.05	0%	12,930,972,088	\$52,130,506
			\$117,218,982,369	\$472,561,912

Increased Dollar Value \$83,040,797