

NEXTEL PERU: EMERGING MARKET COST OF CAPITAL

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1.0 Executive Summary

Empresa Nacional de Telecomunicaciones S.A's (Entel) acquisition of Nextel Peru from NII Holdings Inc., at a purchase price of \$400 million is critically evaluated in this report. A key factor that determined whether the valuation of the investment is of fair value, is based upon the operation of Nextel Peru being within an emerging equity market, and hence its segmentation from global capital markets. The cash flows, the estimation of the cost of capital and the long-range growth rate of Nextel Peru were conducted to provide a result of a present value of \$487.244 million, which is indicative of a positive return. Hence, the acquisition value of \$400 million can be deemed to be understated, since the forecasted enterprise value is greater, and is thereby a profitable financial venture.

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Model (CAPM) (Humphery von Jenner, 2008). Since the latter model doesn't account for CRP; the CRCAPM however, adjusts the original CAPM equation to include the risks that are associated with investing in emerging markets such as Peru (Humphery von Jenner, 2008). The CRP has significant impact on valuations and its necessary calculations (Picardo, 2019), as is the case with the calculated CRP value of 5.95% in relation to the mathematical findings for the acquisition of Nextel.

3.2 Key Variables for the Valuation of Nextel

3.2.1 Country Risk Premium

The CRP throughout this report is a value of 5.95% (Appendix 1). This has been achieved by multiplying the country default spread by the standard deviation of equity in Peru, which is divided by the standard deviation of Peruvian government bonds. The country default spread is attained through the difference between the daily 30-year bond rates for Peru and the USA governments respectively; where the standard deviation of equity in Peru is based on the volatility of the monthly returns on the Peruvian market at 9%. Whereas, the standard deviation of Peruvian government bonds is based on the volatility of the daily returns at 0.92%. To account for the measure of a company's exposure to country risk, the term lambda (λ) is utilised. Lambda is scaled around one, with a value of one indicative of a company's average exposure to country risk, whilst a value above/below one, indicative of above/below average exposure to country risk (Damodaran, 2020). In relation to the calculations pertaining to Nextel, λ equals 1.33, which demonstrates above average exposure to country risk (Appendix 1).

3.2.2 Risk – free Rate

The risk-free rate throughout this report is a value of 2.92%, acquired from the arithmetic averages of 30-year US government bond yields from 2012 (Appendix 2). According to valuation theory, it is most appropriate to match the risk-free security with the period in

which the free cash flows are expected (Emilson, 2020). In this case, since Nextel's free cash flows are assumed to be received in perpetuity, the most optimal strategy is to match the equity investment with a bond with a longer maturity (Emilson, 2020), which in this case is the U.S 30 year government bond yield. This eliminates the plausibility of errors in valuation, and furthermore, investing in these bonds pose virtually zero risk, as the U.S government has never defaulted on a debt (Ross, 2020).

3.2.3 Asset Beta

The asset beta procured for Nextel is a value of 0.71, which has been calculated based on the current average unlevered betas of S&P and MSCI (World). The comparable company approach (CCA) has been utilised, which allows for the evaluation of the value of Nextel using metrics of other companies that are of similar size within the same industry (Chen, 2020). This eliminates any possibilities of biases and errors, as the comparators used in the calculations are all Latin American wireless companies (Appendix 3).

3.2.4 Equity Market Risk Premium

The equity MRP is 5% and is the assumed MRP provided by the ACA. This 5% value plays a necessary role in the calculation of the cost of equity of Nextel, as it will be weighted by the beta coefficient, and contribute towards the numerical outcome of the cost of equity (Damodaran, 2020).

3.2.5 Free Cash Flow (FCF)

The use of comparator firms' historical performance, to aid in the calculation of its future performance were utilised, since they share similar business structure and financial multiples to that of Nextel Peru. The numbers forecasted for the first five years demonstrate increasing free cash flows, which were then discounted by a discount factor specific to the year of each cash flow, in order to provide the present value (PV) of all the free cash flows (Appendix 4). During valuations, risk can be accounted for either through cash flows or via the rate used to

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influenced the CRP, and in turn the overall value of the cost of equity. Yet, this assumption has been justified throughout the report, and showcases the possible errors and over-valuation of the present value, which factors such as the CRP are able to remedy.

5.0 Reference

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6.0 Appendices

6.1 Appendix 1

Country Risk Premium	
Std Dev of Peruvian Equity Market	31.18% Annualized std dev based on using the volatility of monthly returns on the Peruvian Equity Market of 9%
Std Dev of Peruvian Govt Bonds	15% Annualized std dev based on using the volatility of daily returns on the Peruvian of 0.92%
Country Default Spread	2.78% Arithmetic mean of the difference between historical Government Bond Yields and the Peruvian Government Bond Yields
Country Risk Premium	5.95% Country Risk Premium = Country Default Spread * (Std Dev of Equity in Peru/ Std Dev of Debt in Peru)

Lambda (λ)	1.33 Nextel Peru emit 100% of revenues domestically, while the average Peruvian firm derived 75% of its revenue locally
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6.2 Appendix 2

Risk-free Rate	2.92% Average 30-Year US Government Bond Yield in 2012
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6.3 Appendix 3

Asset Beta	0.71 Average of Unlevered Beta's Current and Historic; S&P and MSCI world
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(Local Currency in Millions)															
Company	Equity Value (t)	Debt	Minority Interest	Enterprise Value	Current D/V	Historic D/V (2)	Current E/V	S&P Equity Beta (3)	MSCI World Equity Beta (4)	MSCI Latin Equity Beta (5)	Local Equity Beta (6)	Debt Beta (7)	Tax Rate	S&P Unlevered Beta (8)	MSCI (World) Unlevered Beta (9)
Compañías															
América Móvil	963,882	363,878	8,890	1,336,850	27.23%	17.73%	72.77%	1.12	1.01	0.75	0.91	0.12	0.14	0.84	0.85
Enfrend Participaciones S.A.	13,373	2,128	4,842	20,232	11.07%	27.10%	88.93%	0.53	0.63	0.64	0.50	0.03	0.28	0.41	0.48
Empres Nacional De Telecomunicaciones	2,556,930	385,758	0	2,942,718	14.60%	17.74%	85.38%	0.83	0.80	0.81	0.77	0.07	0.16	0.72	0.70
NIH Holdings	943	3,774	0	4,716	40.01%	41.68%	19.99%	0.65	0.77	0.67	0.65	0.18	0.35	0.45	0.52
OK SA	10,152	28,921	0	39,073	74.62%	33.48%	25.98%	1.08	1.14	1.08	0.86	0.15	0.28	0.78	0.82
Telecom Argentina	24,167	-3,969	200	20,398	-19.46%	-11.91%	119.46%	1.31	1.17	0.89	1.05	0.00	0.35	1.50	1.33
Telefonica Brasil	59,983	975	0	60,957	1.60%	2.28%	98.40%	0.73	1.38	0.63	0.47	0.00	0.40	0.71	1.52
Telefonos del Peru	7,833	2,213	0	10,045	22.03%	26.57%	77.97%	0.38	0.35	0.24	0.49	0.17	0.43	0.32	0.30
TRM Participaciones S.A.	21,186	1,432	0	22,628	7.15%	6.78%	92.85%	0.82	0.41	0.74	0.58	0.07	0.40	0.77	0.76
					0.24		0.76						30%	0.73	0.81
Source: All information except equity beta S&P CapitalIQ accessed 3/14/14.															
(1) Book price as of 4/1/13, except NIH Holdings, which was 4/9/13.															
(2) Quarterly average over the past three years.															
(3) Source: Bloomberg accessed 3/14/14. Raw data are monthly betas.															
(4) Source: Bloomberg accessed 3/14/14. Raw three-year monthly betas based on US dollar denominated returns.															
(5) Source: Bloomberg accessed 3/14/14. Raw three-year monthly betas based on US dollar denominated returns.															
(6) Source: Bloomberg accessed 3/14/14. Raw three-year monthly betas based on local currencies.															
(7) Cash before interest.															

Local Equity Unlevered Historic	S&P Unlevered Current	MSCI (World) Unlevered Current	MSCI (Latin) Unlevered Current	Local Equity Unlevered Current
0.77	0.84	0.77	0.58	0.69
0.43	0.47	0.56	0.57	0.50
0.67	0.72	0.70	0.71	0.67
0.45	0.27	0.30	0.28	0.27
0.63	0.39	0.41	0.39	0.33
1.20	1.57	1.39	1.06	1.25
0.46	0.72	1.55	0.62	0.46
0.40	0.33	0.31	0.23	0.42
0.54	0.76	0.75	0.69	0.54
0.62	0.68	0.75	0.57	0.57

0.71

6.4 Appendix 4

DCT Assumptions	
GDP Growth in Peru	7.00% IMF forecast for Peru's economic growth 2013-2019
Total Operating Costs Growth	2.85% Grow at rate of inflation - Average inflation of Peru past 3 years
Selling and Marketing Expenses	18.97% Average of past 3 years as a % of Service Revenue
General and Administrative Expenses	22.83% Average of past 3 years as a % of Operating Revenue
Effective Tax Rate	30% Average of Effective Tax Rates of listed comparators of Nextel

			Difference in Days Difference in Years	138 0.378	503 1.378	868 2.378	1234 3.381	1599 4.381
			15/08/2015	31/12/2015	31/12/2014	31/12/2015	31/12/2016	31/12/2017
Discounted Cash Flow	2010A	2011A	2012A	2013E	2014E	2015E	2016E	2017E
All Data in 000's (\$)								
Operating Results								
Services Revenue	281995	321942	314039	408683	437290	467901	500624	536699
ARPU	289	251	203	247	247	247	257	247
Estimated Average Subscribers	993	1,252	1,548	1,656	1,772	1,896	2,028	2,170
Handset Revenue	30021	32187	29302	31353	33548	35896	38409	41098
Total Operating Revenue	312016	354129	343341	440036	470838	503797	539063	576797
Less: Cost of Services	100948	107710	116137	111042	114811	117246	117626	119883
Less: Cost of Handset Sales	62810	71657	85261	75399	79714	82408	81430	83498
Total Operating Costs	162858	179567	201398	186441	194526	199654	199056	203381
Gross Profit	149158	174562	141943	253395	276313	301143	340007	373416
Less: Selling & Marketing Expenses	55788	63575	72375	83175	89319	95571	102261	109419
Less: General & Administrative Expenses	71112	75672	83549	106466	107498	115023	123075	131690
EBITDA	22268	35318	(13,981)	69654	79496	92549	114671	132309
Less: Depreciation	34137	35858	35088	35088	35088	35088	35088	35088
EBIT	(11,874)	(543)	(49,069)	34,566	44,407	58,461	79,583	97,219
Less: Taxes	-	-	-	10346.48129	13292.38158	17498.89482	23821.34661	29100.2737
EBIT				24219.25	31115.96	40961.75	55761.35	68318.48
Plus: D&A	34,137	35,838	35,088	35,088	35,088	35,088	35,088	35,088
Less: Capex	91,000	105,590	77,700	35,088	35,088	35,088	35,088	35,088
Less: Changes in NWC	-	41,139	(99,661)	-	-	-	-	-
Free Cash Flow	(71,737)	(111,320)	7,980	24,219	31,115	40,962	55,761	68,118
Discount Factor				1.05	1.20	1.38	1.58	1.80434499
PV of FCF				23,016	25,843	29,733	35,361	37,752

6.5 Appendix 5

Total Operating Costs Growth	2.85% Grow at rate of inflation - Average inflation of Peru past 3 years
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Terminal Value	
Perpetual Growth Rate	2.85%
Cost of Capital	14.42%
Value of Perpetuity	605,427
PV of Perpetuity	335,538

1.0 Executive Summary

Weighted Average Cost of Capital	
Empresa Nacional de Telecomunicaciones S.A's (Entel) acquisition of Nextel Peru from NII	
Risk-free Rate	2.92%
Asset Beta	0.71
Holdings Inc., at a purchase price of \$400 million is critically evaluated in this report. A key	
Market Risk Premium	5.00%
Lambda (λ)	1.33
Country Risk Premium	5.95%
Cost of Equity	14.42%

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Enterprise Value	
PV of Terminal Value	335,538
acquisition value of \$400 million can be deemed to be understated, since the forecasted	
Enterprise Value	487,244
enterprise value is greater, and is thereby a profitable financial venture.	
Cost of Acquisition	400000
Acquisition Profit	87,244