INTERCONNECT COMMUNICATIONS

International Consultancy for the design, development and implementation of BU-LRAIC model for calculation of public mobile telephony services costs in Albania

WACC Paper

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1. Introduction

This paper has been written by InterConnect Communications (InterConnect) on behalf of the Electronic and Postal Communications Authority of Albania (AKEP) as part of a project entitled "International Consultancy for the design, development and implementation of a BU-LRAIC model for calculation of public mobile telephony services costs".

In order to assess and impose cost-oriented tariff regulation for SMP operators, in compliance with the requirements of the Law on Electronic Communications, AKEP now intends to develop the BU-LRAIC model (Bottom-Up Long Run Average Incremental Cost – BU-LRAIC), for the determination of wholesale services costs of individual mobile networks and to understand the implications for the prices of retail mobile services.

The purpose of this paper is to propose a cost of capital value to be used in the LRAIC exercise and to explain how it has been estimated.

The document is structured as follows:

- Chapter 2 states the definition of cost of capital we have used;
- Chapter 3 explains how we have estimated the first main component of the cost of capital, the expected return on equity;
- Chapter 4 explains how we have estimated the second main component of the cost of capital, the expected return on debt;
- Chapter 5 shows how we have estimated the cost of capital on the basis of expected returns on debt and equity.

According to our best estimate and following all the analysis contained in the aforementioned chapters, we believe the pre-tax, nominal cost of capital of a mobile operator in Albania should be approximately 17.5%.

WACC calculations have also been carried out by PWC as part of a separate project to determine the BU LRAIC costs of the wholesale services provided by Albtelecom. The methodology adopted by InterConnect and PWC differs in the sourcing and extrapolation of input data from Albania and external sources. The results and common parameters of the WACC calculations are however reasonably similar which adds weight to the integrity and effectiveness of the two methodologies and data sources used. Fixed and mobile operators have been subject to different levels of WACC in other cost determinations by NRAs in Europe and elsewhere.

2. Definition of Cost of Capital

The cost of capital represents the return investors expect from investing in a firm with a specific set of risks in a contestable and competitive market. It is equal to the alternative return investors could achieve from investments that are similar in terms of risk and time horizon.

Investors finance a business either by contributing equity or debt capital and the weighted average cost of capital is the combined cost of equity and debt, reflecting the average returns required by equity and debt holders, weighted by the market values of debt and equity.

The WACC may be expressed in either nominal or real terms and either before or after tax. For the purposes of this regulatory costing study, cost of capital is applied to nominal pre-tax amounts and for this reason a nominal pre-tax cost of capital is appropriate.

The nominal pre-tax WACC can be calculated as:

$$\text{Nominal pre-tax WACC} = \frac{\text{Cost of Equity Capital} \times E/V + \text{Cost of Debt} \times D/V}{1 - tc}$$

Notes:

E – Market Value of Equity
D – Market Value of Debt
V- Market Value of Firm, i.e. E + D
tc - Corporation tax rate

In the following sections we explain how the cost of equity and debt may be estimated.

3. Cost of Equity

The cost of equity is the minimum rate of return a firm must offer owners to compensate for waiting for their returns, and for bearing risk. Put differently, cost of equity is broadly defined as the risk-weighted projected return required by investors, where the return is largely unknown. The cost of equity is therefore inferred by comparing the investment to other investments with similar risk profiles.

There are several alternative measures which may be used to estimate the cost of equity capital, including:

- Capital Asset Pricing Model (CAPM);
- Dividend Growth Model;
- Arbitrage Pricing Theory.

Most national regulatory authorities in Europe base their WACC estimates on the CAPM. The AKEP has also opted for the CAPM approach. The CAPM includes two postulates worth noting:

Firstly, equity holders should only be rewarded for market related risk as they can diversify away sectoral and company risk by holding a diversified portfolio of shares. Secondly, the extent of the reward for market risk depends on the extent to which a share moves with market movements, i.e. the volatility as compared to the market as a whole.

According to the CAPM the required return on equity can be estimated as:

$$\mathbf{Re = Rf + \beta\ (Rm - Rf)}$$

Notes:
Re – Return on equity (more precisely, expected return on equity)
Rf – Risk free rate of return
β – Equity beta, which measures the co-variance between company and market returns
Rm – Return on the market portfolio.
Rm - Rf – Equity Risk Premium (ERP)

The standard CAPM, which was developed for the U.S. market, needs to be adjusted for country risk. Any investor in a country whose credit rating is below that of e.g. the U.S. or Germany incurs such a country risk. This currently applies to an investor in an Albanian business.

Including the expected country risk premium, the expected return on equity for an Albanian business is calculated as follows:

$$\mathbf{Re = Rf + \beta^{*}\ ERP + CRP}$$

Notes:
ERP – Equity Risk Premium
CRP – Country Risk Premium

The remaining sections of this chapter discuss in further detail the terms of the above equation and the values we propose for them.

3.1 Risk-free rate

The risk-free rate is defined as the return on an investment without interest rate risk, inflation, default, liquidity, maturity and reinvestment risk. In practice, the risk-free investment does not exist but other European NRAs typically use long-term government bonds as risk-free proxies. Unfortunately, in Albania the risk free rate is more difficult to determine. This is because government bonds are not risk-free, and because the maturity of these bonds is significantly shorter than the period of cash-flows covered in the LRAIC model. Using an Albanian government bond as risk-free rate would be incorrect in our view. Albanian government bonds include country risk, which affects debt and equity holders to different degrees. This is why we believe that country risk should be made explicit as a separate component in the WACC calculations.

We have used a weighted average 10-year Euro area government bond as the basis for the risk-free rate in Albania. The weight represents the GDP in each country.

Euro Area Country	10-year gov't bond interest rate	GDP weight
Austria	3.13%	3%
Belgium	3.55%	4%
Finland	3.26%	2%
France	3.43%	22%
Germany	3.13%	26%
Greece	6.00%	3%
Ireland	4.52%	2%
Italy	3.96%	18%
Netherlands	3.41%	7%
Portugal	4.23%	2%
Spain	3.87%	12%
Weighted average	**3.60%**	**100%**

Source: The Economist, March 2010

As the average bond yield of 3.60% includes the market's inflation expectations we need to strip-out Euro area inflation expectations and add Albanian inflation expectations to arrive at the risk-free rate for Albania. This is done using the Fisher equation:

(1+ nominal returns)/ (1+ inflation rate) = (1+real return)

	Value	Source:
RFR EU nominal	3.60%	EIU, March 2010
CPI EU	1.40%	EIU, March 2010
RFR EU real	2.17%	Calculation
CPI Albania	3.50%	BoA target rate
RFR Albania Nominal	**5.74%**	

We propose a risk-free rate of 5.74% for Albania.

3.2 Equity beta

The equity beta reflects the relation of a stock's returns with that of its reference stock market as a whole.

An equity beta of 0 means that the stock's price is not at all correlated with any variations in the value of its reference stock market index. A positive equity beta means that the asset tends to follow the market while a negative beta shows that the asset inversely follows the market. If the equity beta is above 1, the stock's price will tend to vary more than the stock market index in relative terms. In Finance volatility implies risk. Therefore an equity beta above 1 implies a higher risk than the systematic risk of the stock market as reflected in the Equity Risk Premium (ERP). This is why the equity beta is multiplied with the ERP in the CAPM. Formally, beta is the covariance between the specific stock and the market divided by the variance on the market portfolio:

$$\beta_E = \{1 + (1 - T_c) * D/E\} * \beta_A$$

Notes:

β_E - Equity beta
T_c - Effective corporate tax rate
D - Market value of debt
E - Market value of equity
β_E - Asset beta

There is no correct estimation period for beta. Increasing the estimation period increases the number of observations and is desirable to reduce the standard error. On the other hand we believe that there is a tendency for the beta of established operators to fall over time and, hence, using a long period of betas may result in overestimation for established operators.

As stated in the above formula[1], there are three variables affecting the equity beta:

- the effective corporate tax rate;
- the level of gearing;
- the asset beta.

The following sections of this chapter describe relevant values for these variables and how we have derived them.

[1] We have used the Miller-Modigliani formula like the majority of NRAs according to the IRGs.

3.2.1 Asset beta

There are several ways to estimate asset betas on the basis of historical and accounting data. However, as this costing study is concerned with a hypothetical operator, no such data exists. Hence, only two options remain to derive the asset beta: Benchmarking asset betas used by other regulators for similar studies and unlevering equity beta measurements for a group of mobile operators or "peer group".

Asset beta benchmarks

According to the IRG, the asset beta benchmarks used in its member states range from 0.6 in Cyprus to 1.4 in Finland as stated in the table below:

Country	Asset Beta
Cyprus	0.6
Iceland	0.6
France	0.8
Czech Republic	0.8
Belgium	0.9
Netherlands	1.1
Sweden	1.1
Greece	1.1
Denmark	1.1
Norway	1.2
Finland	1.4
IRG Average	**0.9**

Source: IRG

The average asset beta was 0.9. We do not know in detail how each of the IRG members has estimated the asset beta. Notwithstanding, in our experience the approach taken often involved peer group analysis supported by a cross check of benchmarks.

Asset beta peer group analysis

In the group of peers we have included all mobile operators for which Professor A. Damodaran has published data and that are listed on a U.S. or European stock exchange. The equity betas stated by Damodaran are five year averages of monthly observations until January 2010. We have unlevered the equity betas using the Miller-Modigliani formula, generally accepted for this purpose amongst IRG members.

Company Name	Equity Beta	Effective Tax Rate	Asset Beta	Gearing %
Mobistar SA	0.26	32.2%	0.24	9.7%
Vodafone Group plc	0.66	27.8%	0.48	34.1%
America Movil	1.30	25.0%	1.18	11.5%
Millicom Intl Cellular S A	1.50	16.1%	1.26	18.7%
Cellcom Israel Ltd	0.65	28.3%	0.54	22.9%
U.S. Cellular	1.10	12.2%	0.88	22.1%
Metro PCS Communic..	0.85	46.5%	0.52	53.8%
Mobile Telesystems OJSC	1.80	24.5%	1.54	18.1%
Average	**1.01**	**26.6%**	**0.83**	**23.9%**

Source: A. Damodaran, January 2010

3.2.2 Level of gearing

Like for the asset beta, there are effectively two approaches to estimating the level of gearing: Benchmarking and peer group analysis.

Gearing benchmarks

The values IRG members have used as gearing percentages and the implied D/E ratios are shown in the below table:

Country	Debt % of Firm Value	D/E ratio
Iceland	68%	213%
Austria	60%	150%
Czech Republic	46%	85%
Finland	42%	72%
Sweden	35%	54%
Germany	32%	47%
France	30%	43%
Belgium	25%	33%
Netherlands	25%	33%
Greece	24%	32%
Italy	20%	25%
Malta	20%	25%
UK	11%	12%
IRG Average	**33.7%**	**50.8%**

Source: IRG

Gearing peer group analysis

The average gearing ratio resulting from the peer group analysis was 23.9% and the implied average D/E ratio 36.9%.

Company Name	Debt % of Firm Value	D/E ratio
Mobistar SA	9.7%	10.8%
Vodafone Group plc	34.1%	51.7%
America Movil	11.5%	13.0%
Millicom Intl Cellular S A	18.7%	23.1%
Cellcom Israel Ltd	22.9%	29.7%
U.S. Cellular	22.1%	28.3%
Metro PCS Communic.	53.8%	116.4%
Mobile Telesystems OJSC	18.1%	22.1%
Peer group average	**23.9%**	**36.9%**

Source: A. Damodaran, January 2010

3.2.3 Effective tax rate

We suggest using the Albanian corporate tax rate of 10% as a proxy for the effective marginal tax rate that the hypothetical mobile network operator would pay.

3.2.4 Proposed equity beta for Albania

We propose using an asset beta of 0.83, which is the average for the peer group. We prefer this value over the 0.9 which the benchmarking exercise yielded. We believe the peer group

approach is more transparent and up-to date. The reasonably small difference between both approaches to estimate the asset beta is reassuring in our view.

For analogous reasons, we propose a gearing ratio of 24%, which is the same as a debt to equity ratio of 35%.

Using the Modigliani-Miller formula, the proposed equity beta is calculated as:

$$\beta_E = \{1+ (1- 10\%) * 31.3\%\}* 0.83 = 1.06$$

3.3 Equity risk premium

In finance, risk is the probability that an investment's actual return will be different than expected. The returns of a risk-free asset are certain, whereas those of a portfolio of equities are not. The reward investors expect for incurring the additional systematic risk of investing in equities instead of a risk-free asset is called equity risk premium (ERP). There are four alternative ways of estimating the expected risk premium in the CAPM:

- surveys;
- implied premium extracted from current market data;
- benchmarking;
- historical ERPs.

The first two yield forward-looking results.

3.3.1 Forward-looking ERP estimates

Surveys

A number of institutions carry out surveys among fund managers. For instance, the PWC survey of investors yielded a mean ERP of 3.5%, whereas a similar survey carried out by Morgan Stanley in the same year (2007) resulted in a mean ERP of 4.5%. The Securities Industry Association survey of 2004 found the expected median ERP to be 8.3% over the Treasury bond rate at that time. The 2009 "Fund Manager Survey Global", carried out by Merrill Lynch, shows an average ERP of 3.8%. Surveys among CFOs yielded an average ERP for the next 10 years over the ten-year U.S. Treasury bond of 4.7% for 2009, up from 4.2% in 2008[2].

The advantage of investor surveys is that they are truly forward-looking. However, the outcomes of investor surveys are extremely volatile, not only depending on who carries out the study but even more across time, often reflecting sentiment after recent market movements.

Implied ERP

Another forward-looking method is to estimate the implied premium on the basis of current market data. A formula that can be used to do so is:

ERP = Expected dividend yield next year + Expected annual dividend growth rate in the long run – Government bond yield.

[2] Graham, J.R. and C.R. Harvey, The Equity Risk Premium amid a Global Financial Crisis

This approach – like the survey approach - is ultimately also based on the expectations of institutional investors and only holds true if the overall stock market is correctly priced.

3.3.2 Historical ERP estimates

Nowadays, long historical series of equity returns and government bond yields exist and are widely available. The difference between these two is the historical risk premium. Estimating the ERP on the basis of historical data is the preferred approach of the majority of practitioners. It is worth noting that the historical ERP may vary according to the:

- time period;
- market;
- reference risk free security;
- averaging method.

Time period
The decision on how far back in time to go in our analysis is subjective. The longest time series of commonly used studies go as far back as 1900 in the case of Dimson, March and Staunton. The longer the time series is, the lower the standard error of the ERP estimate will be. However, some practitioners argue that the risk aversion of investors is likely to change over time. They are therefore willing to trade-off statistical accuracy to reflect more up-to date attitudes towards risk or the reduction of trading commission, which also affect the ERP. In our view, the standard error of the ERP estimate is so high if periods of less than 50 years are used that it outweighs the advantages of using shorter time series. The historical ERP estimates proposed at the end of this section are based on the longest possible series.

Market
Albania does not have a well established stock exchange yet. This means that we will have to use markets for which there are long time series. Furthermore, the market on which the ERP is to be based should include as many observations as possible to reduce the standard error. A global reference market is therefore the most appropriate market. A global market also has the advantage of neutralising any currency exchange rate impacts.

Reference risk-free security
ERPs are typically referenced to either short-term government bills or long term government bonds. To be consistent with the risk-free rate used for this study, government bonds should be the reference security to estimate the ERP.

Averaging method
There are two methods to calculate the average return on stocks: the geometric and the arithmetic averages. The geometric return effectively looks at the increase or decrease over a period of time and works out the annual return as the n^{th} root of this increase or decrease. The arithmetic approach looks at year-by-year returns, sums these and divides by the number of observations. It is worth noting that the ERP based on arithmetic averages is virtually always significantly higher than the geometric average ERP. Most NRAs have argued for an arithmetic average ERP. The historical ERP estimates proposed at the end of this section are based on arithmetic averages.

The ERP study which best complies with the aforementioned criteria is the analysis carried out by Dimson, Marsh and Staunton (DMS), published by UBS[3]. According to DMS, the global

[3] Dimson, E. , Marsh, P and M. Staunton, Credit Suisse Global Investment Returns Yearbook 2010

arithmetic average ERP over government bonds on the basis of observations from 1900-2009 is approximately 4.7%. However, DMS have argued that adjustments to the historical ERP need to be made to make it forward-looking. This is because certain factors which caused an increase in the historical ERP cannot be repeated. The main such factor is the integration of markets which resulted in an increase in the value of stocks and hence returns. As markets have become fully integrated, the integration of markets cannot be repeated. DMS estimate that 0.6% of the historical global ERP are due to market integration and the subsequent expansion of price-to-dividend ratios. It follows that the adjusted global arithmetic average ERP over government bonds according to DMS is approximately 4.1%[4].

3.3.3 ERP benchmarks used in other jurisdictions

A number of similar costing studies have been carried out across EU countries. The Independent Regulator Group (IRG) has provided ERP figures used in the jurisdictions of some of its members. It should be noted that these benchmarks were all based on data collected prior to 2008, i.e. before a severe market downturn. The average ERP reported by 16 IRG member states was 5.3%, with a standard deviation of 1.1%. The highest ERP was reported by Cyprus with 8%. The second highest ERP were used in Spain and Iceland with 6.2%, suggesting Cyprus may have chosen a broader definition of ERP than the remaining countries. The lowest ERP was reported by Denmark with 3.8%. Excluding Cyprus, the IRG average was 5.1%.

3.3.4 Proposed ERP for Albania

The table below summarises a number of approaches and up-to-date studies estimating the ERP.

	Average ERP	Time series	Approach
IRG Maximum: Spain	6.2%	N/A	Benchmark
Damodaran S&P 500	6.0%	1928-2009	Historic
IRG Median: France	5.0%	N/A	Benchmark
DMS Global	4.7%	1900-2009	Historic
CFO Survey 2009	4.7%	2009	Survey
Damodaran current implied S&P 500	4.6%	01-Feb-10	Implied
Adjusted DMS Global	4.1%	1900-2009	Historic
Merrill Lynch Survey 2009	3.8%	2009	Survey
IRG Minimum: Denmark	3.8%	N/A	Benchmark

Source: ICC compilation

For this study we recommend using the adjusted historic ERP value proposed by DMS. It adjusts historical data to be more forward looking. We believe the adjusted DMS approach to be superior to the survey-based and the implied approaches because it is less sensitive to immediate market sentiment. We prefer the adjusted DMS ERP to any benchmark-based approach as it is both more transparent and up-to-date.

[4] Dimson, E. , Marsh, P and M. Staunton, The Worldwide Equity Premium: A Smaller Puzzle

3.4 Country risk - Equity

As spreads of Albanian government bonds over Euro area bonds suggest, there is a significant country risk to investing in Albania. To estimate the country risk of Albania we have looked at its country rating and the default spread it implies over a risk-free bond. At this point, the country risk refers to an investment in equity. As equity markets are more volatile and thus riskier than bond markets, Prof. Damodaran adjusts the default spread by the ratio of standard deviations of equity and bond returns.

Country	Long-Term Rating	Adj. Default Spread	ST.DEV Equity / ST.DEV Bonds	Country Risk Premium Equity
Albania	B1	450	1.50	6.75%

Source: A. Damodaran, January 2010 based on Moody's ratings

We propose using 6.75% country risk premium to calculate the expected return on equity.

3.5 Expected return on equity for an Albanian mobile operator

The table below summarises all values we have proposed to estimate the expected return on equity.

Section	Item	Proposed Value
3.1	Risk-free rate	5.7%
3.2	Equity beta	1.06
3.2.1	Asset beta	0.83
3.2.2	Market value of debt / Firm value	23.9%
3.2.2	Market value of equity / Firm value	76.1%
3.2.3	Effective corporate tax rate	10.0%
3.3	Equity risk premium	4.1%
3.4	Country risk - equity	6.8%
3.4	RF Rate country risk	4.5%
3.4	Lambda country risk (STDEV EQ/STDEVBONDS)	1.50
3.5	Expected return on equity - Nominal, pre-tax	19.2%

Using the assumptions proposed in this chapter and using the adjusted CAPM, the expected return on equity, in nominal and pre-tax terms, is 19.2%.

4. Cost of debt

The cost of debt in a forward-looking study represents the cost or interest of borrowing new funds. It is a function of the default risk that lenders perceive in the firm as well as a reference rate reflecting both the risk free rate and the country risk.

As previously mentioned, this study is concerned with pre-tax cash-flows. Therefore the pre tax cost of debt can be estimated as follows:

Rd = RR + DRP

Notes:
RR – Reference Rate, i.e. the yield of Albanian government bonds
DRP – Debt Risk Premium

The reference rate may be estimated as the sum of the risk-free rate and the country default spread as implied by the sovereign debt rating. However, we have opted for a more direct method, obtaining the reference rate using the yield of Albanian government bonds. Both methods provide similar results.

A further variable that influences the cost of debt is the level of financial gearing, which is expressed as the amount of debt over the sum of market values of debt and equity. The level of gearing is not only used to weight cost of debt and cost of equity, but it also influences the debt risk premium. From a certain level of gearing onwards, the risk of default is perceived to increase and therefore the debt risk premium.

In the subsequent sections of this chapter we discuss the three aforementioned variables and the values we propose for them.

4.1 Reference rate

The reference cost of debt rate is defined as the risk-free rate plus the country risk incurred for investing in government bonds. There are two different ways to estimate the reference rate. The most direct one is to observe the yields of long-term government bonds. Alternatively, we can calculate the reference rate by adding the Albanian country risk premium - as implied by a rating agency – to the risk-free rate for Albania. Both methods should yield similar results.

4.1.1 Albanian government bond yields

As previously explained, we recommend using long-term securities as the basis for this WACC estimate. This is to align the WACC with the period over which cash-flows are generated, i.e. the lifetime of the modelled business.

Albanian Government Bond Yields		
	2-year	5-year
2007	8.30%	9.80%
2008	8.40%	9.25%
2009	9.24%	10.42%
2010	9.20%	N/A
Average	8.78%	9.82%

Source: Bank of Albania

We have looked at the past 4 years to detect anomalies. Average bond yields show a very small standard deviation, indicating that an average figure does not include any anomalies. We have also shown 2-year government bond yields in the above table to provide an indication of the slope of the yield curve, which is slightly ascending. This suggests that 10-year bonds would likely yield slightly more than 9.8% if they were auctioned.

4.1.2 Analytical reference rate estimate

The reference rate may be computed as the sum of the Albanian risk-free rate and the country risk to government bond investors, i.e. the default spread. According to Prof. Damopdaran, who has analysed Moody's rating for Albania and typical sovereign debt default spreads implied by a rating, the Albanian country risk to long-term government bond investors is 450 basis points or 4.5%.

As shown in chapter 3.1 above, we have estimated a risk-free rate for Albania of 5.74%. The reference rate for the calculation of the cost of debt is therefore equal to:

Reference rate Rd = 4.5% + 5.74% = 10.24%

4.1.3 Proposed reference rate

We suggest using **10.24%** as reference rate, which is consistent with historical government bond yields.

4.2 Debt risk premium

Investors typically expect a debt risk premium to invest in corporate bonds instead of government bonds. The debt risk premium is strongly influenced by the level of gearing and should therefore be consistent with it. We have assumed a level of gearing which is slightly below the IRG average. On the other hand, the IRG debt premia have been estimated prior to 2008, when debt risk premia were somewhat lower than nowadays.

Country	DRP
Netherlands	2.3%
Malta	2.3%
Belgium	2.0%
Greece	2.0%
Iceland	2.0%
Italy	1.6%
Finland	1.5%
Sweden	1.5%
UK	1.5%
Germany	1.1%
France	1.0%
Austria	1.0%
Czech Republic	0.8%
IRG Average	1.6%

Source: Bank of Albania

A recently issued Vodafone bond is trading at 1.78% above the risk free rate. This confirms our view that market conditions have toughened and lead us to propose a debt risk premium of **1.7%**, which is slightly higher than the IRG average.

4.3 Expected return on debt for an Albanian mobile operator

As previously explained, the expected nominal, pre-tax return of debt is the sum of the reference rate and the corporate debt risk premium. Using the proposed values, the resulting return on debt is:

Rd = 10.24% + 1.7% = **11.94%**

5. Proposed WACC

On the basis of the proposed WACC parameters and the WACC and CAPM formulae, we have estimated that the pre-tax, nominal WACC for a hypothetical Mobile operator in Albania is 17.5% as per May 2010.

Section	Item	Proposed Value
3.1	Risk-free rate	5.7%
3.2	Equity beta	1.06
3.2.1	Asset beta	0.83
3.2.2	Market value of debt / Firm value	23.9%
3.2.2	Market value of equity / Firm value	76.1%
3.2.3	Effective corporate tax rate	10.0%
3.3	Equity risk premium	4.1%
3.4	Country risk premium - equity	6.8%
3.4	Country risk premium - sovereign debt	4.5%
3.4	Lambda country risk (STDEV EQ/STDEVBONDS)	1.50
3.5	Expected return on equity - Nominal, pre-tax	19.2%

3.1	Risk-free rate	5.7%
3.4	Country risk premium - sovereign debt	4.5%
4.2	Corporate debt risk premium	1.7%
4.3	Expected return on debt - Nominal, pre-tax	11.9%

3.2.2	Market value of equity / Firm value	76.1%
3.2.2	Market value of debt / Firm value	23.9%
5.	WACC, nominal, pre-tax	17.5%