

RESEARCH REPORT

STRATEGY

NOVEMBER
2021

Q1

Q2

Q3

Q4

| MOROCCO | QUARTERLY AGR Equity Risk Premium

AN **UPWARD** ADJUSTMENT OF THE **RISK PREMIUM**

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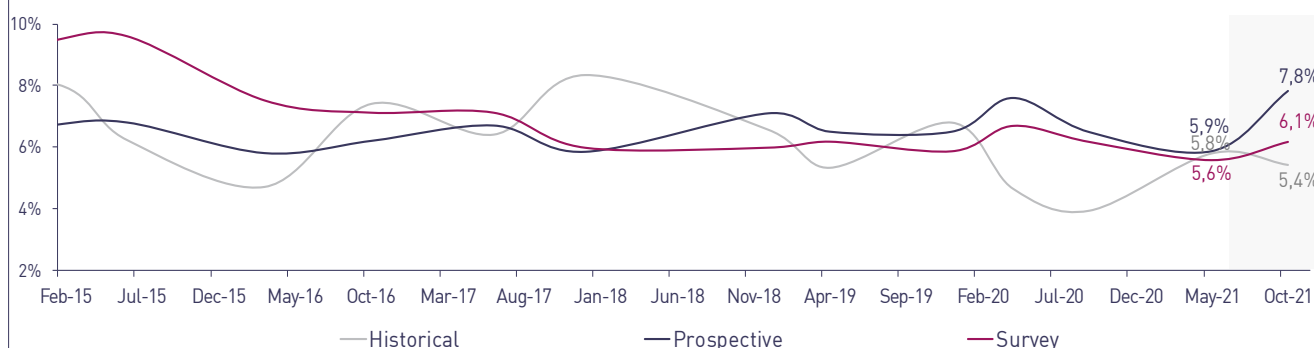
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EXECUTIVE SUMMARY - OCTOBER 2021

The results of the various methods computed in this 19th edition are as follows :

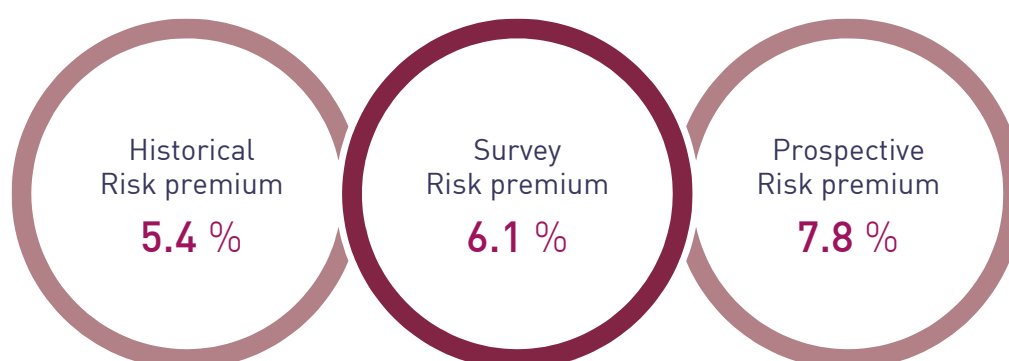
- The **historical risk premium** posted a decrease of 0.4 pt, from 5.8% in May 2021 to **5.4%** in October 2021. This level is justified by the readjustment of the average market's gross return over the last 15 years, from 10.5% to 10.1%. At the same time, the average yield of Treasury Bills remains stable at 4.7%;
- The **prospective risk premium** reached **7.8%** in October 2021, up 1.9 pts compared to May 2021. This result takes into account the new post-Covid earnings growth forecasts of listed companies over the period 2021E-2023E. According to our estimates, the AAGR of listed companies' recurring profits would settle at 5.0% over this period. Beyond this period, and by 2031E, the target growth rate is around 3.0% per year justified by the mature profile of . This is equivalent to the long-term GDP growth level of large caps.
- The **risk premium by the survey method** showed an increase of 0.5 pt, from 5.6% in May 2021 to **6.1%** in October 2021. We note that the annual Investors' required return toward the Equity market increased at 8.5% for a 5-year investment.

« EQUITY RISK PREMIUM » IN THE MOROCCAN STOCK MARKET : RESULTS ACCORDING TO THE DIFFERENT METHODS



A REALISTIC CHOICE IN FAVOUR OF THE « SURVEY METHOD »

Upon the analysis of the various results and on the basis of our own vision, we maintain our choice in favour of the **survey method**. We believe this method best reflects the expectations of active investors in the Moroccan Equity market and therefor remains the most relevant.



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Source : AGR Computations & Survey

HISTORICAL RISK PREMIUM

APPROACH / METHODOLOGY

This method is based on the following assumption: « For a future investment, investor will require a reward at least equivalent to the one historically observed on the market ». Based on historical data, the principle of this process consists of determining the average gross return of the stock market's index and that of the sovereign bonds, i.e. the risk free. The risk premium is then deducted from the average spread between the two yields.

COMPUTATION

Based on available data, we have calculated the historical annual gross return of the MASI index (including dividend) and the Treasury Bills over a historical period of 10 years. For a coherence challenge, the period studied for this edition is 15 years.

On the basis of the arithmetical average method and the annual average growth rate method (AAGR), we come up with the following results:

HISTORICAL RISK PREMIUM ACCORDING TO THE DIFFERENT METHODS :

15-year Gross return	MASI Index	Treasury Bills Morocco	Risk premium
Arithmetic average	13.7%	4.8%	8.9%
AAGR	10.1%	4.7%	5.4%

The arithmetic average method implies historical profitability largely above the AAGR method. This gap is mainly due to the high degree of sensitivity to extreme values of the arithmetic method. Recall that the Moroccan Equity market was characterized by extensively bullish cycles. On the other hand, the AAGR shows more modest profitability. Indeed, it allows to smooth out the extreme variations during the cycle by integrating into the calculation solely the initial and the final values.

Finally, our historical Equity Risk Premium calculated according to the AAGR method settles at 5.4%.

ANALYSIS

We believe that the historical Equity Risk Premium is less relevant for the Moroccan market. In fact, to serve as a reliable indicator, the Equity Risk Premium must be observed over a long period, in statistical terms over a minimum of 30 years. The aim is to normalize stock market yields like in developed countries which have an array of data covering nearly an entire century. As a young financial market, the Casablanca Stock Exchange market doesn't reflect this case.

PROSPECTIVE RISK PREMIUM

APPROACH / METHODOLOGY

In the theory of efficient markets, an asset's valuation level asset reflects all the information available to the market at a particular time. By projecting this assumption on the market as a global entity, it is possible to consider that the market's valuation at a given time is the translation of investor expectations toward the discounted future cash-flows of listed companies.

For this purpose, the calculation of the prospective Equity Risk Premium is based on the market's profits outlook. Indeed, the rate level of the future earnings growth which allows to equalize the current market capitalization is equivalent to the required shareholders' return. By deducting the cost of money over the same period, we come up with a prospective Equity Risk Premium. Recall that we consider a beta of 1.0 for the market.

COMPUTATION

For listed companies on the Casablanca Stock Exchange, we take into consideration for the period 2021E-2023E an AAGR of the recurring earnings of 5.0%. Beyond this date, and by 2031E, we retain an AAGR of 3.0% which takes into account the growing maturity of large caps whose long-term growth should be aligned with that of GDP.

Infinitely, we opt for the target level of inflation for the Moroccan economy, namely 2.0%. Finally, we used a risk-free rate (10-year BDT) of 2.4% observed at the date of this study.

For this reason, our prospective Equity Risk Premium based on the assumptions hereafter comes to 7.8%.

AAGR Profits 21E-23E	AAGR Profits 24E-31E	Infinite Growth	Risk Free Rate	Beta	Ke	Equity Risk Premium
5.0%	3.0%	2.0%	2.4%	1.0	10.2%	7.8%

ANALYSIS

The results of the method remain closely linked to our main growth assumptions. This applies more particularly to the perpetual profit growth (g). Although the fact that we are quite comfortable with the short term forecasts, the long term assumptions appear to be more arbitrary than any outright scientific method.

As opposed to developed markets which have reached a certain level of maturity (by posting for example normative growth rates in terms of dividend), the Moroccan market is far from this case. In fact, the short degree of hindsight of the Moroccan market doesn't allow us to build a reliable forecast model on the long term. This reduces even more the relevance of this method for the case of Morocco.

RISK PREMIUM BY SURVEY METHOD

APPROACH / METHODOLOGY

This approach aims to identify the annual return required by investors toward an investment superior to 5 years in the Equity market. For this purpose, a questionnaire is sent quarterly to a representative and statistically valid sample of investors.

ADJUSTMENT OF METHOD

The methodological adjustments operated frequently are the following:

- A variation of weights which goes along with the current breakdown of transaction volumes on the central market by the different investor profiles;
- An adjustment of the required return intervals which joined the Equity market performance over the past decade. Starting from December 2017 edition, the required return intervals proposed to investors are : [13% ; 14%], [11% ; 12%], [9% ; 10%], [7% ; 8%] and [5% ; 6%].

COMPUTATION

To compute a risk premium of the Moroccan Equity market we have identified four major categories of investors : **(1)** Institutional/UCITS, **(2)** Reference Actors, **(3)** Individuals and **(4)** Foreign investors. Each category has a different weighting depending on several criteria: its intervention level, influence on the market and our own vision. The category of "Reference Actors" includes investors with a deep knowledge of the Moroccan market allowing them to evaluate faithfully a realistic risk premium. For this purpose, we have applied a weight of 20.0 % for this category.

On the basis of the survey method, the Equity Risk Premium comes to **6.1%**. This method corresponds to the weighted average of risk premiums calculated for each investor category.

SURVEY METHOD: RISK PREMIUM PER INVESTOR CATEGORY

	Weighting	Required Return	Risk Free	Risk Premium
Institutional/MF/Banks	50.0%	9.8%	2.4%	7.4%
Reference actors	20.0%	7.9%	2.4%	5.5%
Individuals	10.0%	6.7%	2.4%	4.3%
Foreign investors	20.0%	7.1%	2.4%	4.7%
Equity Market	100%	8.5%	2.4%	6.1%

ANALYSIS

We believe that the survey approach appears to be the best adapted to the Moroccan market as it entails a consensus of the various actors. Moreover, it takes into account the several qualitative aspects neglected by the other methods. We note for example:

- The impact of the local and international context on the risk aversion of investors operating in the financial market;
- A context of historically low interest rates that has persisted since 2015;
- The lack of investment opportunities at the domestic level.

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