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Equity Market Risk Premium (EMRP) on the Finnish stock market

Study
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Summary

Based on our survey, the market risk premium on the Finnish equity market in Spring 2015 is 5.8 percent. The average market risk premium expectation has stayed at basically the same level as in our previous study (2012: 6.0%). Similarly, the median of risk premium expectations, at 5.5 percent, stayed at the same level as in 2012.

PwC has conducted surveys of the equity market risk premium on Finnish stock market since 1999. The previous survey was conducted in 2012. The surveys are carried out by sending questionnaires to brokerage firms, asset management companies, private equity companies, insurance companies and other professional firms and institutions. This year's questionnaire inquired about the following questions:

1. Estimate of the EMRP in Finland
2. Estimate of how the EMRP in Finland has changed during the last two years and the reasons for the change
3. Source for the risk-free rate
4. Impact on the required return for low liquidity stocks compared to the return on the Finnish stock market
5. Estimate of the length of the attractive period for public listings (IPO Window). In other words, how will the stock market in Finland continue to attract new IPO's?
6. The effect of the new Finnish government on the stock market during the 100 first days in office.

Roughly one third (30%) of the respondents thought that the market risk premium has risen during the last two years. Reasons mentioned as causing the rise were negative interest rates, volatility of the stock market and the monetary policy of the European Central Bank. 35 percent of the respondents thought that the market risk premium has remained unchanged during the last two years, and the remaining 35 percent thought that the market risk premium has risen.

Nearly all the respondents demand a higher rate of return for illiquid stocks. Nearly half of the respondents (45%) said they demand an additional risk premium (on average 3.2%). One third of the respondents lower the valuation of the shares by an average of 24 percent (2012: 24%).

The attractive period for public listings, i.e. the "IPO Window", was estimated to remain open for no more than three years. Half of the respondents thought that the IPO Window will stay open for one year, and 40 percent of the respondents thought that the window will stay open for one to three years. According to the respondents the best parties in the government, based on their positive effect on the stock market, is a right-wing government including at least the Centre Party and the National Coalition Party.

The questionnaires for this year's survey were sent in April and May 2015 and response time was given until end of May. The survey was conducted in English in order to facilitate comparability with foreign studies. A total of 20 responses were obtained giving a response rate of 42 percent.

The average market risk premium expectation has stayed at basically the same level as in our previous study 2012.

Equity Market Risk Premium (EMRP) on the Finnish stock market

Research methodology

The stock market risk premium level can be estimated either on an ex post or ex ante basis. When measuring the market risk premium ex post, the stock market long-term actual return is compared to a risk-free investment's actual return. Ex ante market risk premium studies in turn measure market participants' expectations of the stock market yield over the risk-free interest rate.

PwC conducts ex ante studies in several countries. The studies are carried out by sending a questionnaire to key actors in the stock market in that country. In Finland, the first survey was conducted in 1999. The market risk premium varies depending on the research method and the market conditions. For these reasons, among others, the results of this study should not be interpreted as PwC's general view of the market risk premium.

EMRP study results

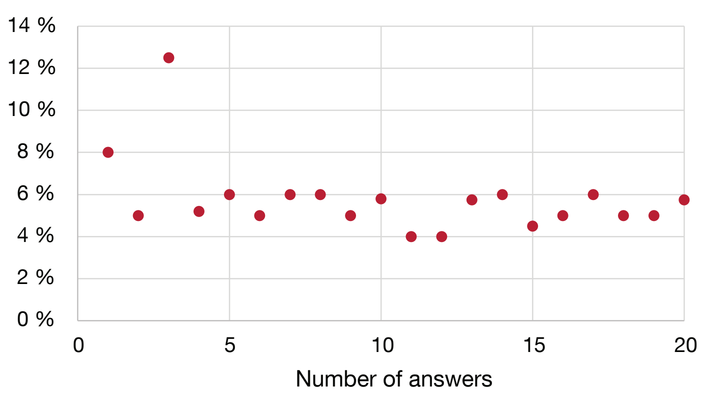
The participants in the study were asked to provide their expectations of the market risk premium on the Finnish stock market. The average market risk premium expectation was 5.8 percent (2012: 6.0%). The median of the expectations was 5.5 percent (2012: 5.5%). Deviations between the respondents' market risk premium estimates were small, they ranged from 4.0 to 12.5 percent with a standard deviation of 1.8 percent (2012: 1.8%).As can be seen in the figure below, the majority of the market risk premium expectations were between 4.0 percent and 6.0 percent.

Compared to the previous study, which was conducted in 2012, the market risk premium has stayed at basically the same level. The standard deviation of the market risk premium estimates was very close to the previous level at 1.8 percent (2012: 1.8%).

In addition to the market risk premium estimates, the respondents were asked whether their views had changed over the past two years, and what factors had contributed to this. The options given to the respondents were a long-term rise of the stock market, the European Central Bank's monetary policy, negative interest rates or a self-defined reason.

According to six respondents (30%), the market risk premium has risen during the last two years. These respondents explained the change with the long-term rise of the stock market (three respondents) and the European Central Bank's monetary policy (three respondents). Seven of the respondents (35%) said that the market risk premium has remained unchanged while also seven (35%) respondents thought that the market risk premium had fallen. Reasons for the fall in the market risk premium were the long-term rise of the stock market, the European Central Bank's monetary policy and negative interest rates. The answers regarding the change in the market risk premium tells us that there is confusion regarding the direction of the markets.

Equity Market Risk Premium expectations

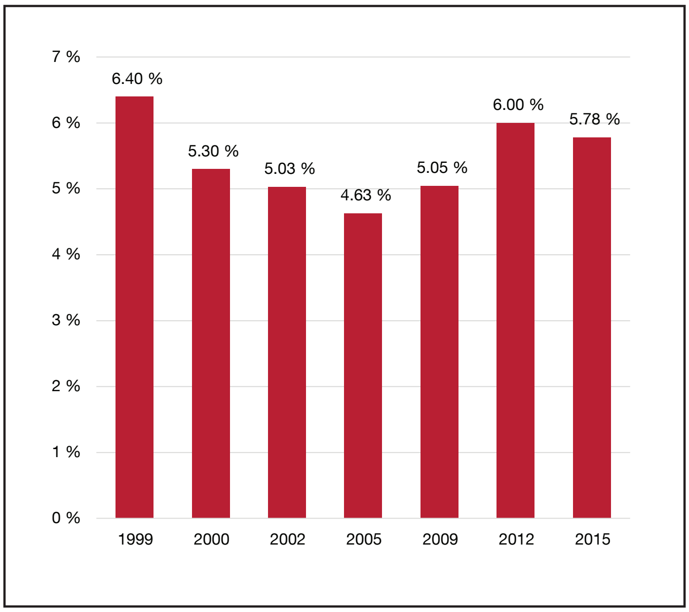


[1] Research conducted by Professor Aswath Damodaran (Stern School of Business) are commonly used as a source for the equity market risk premium. Damodaran primarily concentrates his research on the stock market in the United States, and in his estimate from January 2015 for the equity market risk premium was 5.75 percent.

Equity market risk premium			
	2009	2012	2015
Mean	5.05%	6.00%	5.78%
Median	4.63%	5.50%	5.48%
Standard deviation	0.95%	1.78%	1.81%
Number of answers	16	17	20

Most of the respondents (70%) use the Finnish long term government bond as source for the risk-free interest rate for Finnish stocks. Another frequently used source was the German long term government bond. Other sources mentioned were for the five year EURO-swap and the 12 month euribor rate.

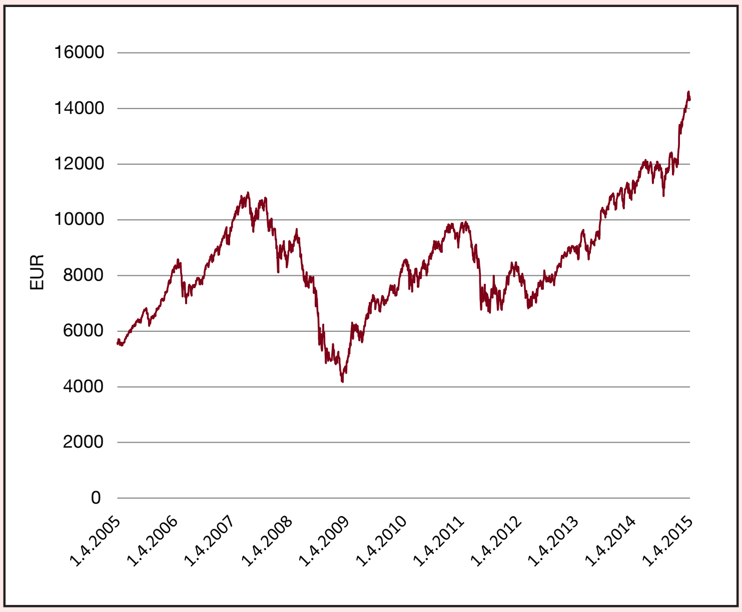
The development of the EMRP (average)



Ex post EMRP on Helsinki stock exchange

The value of the OMX Helsinki Cap GI index at the beginning of April 2005 stood at 5.572 €. Exactly ten years later (beginning of April 2015), the index had risen to 14.297 €. This equals to an overall increase of 156.6 percent, which corresponds to an annual growth of roughly 9.9 percent. The yield of the Finnish 10-year government bond was 3.6 percent as of the beginning of April 2005. In other words, the realized ex post market risk premium over the past ten years on the Finnish stock market was about 6.3 percent, which is slightly higher than the estimates of the respondents from the study in 2005 (4.6%).

The development of OMX Helsinki Cap GI, April 2005 - April 2015



Non-liquid stocks' additional risk premium

The respondents were also asked if they require a higher return from stocks that are subject to low exchange or not subject to public exchange, i.e. non-liquid stocks. According to nearly all of the respondents, low liquidity of a stock has an upward impact on the rate of return requirement. Alternatively, some respondents lower the stock's market value by a certain percent. In cases where the respondents gave a range of values for the rate of return requirement or market value discount, only the average value was taken into account in the study.

Eighteen of the respondents (90%) either apply an additional risk premium or cuts the market value of the non-liquid investment object. Eight respondents reported that they demand an additional risk premium of on average 3.2 percent (2012: 6.5%). The answers ranged from 1.0 percent to 5.0 percent. Six respondents lower the market value of the investment object on average by 24 percent (2012: 24%). The answers ranged from 15 percent to 50 percent. Two of the respondents reported that they do not demand a higher return for non-liquid stocks.

The continued rise of the Finnish stock market and initial public offerings

During the 2000's the highest number of initial public offerings (IPO) in Finland were made in 2000 with 20 new listings. Since then, not a single year has seen ten listings on the Finnish stock exchange. Since the start of the economic downturn in late 2007, the two best IPO years have been 2013 and 2014 with 6 and 9 new listings, respectively. During the six first months of 2015 there have already been five listings on the Finnish stock exchange with almost certainly more to come during the last six months of 2015. This indicates that year 2015 will most probably be the year with most listings since 2007.

In the questionnaire we asked the respondents to estimate how long they think the "IPO window" will remain open on the Finnish stock market. Alternatives were given as 1 year, 1-3 years and over 3 years.

Exactly half of the respondents think that the IPO window will remain open for one year or less. 40 percent of the respondents think that the IPO window will remain open for one to three years. Based on the answers the majority of the respondents do not think that the Finnish stock market will continue to thrive and attract new public listings for more than three years.

Exactly half of the respondents think that the IPO window will remain open for one year or less.

The effect on the stock market during the 100 first days of the new Finnish government

The last question in the questionnaire asked the participants to estimate what effect the new government will have on the Finnish stock market during their first 100 days in office, depending on the parties forming the government. As alternatives the respondents were provided three setups of parties that at least might be in the new government: Centre Party & National Coalition Party, Centre Party & Finns Party and Centre Party & Social Democrats of Finland.

According to the answers the best parties in the government, based on their estimated positive effect on the stock market, are the Centre Party and the National Coalition Party (indicating a right-wing government). The second best alternative would be a government consisting of at least the Centre Party and the Finns Party. The least favorable combination of political parties in the government are the Centre Party and the Social Democrats of Finland.

Results from previous studies

We compared the results of this study to studies previously conducted by PwC Sweden and PwC Finland. In Finland, similar studies have been conducted in 1999, 2000, 2002, 2005, 2009, 2012 and now 2015. PwC Sweden has conducted surveys of the market risk premium on a regular basis since 1998.

Previous studies in Finland

Our study indicates that the average of the expectations of the market risk premium has remained at the same level as in 2012. As can be seen from the table below, the average expectation of the market risk premium has varied between 4.6 percent (2005) and 6.4 percent (1999). The average market risk premium of all the seven studies since 1999 is 5.5 percent.

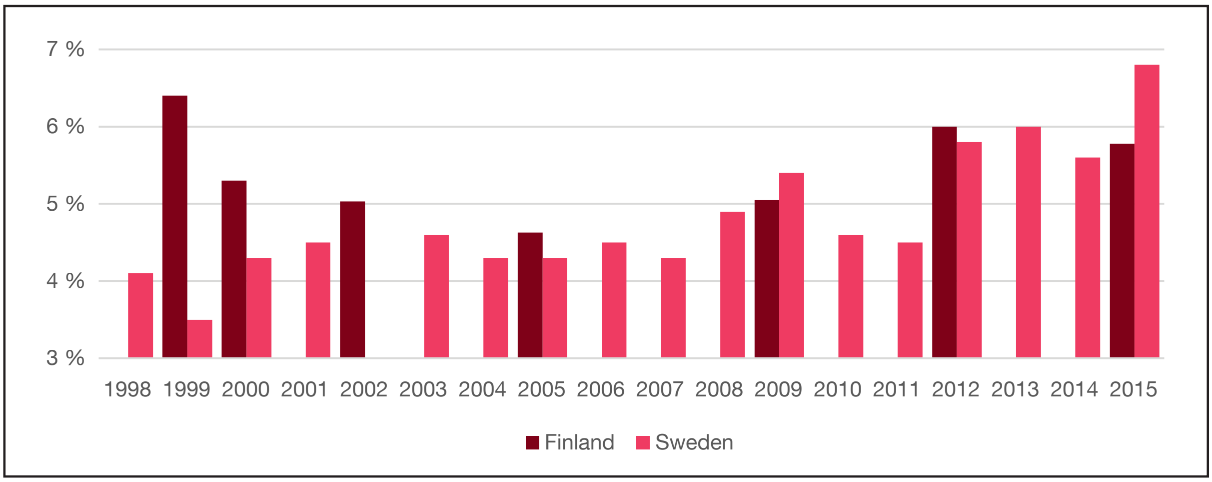
Previous studies in Sweden

The first study in Sweden was conducted in 1998 and the most recent in March 2015. In Sweden, the market risk premium has historically varied between 3.5 and 6.8 percent. The market risk premium was at its lowest level in late 1999 and peaked in the most recent study in early 2015. In this regard, the development of the market risk premium in Sweden was not entirely congruent with the results obtained from Finland: in Finland, the highest level was in 1999. Forecasts of the market risk premium in Sweden and Finland have however, in the newer studies become more aligned. The market risk premium expectations in both countries have remained rather similar to the results from the studies in 2012. In the most recent study from Sweden that was conducted in early 2015, the market risk premium expectations were at the all-time highest level (6.8%), while in Finland it was at its third highest level.

The equity market risk premium expectation in Finland is for the second time lower than it is in Sweden, but expectations for the two countries remain close to each other. This suggests that the Swedish and Finnish equity market risk exposure is among investors considered to be almost at the same level.

Equity market risk premium							
	1999	2000	2002	2005	2009	2012	2015
Mean	6.40%	5.30%	5.03%	4.63%	5.05%	6.00%	5.78%
Median	5.00%	4.00%	5.00%	4.00%	4.63%	5.50%	5.48%
Most popular answer	6.00%	4.00%	5.00%	4.00%	4.50%	5.00%	5.00%
Standard deviation	1.50%	1.83%	0.97%	2.23%	0.95%	1.78%	1.81%

Market risk premium 1998 - 2015, Finland and Sweden



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