

Market Risk Premium used in 2010 by Analysts and Companies: a survey with 2,400 answers

Pablo Fernandez

Professor of Corporate Finance. IESE Business School.

e-mail: fernandezpa@iese.edu

Web: <http://webprofesores.iese.edu/PabloFernandez//>

Javier del Campo

Research Assistant. IESE Business School.

e-mail: javierdelcampo@iese.edu

ABSTRACT

The average MRP used by analysts in the USA and Canada (5.1%) was similar to the one used by their colleagues in Europe (5.0%), and UK (5.2%). But the average MRP used by companies in the USA and Canada (5.3%) was smaller than the one used by companies in Europe (5.7%), and UK (5.6%).

The dispersion of the MRP used was high, but lower than the one of the professors: the average range of MRP used by analysts (companies) for the same country was 5.7% (4.1%) and the average standard deviation was 1.7% (1.2%). These statistics were 7.4% and 2.4% for the professors.

Most previous surveys have been interested in the Expected MRP, but this survey asks about the Required MRP. The paper also contains the references that analysts and companies use to justify their MRP, and comments from 89 respondents that illustrate the various interpretations of what is the required MRP.

JEL Classification: G12, G31, M21

Keywords: market risk premium; required equity premium; expected equity premium; historical equity premium

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I sent a short email (see exhibit 1) on April 2010 to about 8,500 email addresses of analysts and managers of companies obtained from previous correspondence, papers and webs. I asked about the Market Risk Premium (MRP) "used to calculate the required return to equity" in 2010 and in 2009. I also asked about "Books or articles that I use to support this number".

By May 10, 2010, I had received 2,460 responses: 711 from analysts and 1,749 from other companies¹. Of these answers, 601 analysts and 901 companies provided a specific MRP used in 2010.

1. Market Risk Premium (MRP) used in 2010 by analysts

Table 1. MRP used by analysts in 2010: 711 answers

	USA & Canada	Europe	UK	Other	Sum
Answers reported	107	197	31	266	601
Do not provide a figure: "My MRP changes weekly" or "monthly"	40	31	19	3	93
"It is confidential"	7	8	2		17

Euro: Austria, Belgium, Croatia, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Slovenia, Spain, Sweden and Switzerland
Other: Argentina, Australia, Brazil, Chile, China, Colombia, Czech Republic, Dubai, Egypt, Hong Kong, Hungary, India, Indonesia, Iran, Israel, Japan, Kazakhstan, Kuwait, Malaysia, Mexico, New Zealand, Pakistan, Peru, Poland, Qatar, R.Dominicana, Romania, Russia, Saudi Arabia, Singapore, South Africa, South Korea, Sri Lanka, Taiwan, Thailand, Turkey, UA Emirates, Ukraine, Uruguay, Venezuela and Vietnam

Table 2 contains the statistics of the MRP used in 2010. It is worth mentioning that the average MRP used by analysts in the USA and Canada (5.1%) was similar to the one used by their colleagues in Europe (5.0%), and UK (5.2%).²

Figure 1 is a graphic representation of the 601 MRPs considered in table 2.

Table 2. Market Risk Premium used in 2010 by 601 analysts

	USA & Canada	Euro	UK	Other	Sum	
MRP used in 2010	Average	5.1	5.0	5.2	6.3	601
	St. dev.	1.1	1.3	1.4	2.2	
	MAX	10.0	11.9	10.0	25.0	
	Q3	5.5	5.5	5.7	7.0	
	Median	5.0	5.0	4.5	5.9	
	Q1	4.5	4.0	4.0	5.0	
	min	2.5	3.0	3.5	0.7	
	Number	104	197	31	269	

Justify the number*:

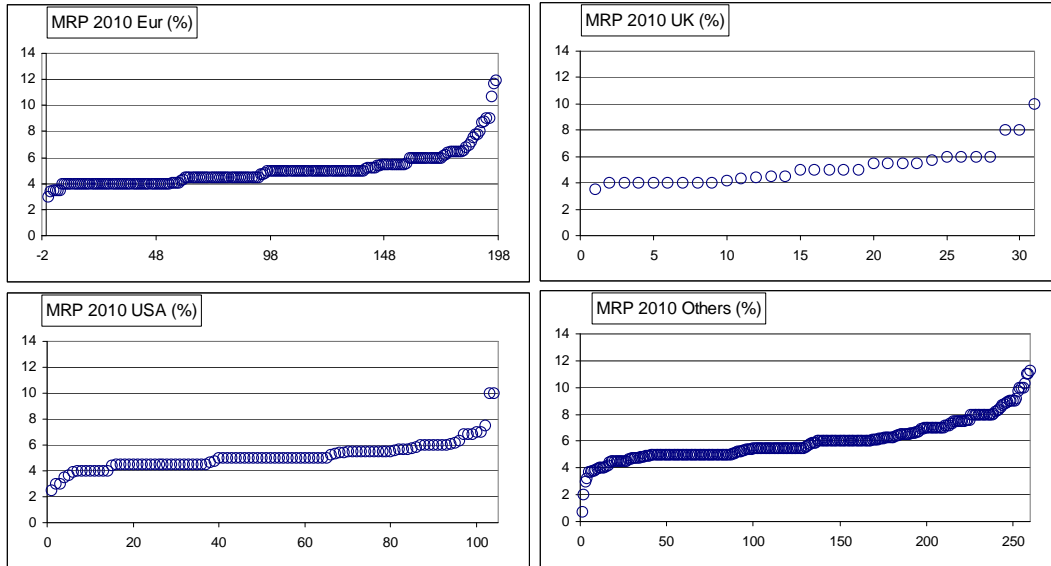
Own research/calculations	24	70	5	96	195
I do not justify the number / do not answer	33	64	13	55	165
Reference to books or articles	33	40	8	69	150
Historic Data	12	19	3	49	83
Other analysts	2	2	0	3	7
Experience, subjective, own judgement	8	9	1	17	35

* Some respondents provided more than one answer

¹ I also received answers from 1,511 professors. I analyse them in the separate document. "Market Risk Premium Used in 2010 by Professors: a Survey with 1,500 Answers": <http://ssrn.com/abstract=1606563>

² 43 analysts provided a range with an average wide of 0.6%: I considered the medium point of the range.

Figure 1. Market Risk Premium used in 2010 by 601 analysts



2. MRP used by analysts in 2010 and in 2009

514 analysts indicated which MRP they used in 2009. **Figure 2** shows the difference between the MRP used in 2010 and the MRP used in 2009 for each one of the respondents

- 1 32% of the analysts decreased the MRP in 2010 (-1% on average)
- 2 57% used the same MRP, and
- 3 11% increased it (1.3% on average).

Figure 2. [MRP used in 2010] - [MRP used in 2009] by 601 analysts

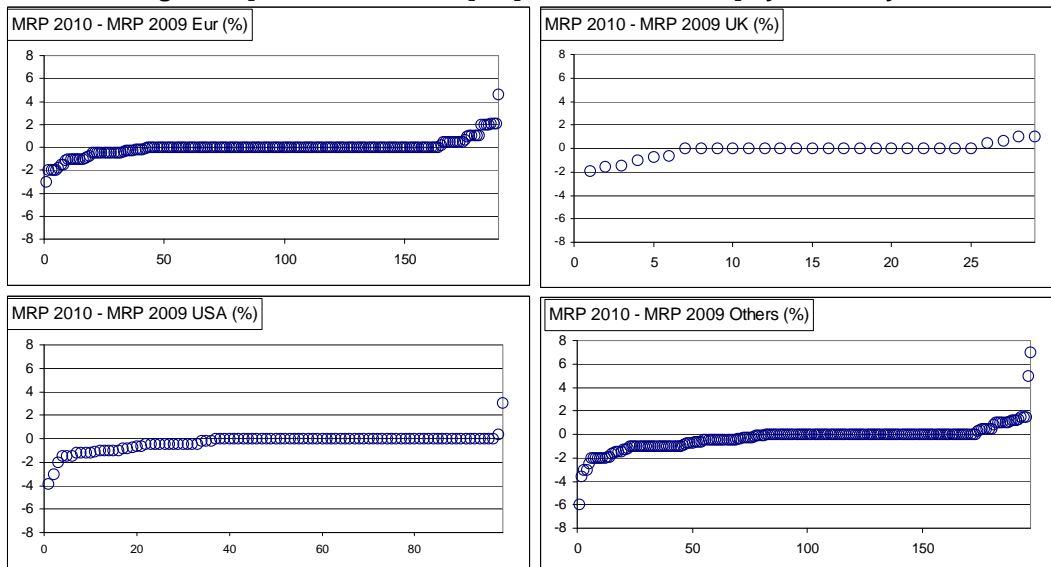


Table 3 contains the main statistics of the difference [MRP used in 2010] - [MRP used in 2009].

Table 3. [MRP used in 2010] - [MRP used in 2009] by analysts

		USA & Canada	Euro	UK	Other	All
MRP used in 2010 - MRP used in 2009	Average	-0,3	0,0	-0,1	-0,3	-0,2
	St. dev.	0.7	0.7	0.7	1.1	0.9
	MAX	3.0	4.6	1.0	7.0	7.0
	Median	0.0	0.0	0.0	0.0	0.0
	min	-3.9	-3.0	-2.0	-6.0	-6.0
	Number	99	189	29	197	514
	< 0	36	42	6	82	166
	= 0	61	122	19	91	293
> 0	2	25	4	24	55	

3. MRP used by analysts in 2010: a closer look by country

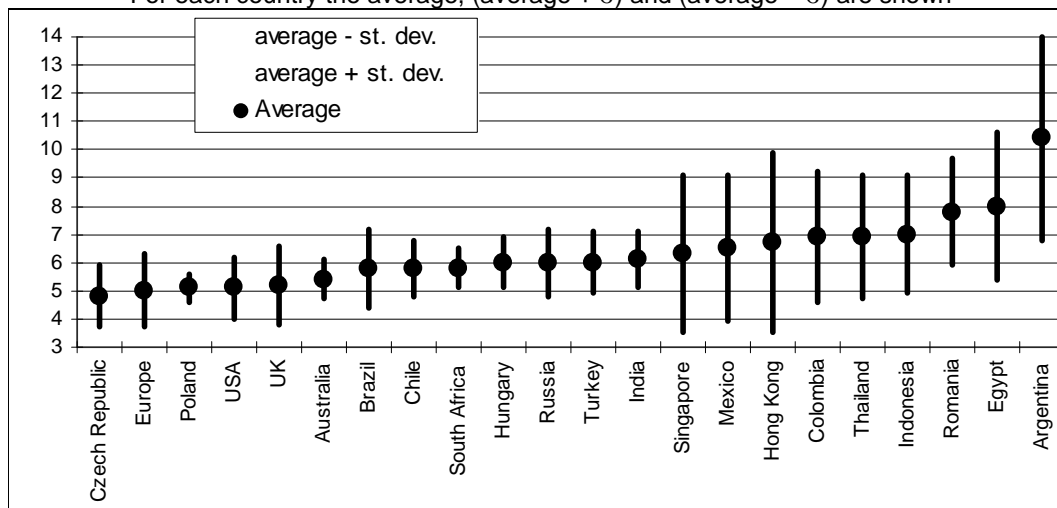
Table 4 contains the statistics by country of the MRP used in 2010. We only report statistics for the 22 countries with 5 or more answers. The average MRP used by analysts in the USA (5.12%) was higher than the one used by their colleagues in any European country.

Figure 4 is a graphic representation of the results of table 4.

Table 4. Market Risk Premium used in 2010 by analysts of 22 different countries

	Average	St. dev.	MAX	Q3	Median	Q1	min	Number of analysts
Argentina	10.4	3.6	14.5	14.0	8.6	8.0	6.4	5
Australia	5.4	0.7	6.0	6.0	5.5	5.0	4.1	7
Brazil	5.8	1.4	10.0	6.0	5.6	5.3	2.0	36
Colombia	6.9	2.3	12.0	7.3	6.4	5.7	4.5	8
Czech Republic	4.8	1.1	6.0	5.5	4.8	5.5	3.0	6
Chile	5.8	1.0	8.0	6.2	5.8	5.1	3.8	14
Egypt	8.0	2.6	13.7	8.2	8.0	6.4	5.4	8
Europe	5.0	1.3	11.9	5.5	5.0	4.0	3.0	197
Hong Kong	6.7	3.2	12.5	9.0	5.0	4.2	3.7	9
Hungary	6.0	0.9	7.5	6.3	5.5	5.5	5.3	5
India	6.1	1.0	7.5	7.0	6.0	5.2	5.0	10
Indonesia	7.0	2.1	11.0	8.0	6.2	5.4	5.0	7
Mexico	6.5	2.6	15.0	7.3	5.5	5.0	3.7	20
Poland	5.1	0.5	6.5	5.4	5.0	4.8	4.5	18
Romania	7.8	1.9	10.0	8.8	7.6	7.2	5.0	5
Russia	6.0	1.2	8.9	6.5	5.5	5.0	5.0	11
Singapore	6.3	2.8	10.3	8.0	4.6	4.4	3.9	5
South Africa	5.8	0.7	7.3	6.0	6.0	5.0	4.9	13
Thailand	6.9	2.2	12.0	7.5	6.4	5.0	4.9	13
Turkey	6.0	1.1	8.3	6.6	6.0	5.0	4.5	21
UK	5.2	1.4	10.0	5.7	5.0	4.1	3.5	31
USA	5.1	1.1	10.0	5.5	5.0	4.5	2.5	104
Grand Total	5.6	1.9	25.0	6.0	5.0	4.5	0.7	601

Figure 4. MRP used in 2010 by analysts for different countries
 For each country the average, (average + σ) and (average - σ) are shown



4. Market Risk Premium (MRP) used in 2010 by companies

Table 5. MRP used in 2010 by companies: 1,749 answers

	USA	Europe	UK	Other	Sum
Answers reported	205	543	30	123	901
Outliers	2	9			11
MRP is confidential	39	17	9	5	70
Companies that do NOT use MRP	153	405	65	144	767
<i>Use a minimum IRR</i>	48	75	42	107	
<i>Use a required return to equity</i>	7	12	3		
<i>Use other criteria</i>	4	11	2	5	
<i>"MRP is a concept that we do not use"</i>	54	307	18	32	

Euro: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden and Switzerland Other: Argentina, Australia, Barbados, Brazil, Chile, Colombia, Ecuador, India, Iran, Israel, Japan, Kazakhstan, Marocco, Mexico, New Zealand, Peru, Poland, Russia, South Africa, Turkey, Ukraine and Vietnam

Table 6 contains the statistics of the MRP used in 2010. **Figure 5** is a graphic representation of the 902 MRPs considered in Table 6.

Table 6. Market Risk Premium used in 2010 by companies

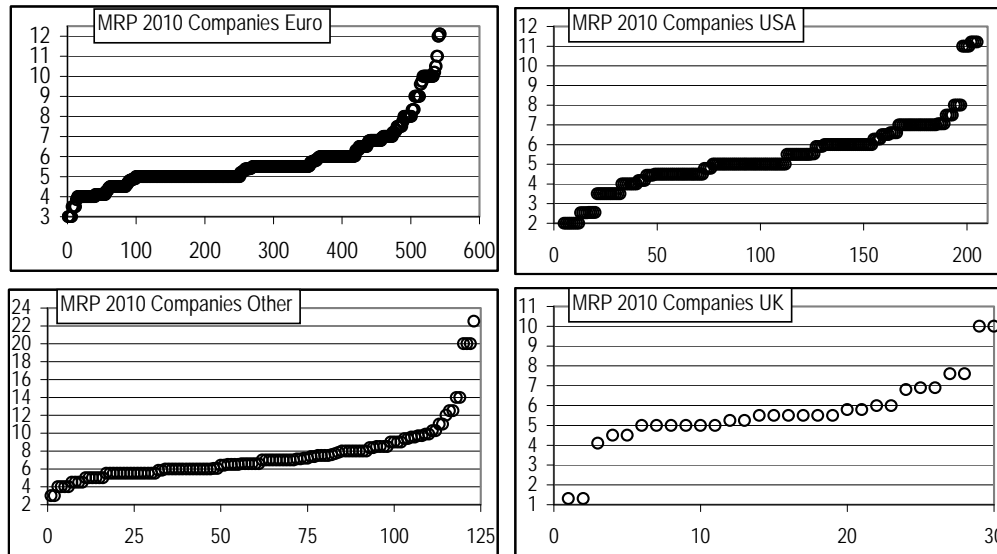
		USA	Euro	UK	Other	Sum
MRP used in 2010	Average	5.3	5.7	5.6	7.5	901
	Median	5.0	5.5	5.5	7.0	
	St. dev.	1.8	1.5	1.8	3.2	
	MAX	11.2	12.1	10.0	22.5	
	min	1.9	3.0	1.3	3.0	
	Number	205	543	30	123	

Justify the number*:

<i>Own research/calculations</i>	38	67	5	21	131
<i>I do not justify the number / do not answer</i>	40	154	5	34	233
<i>Reference to books or articles</i>	96	229	18	54	397
<i>Historic Data</i>	8	53	3	18	82
<i>Implied Market Risk Premium</i>	12	41	2	0	55
<i>Analyst reports</i>	3	46	0	2	51

* Some respondents provided more than one answer

Figure 5. Market Risk Premium used in 2010 by companies



5. MRP used by companies in 2010 and in 2009

845 companies indicated which MRP they used in 2009. **Figure 6** shows the difference between the MRP used in 2010 and the MRP used in 2009:

1. 32% of the companies decreased the MRP in 2010 (-1% on average)
2. 57% used the same MRP, and
3. 11% increased it (1.3% on average).

Figure 6. [MRP used in 2010] - [MRP used in 2009] by companies

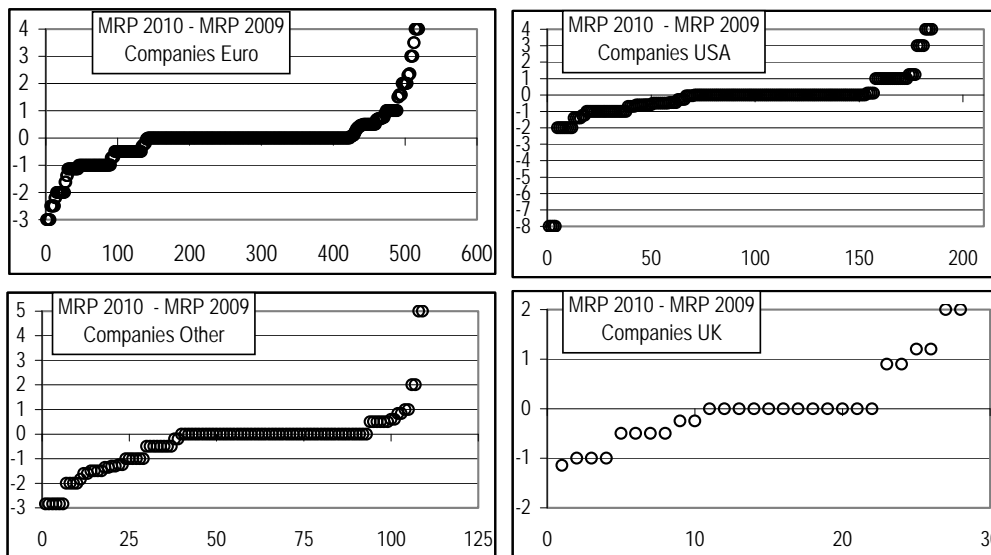


Table 7 contains the main statistics of the difference [MRP used in 2010] - [MRP used in 2009].

Table 7. [MRP used in 2010] - [MRP used in 2009] by companies

		USA	Euro	UK	Other	All
MRP used in 2010	Average	-0.13	-0.07	0.06	-0.30	-0.11
	St. dev.	1.7	1.0	0.8	1.2	1.2
	MAX	4.1	4.0	2.0	5.0	5.0
	Median	0.0	0.0	0.0	0.0	0.0
MRP used in 2009 (%)	min	-8.0	-3.0	-1.1	-2.8	-8.0
	Number	189	519	28	109	845
	< 0	70	141	10	39	260
	= 0	83	282	12	54	431
	> 0	36	96	6	16	154

6. References used by companies and analysts to justify the MRP figure

436 analysts and 639 companies indicated which books or papers they use as reference to justify the MRP that they use (127 of them provided more than a reference). **Table 8** contains the most cited references.

Table 8. References used by companies and analysts to justify the Market Risk Premium

	Companies					Analysts				
	USA	Euro	UK	Other	All	USA & Canada	Euro	UK	Other	All
Internal estimate	38	67	5	21	131	23	65	5	91	184
Damodaran	12	83	5	18	118	15	15	0	43	73
Morningstar/Ibbotson	40	32	8	10	90	10	9	3	10	32
Historic data	8	39	3	14	64	6	14	3	39	62
Implied MRP	12	41	2	0	55	1	5	0	5	11
Analysts / Other analysts	3	46	0	2	51	2	2	0	3	7
Mckinsey, Copeland	4	40	1	0	45	6	8	0	7	21
Fernandez	4	31	0	4	39	1	2	0	1	4
Experience, subjective, own judgement	12	14	0	8	34	5	7	1	14	27
Surveys, conversations,...	8	10	0	4	22	3	2	0	3	8
Brealy and Myers	8	14	0	0	22	0	0	0	2	2
Bloomberg	0	16	0	4	20	5	5	0	11	21
Dimson, Marsh and Staunton	4	8	4	0	16	3	3	2	1	9
CFA books	4	2	0	4	10	2	0	0	3	5
Fama and French (2002)	0	4	0	2	6	2	0	0	1	3
Grabowski / Pratt's and Grabowski	0	0	0	0	0	3	0	1	1	5
Mehra & Prescott	0	0	0	0	0	1	1	0	1	3
Other	19	37	11	7	74	8	16	6	19	49

7. MRP used by companies in 2010: a closer look by country

Table 9 contains the statistics by country of the MRP used in 2010. We only report statistics for the 26 countries with 5 or more answers.

Table 9. Market Risk Premium used in 2010 by companies in 26 different countries

	Aver	Std Dev	Median	Max	min	Count
Austria	5.3	0.7	5.3	6.8	4.1	10
Belgium	5.3	0.6	5.3	6.8	4.1	11
Brazil	7.3	1.9	6.8	9.7	4.5	12
Chile	7.4	3.1	6.5	14.0	4.0	14
Denmark	5.2	1.1	5.0	7.0	4.0	12
Finland	5.0	0.9	5.0	6.8	4.0	10
France	5.6	0.7	5.5	6.8	4.1	20
Germany	5.9	1.0	6.0	8.0	4.1	20
Greece	5.7	0.9	5.8	6.8	4.1	10
India	7.9	0.8	8.0	9.0	6.6	11
Ireland	5.5	0.8	5.5	6.8	4.1	8
Israel	5.9	1.1	5.9	7.0	4.5	7
Italy	5.8	1.4	5.3	9.6	4.1	22
Mexico	6.9	3.0	5.5	12.5	4.0	13
Netherlands	5.3	0.9	5.0	6.8	4.1	12
Norway	5.0	1.0	5.0	6.8	4.0	8
Peru	7.6	1.7	8.0	9.9	5.5	10
Poland	5.8	0.3	6.0	6.0	5.5	6
Portugal	5.4	0.7	5.5	6.8	4.1	9
South Africa	5.8	0.3	6.0	6.0	5.5	6
Spain	5.9	1.7	5.5	12.1	3.0	369
Sweden	5.3	0.6	5.5	6.8	4.1	12
Switzerland	5.2	0.8	5.0	6.8	4.1	8
UK	5.6	1.8	5.5	10.0	1.3	30
USA	5.3	1.8	5.0	11.2	1.9	205
Vietnam	13.3	6.4	12.0	20.0	7.2	5

8. Differences in the MRP used by analysts, companies and professors

Table 10 shows the MRPs used in 2010 by analysts and professors for different countries. Professors used for almost every country, on average, a higher MRP than analysts. The dispersion of the MRPs used by professors was also higher than that of the analysts

Table 10. Difference between Analyst and Professors in their estimations of the MRP in 2010

	Analysts						Professors					
	Average	Median	St. dev.	MAX	min	Answers	Average	Median	St. dev.	MAX	min	Answers
Argentina	10.4	8.6	3.6	14.5	6.4	5	12.4	7.1	8.9	25.0	4.3	5
Australia	5.4	5.5	0.7	6.0	4.1	7	6.1	6.0	1.9	10.0	4.0	21
Brazil	5.8	5.6	1.4	10.0	2.0	36	6.8	6.0	1.1	9.0	6.0	9
Colombia	6.9	6.4	2.3	12.0	4.5	8	8.7	7.3	4.7	15.0	3.4	5
Egypt	8.0	8.0	2.6	13.7	5.4	8	7.1	7.0	2.0	9.0	4.1	7
Europe	5.0	5.0	1.3	11.9	3.0	197	5.3	5.0	1.7	12.0	2.0	194
India	6.1	6.0	1.0	7.5	5.0	10	10.3	8.5	6.6	30.0	4.4	13
Mexico	6.5	5.5	2.6	15.0	3.7	20	10.9	9.1	7.3	25.0	5.5	6
Poland	5.1	5.0	0.5	6.5	4.5	18	6.3	6.5	1.2	8.0	4.4	6
Singapore	6.3	4.6	2.8	10.3	3.9	5	8.4	7.2	2.5	12.0	6.0	5
South Africa	5.8	6.0	0.7	7.3	4.9	13	5.5	6.0	1.3	7.0	4.0	8
Turkey	6.0	6.0	1.1	8.3	4.5	21	8.0	6.0	4.7	16.0	4.5	5
UK	5.2	5.0	1.4	10.0	3.5	31	5.0	5.0	1.6	10.3	2.5	49
USA	5.1	5.0	1.1	10.0	2.5	104	6.0	6.0	1.7	12.0	2.0	462

Table 11 shows the MRPs used in 2010 by professors, analysts and companies for USA, Euro, UK and other countries. Professors had a higher dispersion than Analysts and Companies. **Figure 7** is a graphic representation of the main results of table 11.

Table 12 shows the MRPs used in 2010 and 2009 by professors, analysts and companies for USA, Euro, UK and other countries. The average MRP used by the groups in 2010 is lower than the one used in 2009. **Figure 8** is a graphic representation of the main results of table 11

Table 11. Market Risk Premium used in 2010 by Professors, Analysts and Companies in some countries

	Analysts			Professors			Companies		
	Average	Median	St. dev.	Average	Median	St. dev.	Average	Median	Std Dev
Brazil	5.8	5.6	1.4	6.8	6.0	1.1	7.3	6.8	1.9
Europe	5.0	5.0	1.3	5.3	5.0	1.7	5.7	5.5	1.5
India	6.1	6.0	1.0	10.3	8.5	6.6	7.9	8.0	0.8
Mexico	6.5	5.5	2.6	10.9	9.1	7.3	6.9	5.5	3.0
Poland	5.1	5.0	0.5	6.3	6.5	1.2	5.8	6.0	0.3
South Africa	5.8	6.0	0.7	5.5	6.0	1.3	5.8	6.0	0.3
UK	5.2	5.0	1.4	5.0	5.0	1.6	5.6	5.5	1.8
USA	5.1	5.0	1.1	6.0	6.0	1.7	5.3	5.0	1.8

	Analysts			Professors			Companies		
	MAX	min	Answers	MAX	min	Answers	MAX	min	Answers
Brazil	10.0	2.0	36	9.0	6.0	9	9.7	4.5	12
Europe	11.9	3.0	197	12.0	2.0	194	12.1	3.0	543
India	7.5	5.0	10	30.0	4.4	13	9.0	6.6	11
Mexico	15.0	3.7	20	25.0	5.5	6	12.5	4.0	13
Poland	6.5	4.5	18	8.0	4.4	6	6.0	5.5	6
South Africa	7.3	4.9	13	7.0	4.0	8	6.0	5.5	6
UK	10.0	3.5	31	10.3	2.5	49	10.0	1.3	30
USA	10.0	2.5	104	12.0	2.0	462	11.2	1.9	205

Table 12. Market Risk Premium used in 2010 and in 2009 by Professors, Analysts and Companies

		2010				2009			
		USA	Euro	UK	Other	USA	Euro	UK	Other
Professors	Average	6.0	5.3	5.0	7.8	6.4	5.4	4.9	8.9
Analysts	Average	5.1	5.0	5.2	6.3	5.5	5.1	5.3	6.3
Companies	Average	5.3	5.7	5.6	7.5	5.5	5.8	5.9	7.3
Professors	St. dev.	1.7	1.7	1.6	4.2	2.4	1.9	1.5	3.8
Analysts	St. dev.	1.1	1.3	1.4	2.2	1.3	1.2	1.2	2.0
Companies	St. dev.	1.8	1.5	1.8	3.2	1.8	1.6	0.8	2.3
Professors	Median	6.0	5.0	5.0	7.0	6.0	5.0	5.0	7.1
Analysts	Median	5.0	5.0	4.5	5.9	5.0	5.0	5.0	6.0
Companies	Median	5.0	5.5	5.5	7.0	5.5	5.5	5.8	7.0
Professors	Respondents	462	194	49	145	448	194	49	140
Analysts	Respondents	104	197	31	269	99	189	29	197
Companies	Respondents	205	543	30	123	189	521	28	109

Figure 7. MRP used in 2010 by analyst, professors and companies for different countries
 The chart shows the average and the interval $[(average - \sigma), (average + \sigma)]$

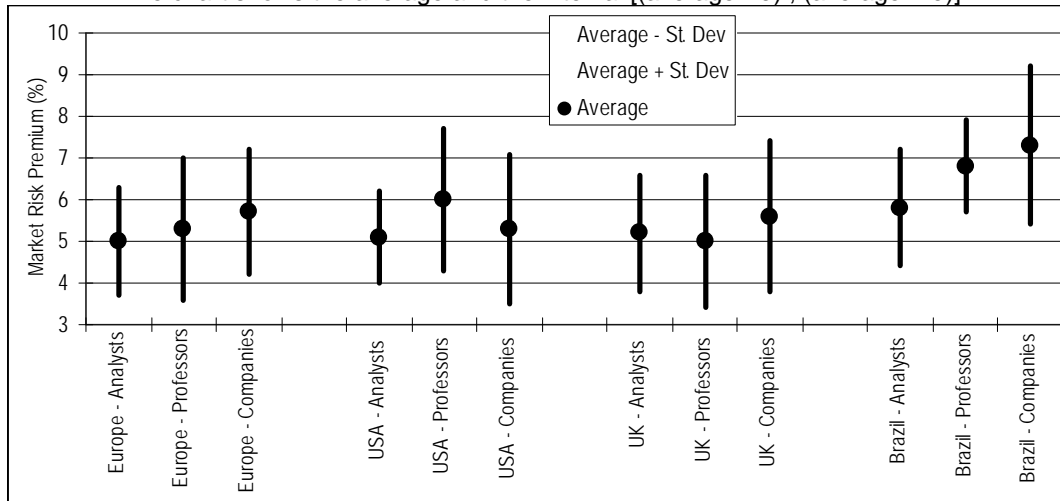
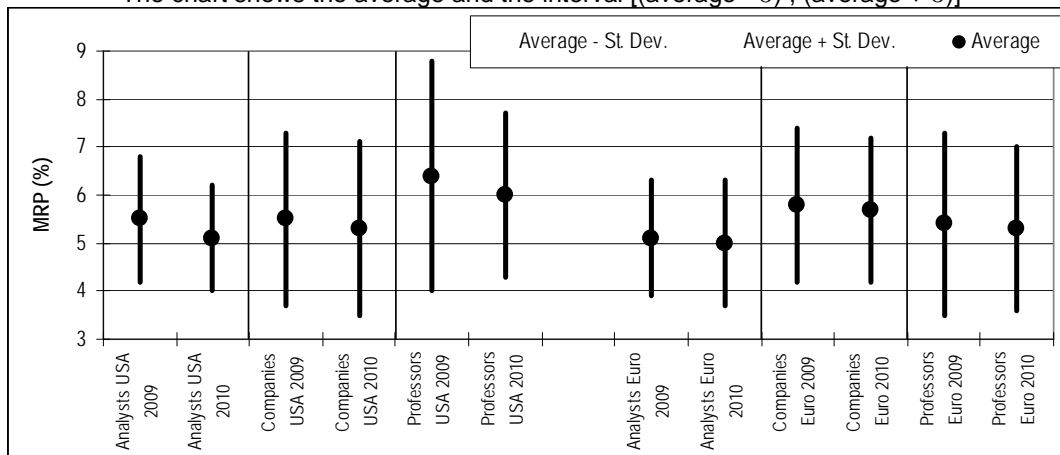


Figure 8. MRP used in 2010 and 2009 by analyst, professors and companies for USA and Europe
 The chart shows the average and the interval $[(average - \sigma), (average + \sigma)]$



9. Conclusion

Most surveys have been interested in the Expected MRP, but this survey asks about the Required MRP.

The average MRP used by analysts in the USA and Canada (5.1%) was similar to the one used by their colleagues in Europe (5.0%), and UK (5.2%). But the average MRP used by companies in the USA and Canada (5.3%) was smaller than the one used by companies in Europe (5.7%), and UK (5.6%).

The dispersion of the MRP used was high, but lower than the one of the professors: the average range of MRP used by analysts (companies) for the same country was 5.7% (4.1%) and the average standard deviation was 1.7% (1.2%). These statistics were 7.4% and 2.4% for the professors.

The paper also contains the references that analysts and companies use to justify their MRP, and comments from 89 respondents that illustrate the various interpretations of what is the required MRP.

EXHIBIT 1. Mail sent on April and May 2010

I am doing a survey about the Market Risk Premium (MRP) that companies, analysts and professors use to calculate the required return to equity in different countries.

I will be very grateful to you if you kindly reply to the following 3 questions.

Of course, no individuals, universities or companies will be identified and only aggregate data will be made public.

Best regards and thanks,
Pablo Fernandez
Professor of Finance. IESE Business School. Spain

3 questions:

1. The Market Risk Premium that I am using in 2010 is: _____%

2. Books or articles that I use to support this number:

3. Last year, I used a different MRP: _____%

Comments

EXHIBIT 2 COMMENTS OF ANALYSTS AND COMPANIES THAT DID NOT PROVIDE THE MRP USED IN 2010

1. I regularly use the Monthly CRSP index return (value weighted to reduce the effect of low liquidity small stocks) then subtract the U.S. one month T-bill.
2. I use a 'rule of thumb' discount rate of 10% and a further (arbitrary) discount rate to proxy remaining project execution risk.
3. Average long term yield on government bonds for companies that we follow in UK/Europe
4. Banks to me are giant bond portfolios and should trade at off book value, the is usually supported by some type of earnings multiple, which is higher dependent on the ROEs of the business. Higher the ROE of course, the higher the multiples.
5. Biotech companies: the lowest discount factor I use this year and last year is 12%
6. DCF's are too sensitive and arbitrary
7. Nuestros accionistas esperan un TIR mínimo de un 20%
8. Nuestro Grupo no cotiza y no invierte en Bolsa. No tenemos criterio de prima de riesgo para acciones.
9. For the large cap oil stocks that I cover – I use an Equity Risk Premium in my DCF valuations ranging from 5.0% to 7.5% based on market of inception ERP skewed by an appreciation of the geographical bias (and therefore political risk) for operations.
10. For valuing biotech companies, depending on the stage of development of the drugs, I use a different rate which also must take into account another discount rate reflection how novel the technology is. My discount rate varies between 30-70% for non-revenue companies.
11. I can't really disclose our assumptions as it is part of the "research", which is exclusively disclosed to our clients (apart from selective dispatch press).
12. I do not make these calculations in my work, but rather follow what the market tells me....I am only an observer.
13. I do not use cost of capital method to value securities – PE multiple is the predominantly used metric
14. I don't use it – as far as I am concerned it is not a number of any worth to me. It is either subjective, or wrong. Too theoretical, he said heretically! It is not quite all about the numbers...
15. I rarely use CAPM in valuation

16. I really do not put a market risk premium on my price targets. While I should use DCF calculations more often, I have found that in the real world these either 1) do not play out due to the lack of pure information that only insiders have or 2) the length of time it takes for the DCF scenario to play out is well beyond 2-3 years, and I am charged with a 6-18 month outlook, and this time frame is often driven largely by other factors.
17. While I should use DCF calculations more often, I have found that in the real world these either 1) do not play out due to the lack of pure information that only insiders have or 2) the length of time it takes for the DCF scenario to play out is well beyond 2-3 years, and I am charged with a 6-18 month outlook, and this time frame is often driven largely by other factors.
18. I really don't use a fixed MRP. We invest primarily in private companies. Beta, CAPM, etc. are frameworks that don't apply well to how we view risk/return and ultimately how we derive required return on specific investments. For us it is as much art as it is science.
19. I use cost of debt + 300bps for cost of equity
20. I use the market measured risk premium. I do not use books to justify the method. Variations occur in the MRP all the time
21. if we do MRP we just take it from Bloomberg (VERY rarely)
22. I'm afraid we don't use a formal MRP. The events of last 2 years have rather dissuaded investors asking about such things - prices of equities seem to be driven much more by animal spirits than by theoretical WACC calcs. We rather boringly use WACCs of 8-9% for large FTSE corporates when calculating DCFs if only because they seem to be the industry norm.
23. I can't stress enough though how much distrust there is with DCF as a valuation methodology now - risk aversion means short term earnings and cash flow metrics rule.
24. In valuing my universe of small companies, I do not specifically take into account the expected return on stocks or the risk free return.
25. La prima de riesgo es un concepto que aprendí y que no se utiliza mucho porque el que toma la decisión no tiene que justificarse con nadie, sólo con su conciencia, y la prima de riesgo no la alivia...
26. No hacemos uso de tan odiado concepto, y no sabemos qué valor le dan a nivel corporativo en USA
27. Me definen una rentabilidad de proyecto mínima que todos los proyectos han de superar
28. Mostly we just do comps
29. What if companies in Resources segment in Russia never in the past generated free-cash flow? Even in the years when commodity prices were extremely high. What will change in future? Companies become less acquisitive? No. Companies focus on free cash flow? No. Management focuses on Growth no matter how much free cash flow it costs to achieve it. Owners focus on maximizing share price and again they don't care how much it will cost to achieve in terms of free cash flow. So while dividends are paid out from Net income and not from free cash flow investors will focus also not on free cash flow. So in my opinion the whole notion of free cash flow and DCF is too academic and applicable to only selected few companies that take a long-term horizon which is very rare in public equities.
30. I do not refer to books and I don't calculate WACC from basic principles. When I calculate cash flows from future mine production, I use a 'rule of thumb' discount rate of 10% and a further (arbitrary) discount rate to proxy remaining project execution risk.
31. No uso este concepto en mis actividades inversoras. Es más, me parece un disparate que conduce a muchos sinsentidos. Si el equity risk premium, como dicen muchos, fuese algo que se obtendría con seguridad a largo plazo ¿donde está el risk que se hace merecedor del premium?
32. Nuestros objetivos los marcamos en conseguir una TIR mínima. En nuestro caso la TIR puede variar entre el 12 y 16%
33. Our models are based on fundamental analysis, personal experience of analysts and what is more important on analysis of macroeconomical and geopolitical factors. We consider analyst's opinion and vision of political games to be the most important when estimating market risk. In our opinion, Russia's stock market can not be analysed only in traditional ways of fundamental analysis. Due to this I can not answer 1, 2 questions. As for the 3rd question, our analysts do read a lot of books and articles about stock market and related issues. However, we do not support technical analysis
34. Real WACC 8%
35. Regarding your message I would like to inform you that I am not directly related to the issue. However, I asked a couple of my colleagues to get their ideas. I will let you know when I receive feedback from them.
36. The ERP and the market prices of equities are dynamic
37. We are Valuation Consultants and have no involvement in MRP.
38. We are using a blended Cost of Equity of between 9.5%-11% per division. We have not adjusted the risk premium for the artificially low 'risk free rates', as they are a reflection of flight to quality and high risk adverseness in the market place.
39. We cover more than 130 companies in many countries. We use a standardised 10% nominal discount rate in DCF calculations. Given 24 years in finance, I find that while the market may be efficient overall in a

general sense, for each individual stock it is not. We also find that investors in different countries have different attitudes to country risk and hence required returns on equity. For example, the London market is more willing to accept a lower return on Russian investments than the US market. Canada is more comfortable in central American countries than the UK. Risk, and hence required returns and MRP, like beauty is in the eye of the beholder.

40. We rather boringly use WACCs of 8-9% for large FTSE corporates
41. We simply use a WACC of 7.5% to 8.0%, depending on the segment
42. We tend to use a constant WACC over time within our research of either 7% or 8%. we have found within the capital goods sector, the number 1 approach for stock selection (in terms of both annual returns and consistency as an investment strategy) is earnings momentum (e.g. earnings growth or consensus upgrades/downgrade), irrespective of valuation.
43. We use a 11.5% cost of equity
44. We use a 14% required rate of return in all of our research since it is the expected performance many investors, on average, demand for an investment in a bank stock (which is my sector focus). I suppose we could say the risk-free rate is 3% to 4% today, so the market risk premium is 10% to 11%, but that may not be the correct way to explain it.
45. We use a flat 9% discount rate in our DCF calculation for oil and gas companies in North America
46. We use EV/EBITDA, P/E and P/B.
47. We use EV/Sales or EV/EBITDA
48. We use K_e

EXHIBIT 3

COMMENTS OF ANALYSTS AND COMPANIES THAT DID PROVIDE THE MRP USED IN 2010

1. Reasonable people disagree and unreasonable people may agree on application of CAPM
2. Risk premia = actual averages derived from data since the year 2000.
3. Equity risk premia applied to individual firms will vary according to individual risk.
4. ROE – Cost of debt
5. Spain 0.5% higher than USA or UK.
6. Please note that I use the 10-year US Treasury bond rate as my risk-free rate, not the T-bill rate.
7. Possibly an area where a practitioner like me would benefit is whether it makes sense to use different MRP estimates as economic conditions change and/or the use of ranges for cost of capital estimates for valuations/ capital budgeting/ performance measurement etc.. The long run historical average seems almost meaningless when one looks at both the standard error of the estimate (7.5% imputation adjusted average with a SE of 23%) and at the ranges/volatility of annual estimates.
8. Risk is increasing with market crashes, not identified in historical calculations in my view. Check the second edition of "Security Analysis On Wall Street" (John Wiley and Sons, 2010)
9. Different companies use different MRP depending on the the expectation of return
10. As this premium is so hotly debated, I've decided to continue to use the practitioner norm from the valuation industry.
11. Aparte de la prima de riesgo de mercado (5%) introducimos una prima de riesgo país (CRP) en base a Damodaran
12. Tomo la prima del año anterior como referencia y la aumento o disminuyo de acuerdo con criterios totalmente discutibles y opinables.
13. Aunque las valoraciones por DCF son muy ocasionales en Leveraged Finance (e inexistentes en Project Finance) sí que las hemos usado ocasionalmente para análisis de Loan to Enterprise Value, bien internas o principalmente hechas por terceros (incluidos Sponsors financieros). El valor que hemos usado / obtenido para Market risk (como prima sobre risk free rate R_f) en el último caso es 6%. No se hicieron análisis en 2009.
14. El inverso del PER medio del mercado menos el valor del dinero "libre de riesgo" aplicado a un mismo periodo t me daría la prima de riesgo. El PER estimado para el IBEX 2010 es 12.53; pues si al inverso, 7.78 le restamos la rentabilidad del tipo swap a 5 años, (estimamos 5 años como una inversión típica en RV) nos da un 5,38%. Para calcular el 2009 con la vol. que tuvimos el dato varió mucho y el PER fluctuó entre 8 y 13. Pero cogiendo una media así grosso modo con una rentabilidad del 5 años swap a 2,8%, me sale un 7% de PdR
15. El wacc de la compañía en 2009 estuvo entre el 7-10% y que es lo que se suele usar a la hora de la valoración.
16. Emerging Markets Bond Index (EMBI) + 550bp

17. En 2009 y 2010 la rentabilidad que exigen los inversores a los fondos propios desembolsados es 20%; ello implica que la PRM es 16%.
18. Of course there have been significant changes to the expectations on the markets between 2008 and 2009 and historical series have radically changed. However expectations for the long term are still difficult to foresee, and risks for the long term could be considered similar to 2009. Of course all these considerations will be verified during 2010, because, especially when examining statistic parameters, the crisis has no precedent and it is difficult to understand.
19. However, it is my belief that historical data results in an overestimation of the MRP. I subscribe to the view that the United States and the world have had a better the expected realization over the last 50 years with respect to the long-run growth of the economy and the riskiness of treasuries. Thus, my MRP is downweighted somewhat.
20. I have been an Investment professional (analyst, portfolio manager and investment manager) in the market for 30 years and I have drawn the conclusion that 6% (MRP over local long bond rate) is a fair long-term reflection of the market premium, but with considerable volatility about the mean. I am a supporter of EVA and similar concepts.
21. I have not changed the rate since there is no significant change in risk perception in the market place and industry in general .
22. I strongly believe that it is the long term risk premium that is interesting when doing equity valuation and that the long term risk premium does not change. If you take the markets present risk premium in to the equation, you'll simply end up finding the market price, and equity as an asset will never be cheap or expensive. Also I believe that in my talks with investors it is my estimates for the individual company that should be in focus and not my assesment of the market risk. Changes in a target price should be driven by change of estimates and not changes in market risk premium.
23. I think 5% ERP is already low enough, I've seen people using lower figures but do not agree with that, speacially in EM.
24. I think the risk is very low and the prospects for appreciation are huge
25. Ibbotson and Goetzmann , I'm a Yale School of Mgmt grad
26. In Australia, there are a significant number of regulatory decisions, which use the CAPM framework and go through a public consultation process. There are a significant number of submissions made on CAPM with expert opinions provided.
27. In fact, I distinguish passive premiums (asset classes, the numbers I gave) and active premiums (via TAA).
28. I work with Sharpe ratio (0.3 for passive / strategic phase in developed markets - a bit more on emerging markets - and 0.4 or 0.5 for TAA) and the anticipation of volatility for each market. I exclude voluntarily an economic approach here because I want to use the structural value of the asset classes. I have another phase that alters the premium on the economic cycle.
29. Letras del tesoro más entre 3% y 4%. Basado en estudios de 100 años en las bolsas mundiales.
30. Ahora le doy más valor al dinero, tras vivir la crisis financiera del 2008, por lo que exigiría al mercado una rentabilidad superior a la que exigía antes;
31. No utilizo libros porque ninguno me va a decir cuáles son mis expectativas.
32. MRP in Vietnam is strongly connected with real estate and stocks market (the most booming and beneficial market in Vietnam).
33. MRP varies with the risk free rate as measured by 10 Year Treasuries
34. No books or articles are relevant, since there is no research which can take account of crisis or post-crisis scenarios
35. $P_m = 10\% - 4\% = 6\%$
36. Presently I am asking for the sponsors of the projects I value to estimate directly a "subjective" required return to unlevered equity, K_u . It ranges from 10% to 10%, real.
37. Prima de Riesgo = diferencial entre la Renta Variable y la Renta Fija en España desde 1980.
38. As a subsidiary of a multinational group we are forced to use WACC's provided by HQs. The latest update of WACC's (by business unit) to be used was issued in Sep 09. The MRP of 4.5% remained unchanged compared to the previous year.
39. The implications of the Financial Crisis will further challenge entrepreneurs as they seek capital to finance expansion or undertake strategic acquisitions. This point is highlighted by the U.S. national Debt to Capital ratio in 2004 of 2.33, where total corporate debt equaled \$12.1 trillion versus \$5.2 trillion in corporate equity. This contrasts with the same ratio at the end of 2008 of 1.35, with \$9.6 trillion in debt and \$7.1 trillion in equity. Themes for U.S. businesses will likely continue to include:
40. The underlying risk premium is derived from regression approach of OSEBX vs. World index.
41. We use the interbank CD rate (CDI) as the benchmark for risk free rate. This rate is published by Banco Central and is currently at 8.75. The future rate indicated by the market goes from 10 to 11% for the second half. Consequently a MRP at 9.75% is an acceptable benchmark.

42. Cada vez estoy más convencido es que la Bolsa (en el caso de España, al menos) en lugar de estar "supervisada" por la CNMV, debería estar supervisada por "Loterías y Apuestas del Estado" y abrir quioscos junto con los de la Quiniela y la Primitiva.

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