FURTHER NOTES ON THE MRP

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1. Introduction

In an earlier note (Lally, 2022), in respect of historical average excess returns for estimating the MRP, I favoured the use of foreign MRP estimates to ameliorate the substantial risk that the estimate based on only local data was far too high or far too low. This issue can be analysed using historical averaging estimates for the MRP from the 15 West European countries along with survey-based estimates of the MRP for the same countries.

2. Analysis

Dimson et al (2021) provide long-run historical average excess returns for a range of markets, for the period 1900-2020. Amongst the 15 Western European markets, and relative to bonds, they range from 3.0% for Spain to 9.7% for Austria as shown in Table 1. It is not plausible that the true values differ this much. So, using only long-run average excess returns to estimate the MRP, and limiting oneself to only local data, the resulting estimate for Spain of 3.0% would likely be far too low and that for Austria of 9.7% would likely be far too high. Putting some weight on the average foreign data and some on local data provides a much better estimator.

An alternative estimator is the survey results from Fernandez et al (2021, Table 2) for the same 15 markets, as shown in Table 1. The survey respondents would be aware of the Dimson et al (2021) results for their country, and various other sources of information. If they placed primary weight on the Dimson et al (2021) results, a regression of the survey results (F) on the Dimson et al (2021) results (D) would yield an intercept close to 0 and a slope close to 1. Alternatively, if they do not place much weight on the Dimson et al (2021) result for their country, the intercept would be well in excess of 1 and the slope close to zero. The actual regression result is

$$F = 5.83 + 0.02D$$

The t values on the coefficients are 12.5 and 0.2 respectively, and the adjusted R^2 is negative. This suggests that the survey respondents place very little weight on the Dimson et al (2021) result for their country, but may place high weight on the cross-country average of those results. The situation is clearest when looking at the four largest such results as shown in Table 1 (Austria, Portugal, Finland and Germany) and the four smallest (Spain, Switzerland,

Belgium, and Ireland). For the first group, the survey result for each country is much smaller than the Dimson et al (2021) result and the average reduction is 3.0%. For second group, the survey result for each country is much larger than the Dimson et al (2021) result and the average reduction is 2.0%.

Table 1: Historical Averages and Survey Results

Country	DMS	Survey
Austria	9.7	6.0
Belgium	4.2	6.0
Denmark	4.9	5.9
Finland	9.0	5.8
France	5.3	5.7
Germany	7.9	5.5
Ireland	4.4	5.9
Italy	6.4	6.0
Netherlands	5.2	5.9
Norway	5.1	5.1
Portugal	9.4	6.5
Spain	3.0	6.4
Sweden	5.0	7.5
Switzerland	3.7	5.1
UK	4.7	5.7

Lally and Randal (2015) analyse historical average excess returns and conclude that most of the variation in values across countries is estimation error rather than variation in true values across countries. This is consistent with the behaviour of the survey respondents.

3. Conclusions

The long-run historical average excess return is a widely used estimator for the MRP of a country. However the estimates have high standard errors, leading to very low values for some countries and very high values for others. Consistent with this, surveys of MRP

estimates suggest that respondents do not place much weight on the historical average excess return for their own market. This suggests that, if the historical average excess return for a market is used, it should be combined with the average estimate for a set of comparable foreign countries.

References

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