

Especially in times of crisis BETAs fluctuate as well: An analysis of the shipping market

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When valuing companies or assets and discounting future cash-flows by the weighted cost of capital (WACC), it is important to know which BETA to use to carry out a Discounted Cash-Flow Valuation. BETAs however are not as stable as it might at a first glance be assumed or hoped for. Especially the time horizon of calculating BETAs can have an important impact on the final valuation.

For the purpose of this analysis we consider the following two shipping companies listed in the US:

- Eagle Bulk Shipping, Inc. (EGLE)
- Diana Shipping Inc. (DSX)

As an index for calculating BETAs we use the S&P 500. Our timeframe is monthly data from the beginning of July 2005 until the beginning of January 2013.

The respective market values can be seen in figure 1 below:

Market Values of Eagle Shipping, Diana Shipping and the S&P 500

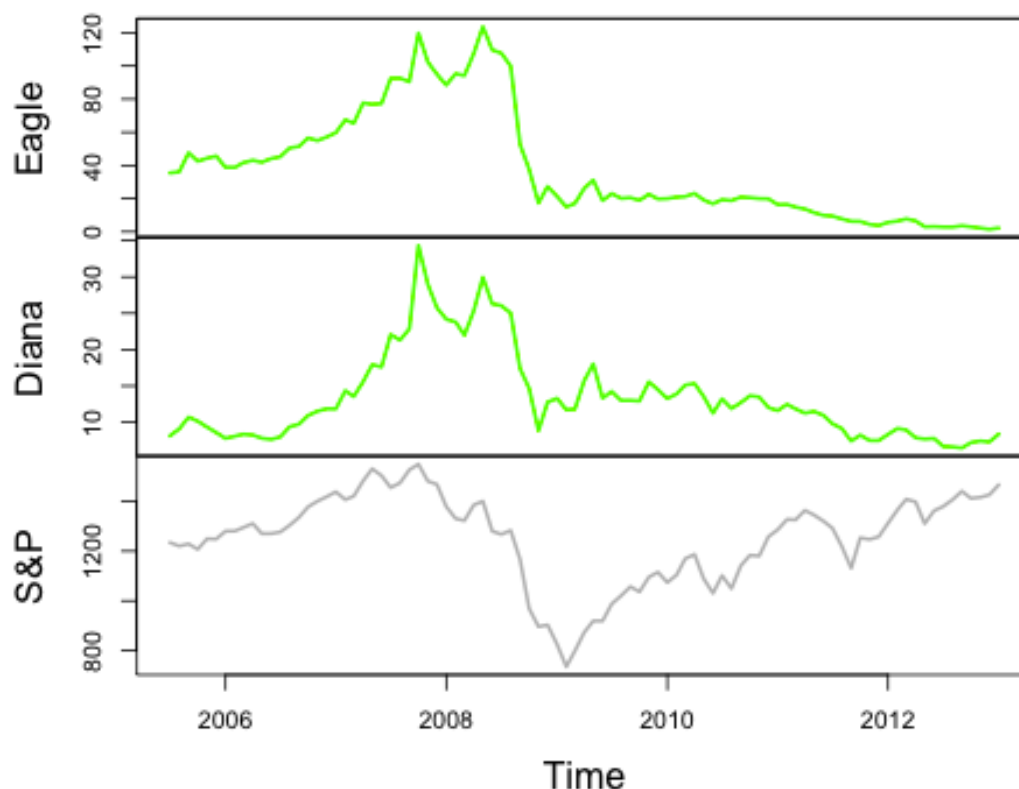


Figure 1 Market values of Eagle Shipping, Diana Shipping and the S&P 500

It can be seen that market values of the two shipping companies move into similar directions over time. While the market (S&P 500) has already recovered from the crisis, market values for the two shipping companies are still down.

Now lets take a closer look at the resulting BETAs. Considering the whole time frame Eagle Shipping has a levered, i.e. not adjusted for capital structure, BETA of 2.7 and Diana Shipping a BETA of 1.5 respectively, as illustrated by the grey lines in figure 2 and 3 bellow. However things get interesting when looking at the rolling BETAs of a 24 month time frame, which is illustrated by the green lines in figure 2 and 3 bellow:

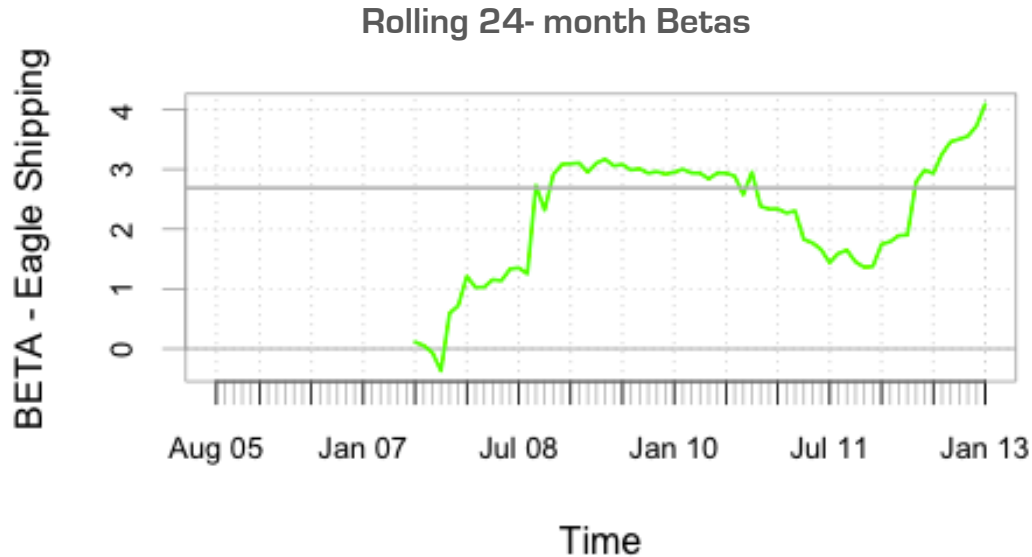


Figure 2 Rolling 24-month Beta of Eagle Shipping

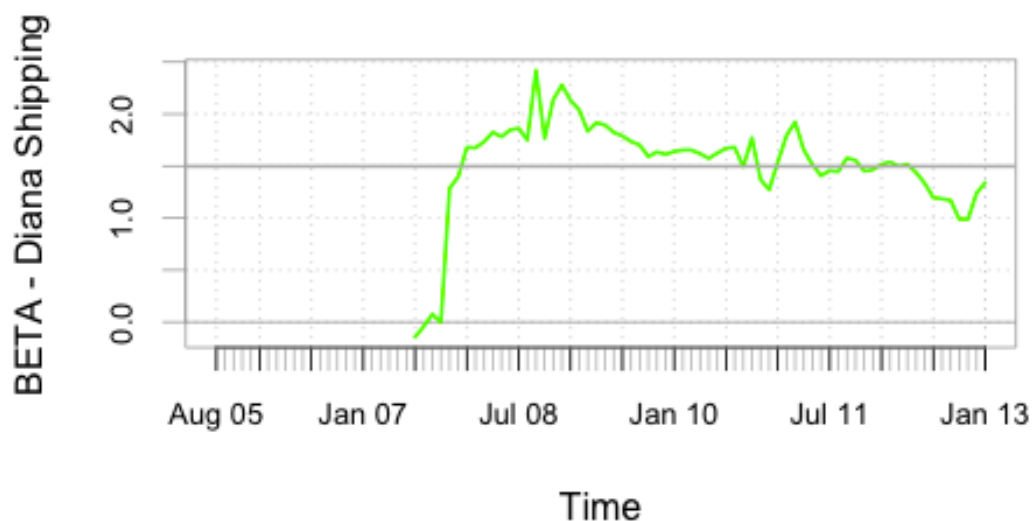


Figure 3 Rolling 24-month Beta of Diana Shipping

Looking at Figure 2 and 3 above it can be seen that just before the shipping crisis BETAs were low and then went up after the crisis. Therefore it can be seen that it is difficult to value companies or assets directly after a crisis begins with historical BETAs, deducted from a time before the crisis. After the crisis the values of BETAs change. BETAs, being a measure of risk, increase their value during the crisis. Valuating assets with pre-crisis BETAs results in valuations that are too high, because of not taking under consideration the new risk perception, that changes with the crisis for a particular company or asset. Especially in times of crisis BETAs fluctuate as well.