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Addendum 3 to the CRI Technical Report, (Version: 2011, Update 1)

Changes to data screening

This document updates the Technical Report (Version: 2011, Update 1) and details the changes to the input data screening that were made for the computation of probabilities of default released on March 16, 2012.

Market Capitalization

The market capitalization of a firm is required in a few input variables: DTD, SIZE, M/B and SIGMA (see section 2.1 of the Technical Report for an explanation of these terms). For most firms, the market capitalization is available from Bloomberg on a daily basis.

A check on the trading volume of shares is now used to remove stale prices. Specifically, if there are more than two consecutive days of identical market capitalization prices, subsequent identical prices are removed only if the trading volume is equal to zero. This is to avoid, for example, cases where the shares of a company are under a trading suspension but the market capitalization data is incorrectly carried forward.

An exception is for Indian companies, where it is common for some companies to have market capitalizations reported only once a month with several consecutive months having identical prices and positive trading volume. These prices are very likely not to be accurate reflections of the firms' value. So, the trading volume is not checked for Indian firms and market capitalizations are excluded after more than two repeated prices. Approximately 4000 companies are affected by this treatment.

For some firms, there are gaps in the market capitalization data provided by Bloomberg. Previously, the first recourse was to use the share price multiplied by the shares outstanding listed in the balance sheet and multiplied by an adjustment factor that Bloomberg provides to account for splits, dividends, etc. However, this data is frequently in error and using the shares outstanding as the previous available market capitalization divided by the price on that day was found to be more reliable.

If the gap in market capitalization data is more than around a year, then the previous computation using the shares outstanding from the balance sheet is again used. If there are still remaining gaps in the data, then shares outstanding from Compustat data is used.

Choice of Financial Statement Entries

Section 3.1 of the Technical Report describes the prioritization of financial statement entries in choosing the financial statement entry to be used for a given period. The same priorities are used, except that now financial statement entries with all other descriptors the same but with different filing statuses will be grouped together. For each variable separately, the variable value is taken from the highest priority financial statement within the group where the value is non-null.

For example, suppose two financial statement entries have the same period end, are both annual statements, are both consolidated statements, and both use the same accounting standard, but the first entry is classified as the "Most Recent" and the second is classified as the "Original" entry. Suppose the total assets and total liabilities are reported in the "Original" entry, and in the "Most Recent" entry only the total liabilities have been updated with a null value for the "Original" entry. Then, the total liabilities will be taken from the "Most Recent" entry while the total assets will be taken from the "Original" entry.

This change was made to group, for example, "Most Recent" and "Original" entries together because Bloomberg occasionally only updates values that change without updating other values. If the entries are not grouped, then most of the variables would have null values.

Also, now if any of the four variables (total assets, total liabilities, current liabilities, long term borrowing) needed for the DTD calculation are missing in the highest priority group of entries, then the next highest priority group of entries is used. If no financial statement in a period contains all four of these variables, then the previous period is used. Financial statements earlier than two years back will not be used.