

**Master Sciences de Gestion Administration des Affaires
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Essai

Matière : Empirical Methods in Accounting and Finance

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Dissertation

Essai description

The goal of the dissertation is (i) to study value creation effects of mergers and acquisitions using the standard event study approach and (ii) to identify determinants of these value effects.

The datasets provided to the students are:

- (i) MA_Sample_1990_2002.xls: a large sample of mergers and acquisitions coming from the SDC database.

The available fields of information are:

- | | |
|---------------------------------|--|
| a. Id_Op : | a unique numerical identifier of the transaction |
| b. Date_Announced : | the announcement date |
| c. Date_Effective : | the date of deal completion |
| d. tNAME : | the target name |
| e. tPERMNO : | the target permanent number (unique CRSP identifier) |
| f. tSIC : | the target industry code |
| g. tNATION : | the target nation |
| h. aNAME : | the acquirer name |
| i. aPERMNO : | the acquirer permanent number (unique CRSP identifier) |
| j. aSIC : | the acquirer industry code |
| k. aNATION : | the acquirer nation |
| l. %Owned After : | the % of target shares owned after transaction |
| m. %Shares Acq.: | the % of acquirer shares acquired |
| n. Value of Transaction (\$mil) | the deal value |
| o. Payment | the payment mode |
| p. tSTATUS | the target status (private, public ...) |
| q. aSTATUS | the acquirer status (private, public, ...) |
| r. Number of Bidders | the number of bidders |
| s. Attitude | the acquirer attitude (hostile, friendly, ...) |

- (ii) Output.zip: a compressed archive file containing the following files (extracted from the CRSP and

Compustat databases) :

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|----------------------|--|
| a. CRSP_D_PRC.csv | daily share prices (from CRSP) |
| b. CRSP_D_RET.csv | daily returns (from CRSP) |
| c. CRSP_D_SHROUT.csv | daily number of shares outstanding (from CRSP) |
| d. CRSP_D_sprtrn.csv | daily returns of the standard and poor index |
| e. CRSP_D_VOL.csv | daily volumes |
| f. DATA1/N/ | Cash and Short-Term Investments (MM\$) |
| g. DATA2/N/ | Receivables - Total (MM\$) |
| h. DATA3/N/ | Inventories - Total (MM\$) |
| i. DATA4/N/ | Current Assets - Total (MM\$) |
| j. DATA5/N/ | Current Liabilities - Total (MM\$) |
| k. DATA6/N/ | Assets - Total (MM\$) |
| l. DATA7/N/ | Property- Plant & Equip -...(Gross)(MM\$) |
| m. DATA8/N/ | Property- Plant & Equip - ... (Net)(MM\$) |
| n. DATA9/N/ | Long-Term Debt - Total (MM\$) |
| o. DATA10/N/ | Preferred Stock - Liquidating Value(MM\$) |
| p. DATA11/N/ | Common Equity - Tangible (MM\$) |
| q. DATA12/N/ | Sales (Net) (MM\$) |
| r. DATA13/N/ | Operating Income Before Deprec. (MM\$) |
| s. DATA14/N/ | Depreciation and Amortization (MM\$) |
| t. DATA15/N/ | Interest Expense (MM\$) |
| u. DATA16/N/ | Income Taxes - Total (MM\$) |
| v. DATA17/N/ | Special Items (MM\$) |
| w. DATA18/N/ | Income Before Extraordinary Items (MM\$) |

| | |
|---------------|---|
| x. DATA33/N/ | Intangibles (MM\$) |
| y. DATA34/N/ | Debt in Current Liabilities (MM\$) |
| z. DATA45/N/ | Advertising Expense (MM\$) |
| aa. DATA46/N/ | Research and Development Expense (MM\$) |

The organization of the datasets will be explained during the lecture. Using Gauss and these two datasets, the students will produce the following results:

- (i) The CAR of the acquirer, the target and the deal (using market values of the acquirer and the target to compute value-weighted CAR at the deal level). Two return generating processes will be used: Beta1 and Market Model. The results obtained using these two return generating processes will be compared;
- (ii) The determinants of the computed CAR (acquirer – target – deal) will be analyzed using standard multivariate OLS approaches. The analysis will include:
 - a. Deal characteristics (from MA_Sample_1990_2002.xls)
 - b. Acquirer and target characteristics :
 - i. From MA_Sample_1990_2002.xls
 - ii. Financial ratios computed using data item from Compustat
- (iii) Some acquirers realized several acquisitions during the analyzed period. The students will identify the econometric challenges that this fact raises and propose solutions to deal with.

To keep in mind

- (i) In the CRSP database, negative prices mean “reported prices”;
- (ii) “-98” and “-99” are numeric code used to indicate missing data;
- (iii) Financial ratios often display strong outliers (in particular when book equity is used at the denominator). It is important to mitigate their effects;