I/B/E/S DETAIL HISTORY

A guide to the analyst-by-analyst historical earnings estimate database

U.S. Edition

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OVERVIEW

The Daily Detail Earnings Estimate History is a database containing over twelve years of forecast changes for U.S. companies. This database has been built primarily from monthly detail files we have archived over the years. It encompasses earnings estimates from more than 200 brokerage houses and 2000 individual analysts. This data will allow users to test investment techniques in new and innovative ways. Among the many possible applications of historical detail data are:

Creating a custom consensus

By screening the data based upon a preset criteria of your choosing, you may create a consensus forecast that proves more accurate than the unfiltered consensus forecast. Once sufficiently backtested this may be applied to current forecasts to generate superior results.

Isolate a particular broker or analyst

The Daily Detail Earnings Estimate History will allow you to follow any individual broker or analysts' forecast accuracy over time. You may follow an analyst even if he/she changes affiliations. Each brokerage and analyst is assigned a unique and independent identification number.

Backtest revisions hypothesis

A recent study done by Merrill Lynch suggests that earnings estimate revisions are one of the key variables that drive investment strategies. The I/B/E/S historical detail file will allow you to develop and backtest unique derivations of your own design.

The Daily Detailed Earnings Estimate History is setup in a relational database format. It is comprised of 8 data files. A conscious effort has been made to keep the variables in each file distinct. This helps to make the files "programmer friendly." The joining variable key for most of the files is the I/B/E/S Ticker. The I/B/E/S ticker is a unique identifier assigned to each security that is consistent throughout the I/B/E/S history. Most other common identifiers (CUSIP, SEDOL, Official Ticker, Company Name) are subject to change over time. If one of these variables is your preference each is available in the Identifier file.

The Daily Detail History is a reconstruction of our archived Detail tapes. We have gone to great lengths to make certain that the database we have created is as free of errors as is possible. Our quality assurance for this product will continue moving forward. However, because the database is a reconstruction there are a few items that bear mentioning.*

(*Note: In June of 1993, I/B/E/S officially cut over to its new Sybase database. None of the issues mentioned in this section are pertinent in the new database.)

For a variety of reasons (restricted lists, corporate announcements,etc..) an analyst may discontinue his/her earnings estimates on an individual security. In the source files for the Daily Detail History there is no explicit indicator of this occurrence for periods before June, 1993. Through an algorithm we developed we have been able to calculate an effective stop date. These dates are provided in the Stopped Estimate File.

The source files for the Daily Detail History contain each analysts current forecast and their previous forecast. In the event that an analyst changed an individual estimate three times or more in the space of a given month we would only be able to capture the 2 latest changes. This a very rare occurrence and we mention it only in the interest of being forthright.

Lastly, error corrections are not reflected in the original source files and as such the timing of these changes in the Daily Detail file may be imprecise. Changed estimates will appear but in the event that an estimate was removed it may not be reflected on the exact date of occurrence.

FILE EXPLANATIONS

This section provides a brief description of each of the 8 files included in the Daily Detail Earnings Estimate Database. It is followed by a glossary of terms that defines each variable.

Detail File *(Detfil*.*)*

The Detail File is the core of the Daily Detail Estimate History. At its essence it is a timeline of twelve years of earnings forecast changes. Each of the other files provided augments the Detail File. The file consists of 11 variables each of which is defined in the glossary. The Detail file contains analyst by analyst estimates for as many as five fiscal year periods and four quarterly forecasts as well as long term growth estimates for each security followed.

Some specific points of interest regarding the Detail file:

The sort on this file is: I/B/E/S Ticker, Fiscal Period Indicator, Broker Code, and Estimate Date.

This file is approximately 279 megabytes and is expected to grow by approximately 90 megabytes per year.

The Broker Code and Analyst Code fields are provided as numbered codes. This has been done for programming ease. The codes can be replaced by the broker and analysts names by accessing a separate Broker Translation file. This file is subject to a permission matrix.*

(*Note: Each contributing broker is permitted to deny access to their own forecasts. While this right is rarely exercised, it is an important feature for our contributors)

In the event that a broker has disallowed their estimates, the estimates will still appear but there will be no broker or analyst name in the Broker Translation file.

There are some Canadian companies that are also listed on U.S. exchanges. Some of these are included in the U.S. Daily Detail History. Estimates for these companies are generally provided in the company's reporting currency.

The Currency flag and Primary Diluted Flag in this file are estimate specific. When programming against the data it is important not to confuse these fields with the Currency Indicator and Primary/Diluted Indicator in the Identifier File. The records in the Identifier file are Company specific. It is very important to note that all data in the Detail File is completely adjusted. That is, if a single analyst's forecast was received with different Currency or Primary/Diluted indicators on the company and estimate level it appears on an adjusted basis. The flags appear so that users may unadjust the data if they choose using data provided in the Identifier or Exchange Rate files.

Identifier File *(Idfil*.*)*

The Identifier File provides ancillary data for informational purposes. It can be linked to the Detail File using the I/B/E/S Ticker. There are 12 data fields within the file and it is currently less than 2 megabytes. The growth in size of the Identifier file in the future will correspond to the growth in the number of companies in the I/B/E/S universe.

There are several data items that are used only in the International version of the Daily Detail History.

They are: Uniform Actuals Indicator, MSCIP flag and the Parent/Consolidated flag. In addition the Currency Flag is used in the Domestic file to identify companies followed in Canadian Dollars and for U.S. companies the value that appears in the CUSIP/SEDOL field will always be a CUSIP. SEDOLS are used for International companies. The Dilution factor used in the Identifier file is calculated from the issuers annual earnings report. It is calculated by dividing primary eps by fully diluted eps.The Start Date is the first date that a data row is effective.

Adjustments File *(Adjfil*.*)*

The Adjustments file deals primarily with splits. The Adjustments File is approximately 362 kilobytes. All data in the detail file appears on a split adjusted basis. This means that historical data appears on the same basis as current data. The data in the file is provided for those clients who wish to "unsplit" the data and use it as it originally appeared. The Publication Date is provided as an indicator of when the split was originally activated on the I/B/E/S database. Because the archives used to create the Detail History are monthly slices of data, splits are "effective" as of the Publication date. Any data prior to the effective split date has been adjusted in the Detail file by the corresponding factor in this file.

To unadjust the data, the following logic should be applied:

1) Retrieve the estimate value, estimate date and I/B/E/S ticker from the detail file.

2) Using the I/B/E/S ticker and Estimate Date, retrieve the single record from the split file where *I/B/E/S ticker = I/B/E/S ticker* and *Split Date ≤ Estimate Date*.

3) Retrieve the split factor from the record and multiply the estimate value by it.

Excluded Estimates File *(Exclfil*.*)*

Occasionally estimates on the database will deviate from the accepted standard (as defined by the majority of analysts covering a particular issue. When this occurs the I/B/E/S Data Center endeavors to contact the analyst for confirmation of either the estimate itself or the methodology behind it. In the past, estimates were removed from the database if a satisfactory resolution to the discrepency could not be reached. Some time ago we developed a system whereby we could exclude these estimates from the consensus data while still allowing users access to the individual analyst's forecast. These data are included in this file.

Broker Translations *(Branfil*.*)*

The Broker Translation file should be used to convert the codes listed in the Detail File to the appropriate Broker and Analyst names. The Broker Translation file is currently 317 kilobytes and will grow at the rate new contributors are added to the database. The codes have been left in the Detail File to facilitate programmers as it should be easier to program against numeric codes rather than character strings. The Broker Code is an abbreviated code name given to each broker by I/B/E/S. Note: I/B/E/S maintains a permission matrix for each contributing broker. In the event that a broker has denied access to their estimates for a particular subscriber, the estimates for that broker will still appear but the translation codes will not appear in the Broker file.

S/I/G Codes *(Sigfil*.*)*

S/I/G (Sector/Industry/Group) codes are provided for informational purposes and to allow the user to create subsets of the data based on individual company's line of business. The current file is approximately 35 kilobytes and is unlikely to change significantly in the foreseeable future. The convention used by I/B/E/S to classify companies is loosely based upon the S&P classification system. Over the years as companies were added that did not fit into the S&P convention, several additional S/I/G codes were added to the I/B/E/S list. Sector is the broadest division with Industry and Group becoming more specific. As in the Broker Translations file a numerical code and text equivalents have been provided for programming ease.

Stopped Estimate File *(Stopfil*.*)*

The Stopped Estimate File reports when an individual analyst removed his/her earnings forecast from the database. This can result from several events, eg. a brokerage places a stock on a restricted list due to an underwriting relationship. Prior to June, 1993 actual stop dates do not exist in the archive files used to create the Daily Detail History so an algorithm was developed to determine the date when an estimate became invalid. The Stopped Estimate file is currently 30 megabytes and is subject to grow as the Detail file grows.

Exchange Rate File *(Canxfil*.*)*

In the event that an analyst's forecasts and the I/B/E/S reporting currency disagree, the data is adjusted to conform to the company level currency. For users that wish to view the data unadjusted, this file contains the exchange rates that were used for adjustment. Simply apply them in reverse to unadjust the data. Bear in mind that after this has been done the data will not agree with the reported actuals or other analysts' forecasts unless the same factor is applied to all data.

Report Currency File *(Curfili.*)*

There are some companies in the Analyst by Analyst History database that have their data in different currencies at different points in time. For example, a few years ago Placer Dome, a Canadian gold mining concern, changed its reporting currency from Canadian Dollars to U.S. Dollars. Of course, analysts subsequently changed the currency of their earnings forecasts and as such, I/B/E/S changed the way we carried the company. This file contains a history of the companies in the Analyst by Analyst History database and their reporting currencies over time.

Actuals File *(Actfil*.*)*

The Actuals file is a list of actual reported earnings and the date on which they were received by I/B/E/S. Reported earnings are entered into the database on the same basis as analyst's forecasts. By and large this means operating earnings as opposed to net income.

Note: The I/B/E/S History File system was designed for use with relational database management systems (RDBMS) such as Oracle, Microsoft SQL Server and Sybase. Its normalized file structure allows flexible updates and manipulation of the data.

FILE FORMATS

Detail File

Field	Type**	Position
I/B/E/S Ticker*	X	1 – 6
Broker Code	N	8 – 12
Analyst Code	N	14 – 19
Currency Flag (Estimate Level)	X	21
Primary/ Diluted Flag (Estimate Level)	X	23
Forecast Period Indicator†	X	25
Measure	X	27 – 29
Forecast Period End Date	N	31 – 34
Value	D	36 – 44
Estimate Date (YYMMDD)	N	46 – 51
Review Date (YYMMDD)	N	53 – 58

* I/B/E/S Ticker is used as the linking variable for most files because it is unique. Cusips are not used because they are subject to change over time

Identifier File

Field	Type**	Position
I/B/E/S Ticker	X	1 – 6
CUSIP/ SEDOL	X	8 – 15
Official Ticker	X	17 – 22
Company Name	X	24 – 39
Dilution Factor	X	41 – 45
Primary/Diluted Indicator (Company Level)	X	47
Canadian Currency or Parent/Consolidated Flag	X	49
MSCIP Flag	X	51
Uniform Actuals Indicator	X	53
Sector/Industry/Group Code	N	55 – 60
Start Date (YYMMDD)	N	62 – 67

Adjustments File

Field	Type**	Position
I/B/E/S Ticker	X	1 – 6
Adjustment Factor	D	8 – 14
Effective Split Date(YYMMDD)	N	16 – 22

Excluded Estimates File

Field	Type**	Position
I/B/E/S Ticker*	X	1 – 6
Broker Code	N	8 – 12
Analyst Code	N	14 – 19
Forecast Period Indicator†	X	21
Measure	X	23 – 25
Forecast Period End Date	N	27 – 30
Value	D	32 – 40
Estimate Date (YYMMDD)	N	42 – 47
Exclude Date (YYMMDD)	N	49 – 54
Exclude Flag	X	56

Broker Translations

Field	Type**	Position
Broker/Analyst Indicator	X	1
Broker/Analyst Code	N	3 – 8
Broker/Analyst Name	X	10 – 49
Broker/Analyst ID	X	50 – 59

S/I/G Codes

Field	Type**	Position
Sector/ Industry/Group Code*	N	1 – 6
Sector Abbreviation	X	8 – 15
Sector Name	X	17 – 40
Industry Abbreviation	X	42 – 49
Industry Name	X	51 – 74
Group Abbreviation	X	76 – 83
Group Name	X	85 – 108

* This field is used to link the file to the identifier file

Stopped Estimate File

Field	Type**	Position
I/B/E/S Ticker	X	1 – 6
Broker Code	N	8 – 12
Periodicity ***	X	14
Measure	X	16 – 18
Forecast Period End Date	N	20 – 23
Effective Stop Date	N	25 – 30

*** (A=Annual; Q= Quarterly; S=Semi-annual; L=LTG)

Exchange Rate File

Field	Type**	Position
Publication Date (YYMMDD)	N	1 – 6
Exchange Rate	D	8 – 19
Currency Code	X	21 – 23

Report Currency File

Field	Type**	Position
Ticker	X	1 – 6
Start Date	N	8 – 13
Currency	X	15 – 17

Actuals File

Field	Type**	Position
I/B/E/S Ticker	X	1 – 6
Measure	X	8 – 10
Periodicity	X	12 – 14
Period End Date	N	16 – 19
Value	D	21 – 29
Report Date	N	31 – 36

† **Period Indicators** are as follows:

0 = Long Term Growth

1 = Fiscal Year 1
2 = Fiscal Year 2
3 = Fiscal Year 3
4 = Fiscal Year 4
5 = Fiscal Year 5
E = Fiscal Year 6
F = Fiscal Year 7
G = Fiscal Year 8
H = Fiscal Year 9
I = Fiscal Year 10
6 = Quarter 1
7 = Quarter 2
8 = Quarter 3
9 = Quarter 4
N = Quarter 5
O = Quarter 6
P = Quarter 7
Q = Quarter 8
A = Semi-Annual 1
B = Semi-Annual 2
C = Semi-Annual 3
D = Semi-Annual 4

** **Data Types** are as follows:

D = Decimal Data
N = Numeric Data, fixed format
X = Character Data, any character string

GLOSSARY

Adjustment Factor	Cumulative factor that has been applied to historical data to adjust for splits and capitalization changes
Analyst Name	Individual analysts name
Analyst Code	A numerical code matched to each contributing analyst
Broker Code	A numerical code matched to each contributing broker
Broker Name	Full name for each contributing broker
Currency Flag (Company Level)	Indicates base currency for company. Individual estimates received in a currency that differs from this indicator have been converted at the rate indicated in the Exchange Rate file.
Currency Flag (Estimate Level)	Indicates the currency of an individual estimate if it is different than the company level currency. All estimates have been converted to the company level currency, this indicator is provided for clients who may wish to 'unadjust' the data.
CUSIP/SEDOL	CUSIPs and SEDOLs are unique numerical identifiers for individual securities. I/B/E/S uses the first 8 digits for each CUSIP, and Country Code followed by the first 6 digits of SEDOLs in its database.
Dilution Factor	Numerical factor used to convert non-conforming forecasts to street convention when dilutive issues exist
Effective Stop Date	Date that an estimate was removed from the I/B/E/S database
Estimate Date (YYMMDD)	Date that an estimate was entered into the I/B/E/S database
Exchange Rate	Canadian exchange rate as of the I/B/E/S Publication Date
Forecast Period End Date (YYMM)	Forecast period end date(in year/month format) of observed estimate
Forecast Period Indicator	Each fiscal period (FY1,FY2,Q1,etc..) is given a numerical value. This allows company comparison regardless of FY end. FY year end can be cross referenced through the Forecast period end date.
Group Abbreviation	Coded abbreviation of Group Name
Group Name	Tertiary division based on business activity. The I/B/E/S database is broken down into 171 groups.
I/B/E/S Ticker	Unique identifier supplied by I/B/E/S. This variable should be used to link data across files and time periods as it will not change and will remain unique.
Industry Abbreviation	Abbreviation for Industry Name
Industry Name	Secondary division based on business activity. The I/B/E/S database is broken into 78 industries.

Measure	Data type indicator (i.e. EPS,CPS,DPS etc.)
MSCIP Flag	Indicator for for companies in the Morgan Stanley Capital International Perspective
Official Ticker	Official trading ticker of company (limited to first four digits)
Parent/ Consolidated Flag	Indicates whether earnings forecasts are provided on a Parent or Consolidated basis
Periodicity	Indicates whether a record is for a quarter or year end
Primary/ Diluted Indicator (Company Level)	Toggle flag indicating whether the company is followed on a primary or diluted basis
Primary/Diluted Flag (Estimate Level)	Indicates whether an individual estimate was received on a primary basis. In cases where the estimate level flag differs from the company level flag, the data has been converted. This indicator is provided for those clients that wish to 'unadjust' the data.
Publication Date (YYMMDD)	Date of publication in I/B/E/S
Report Date	Date corresponding to a company's release of EPS data
Reported Period End Date	Year and month corresponding to the close of a company's business period
Review Date (YYMMDD)	Most recent date that an estimate was confirmed as accurate
Sector Abbreviation	Coded abbreviation for Sector Name
Sector Name	Primary division based upon business activity. The I/B/E/S database is broken down into 11 sectors.
Sector/ Industry/Group Code	Numerical code indicating type of business. Loosely based on S&P industry groupings.
Split Date	Reflects the effective split date on the I/B/E/S database
Standard Deviation	Statistical measure of estimate dispersion
Start date (YYMMDD)	Date when variable first appeared in the I/B/E/S database
Uniform Actuals Indicator	Toggle flag indicating analysts agreement with regard to latest reported earnings
Value	Estimate value