F.EstimatesOnDemand

The EstimatesOnDemand function provides access to FactSet sourced company level estimates data. The data is accessed through the following reports that are available with this function: Actuals, Broker Detail, Broker Snapshot, Consensus, Guidance, Surprise, Consensus Recommendations, Detailed Recommendations and Broker Coverage.

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APPENDIX 34

1 FactSet Estimates

FactSet Estimates provides consensus- and detail-level estimates and statistics from leading investment banks and research firms. With over 780 contributing brokers globally, FactSet Estimates covers more than 16,300 active global companies and 100 data items. Categories of data include sector specific items, commodity estimates, EPS, DPS, guidance and more. Global scope of companies covered is approximately 31% from North America, 27% from Europe, and 35% from Asia. Historical information is available from 1997 for European companies and 2000 for companies in the Americas and Asia. A subscription to the FactSet Estimates database is necessary to be able to extract this data.

The manner in which contributed content is displayed and available on FactSet for individual users and user groups is ultimately determined by the contributing partner.Several of FactSet brokerage partners have additional restrictions on their data. Clients can request that the broker allow greater entitlements and/or greater access to their supplied data on FactSet. Please contact your FactSet representative for additional details.

For more information regarding the FactSet Estimates database refer to Online Assistant page 13369. For a list of active brokers available in FactSet Estimates refer to Online Assistant page 14706.

1.1 F.EstimatesOnDemand Syntax

The syntax for the EstimatesOnDemand function is:

```
Data = F.EstimatesOnDemand(ids, items, report, startDate, optional
arguments)
```

data	variable name for the data returned
ids	CellString array with a list of one or multiple security identifiers
items	CellString array with a list of one or more FactSet data items from the FactSet Estimates database (e.g., EPS, Sales, Net Debt). **Note:** Table 1 in Appendix has a comprehensive list of items for which estimates are available using this function.
report	Allows specification of the types of estimates report through which the data is retrieved. The available reports as Actuals, BrokerDetail, BrokerSnapshot, Consensus, Guidance, Surprise, Consensus Recommendations, Detailed Recommendations, and Broker Coverage.
startDate	The start date as of which the estimate data is retrieved.

Optional arguments,

end	The end date as of which the estimate data is retrieved
freq	The frequency of which the estimate data is retrieved
fiscalPeriod	The fiscal period for the estimate item. The option is available of looking at historical, current, or future fiscal periods. The fiscal period can be specified using relative dates. The arguments entered as relative dates represent a date relative to the most recently updated period. For example, 0 (zero) represents the most recently reported period; -1 represents the time period prior to the most recently reported period. Arguments entered

	can be -1, 0, 1, 2, etc.
periodType	The argument can be entered as “annual”, “quarterly”, or “semi”, depending on the type of estimates data request. Not all equities have estimates for all period types.
fields	Specification of a select number of fields to extract. **Note:** Each section provides a detailed list of the output fields associated with each FactSet Estimates report.
timeStamp	Display the publication time associated with the publication date. The argument would be set up as: 'timestamp', 'y' and it can be used with an actuals report.
reportDate	Display report date. The argument would be set up as: 'reportDate', 'y' and can be used with the Broker Detail report.
previousDates	Used with the Consensus report and refers to previous date as of which estimates can be retrieved and compared to the estimates retrieved as of the date argument. For example, if EPS estimates are displayed as of now, allows clients to compare the EPS estimates as of i.e. 30 days ago.
prev	If the previousDates argument is used the ‘fields’ and ‘prev’ should be appended.
display	Used with the Broker Detail report. If utilizing HISTO for the historical look an ‘end date’ argument must be entered. If utilizing the SNAP mode, an ‘end date’ parameter is not needed unless looking for the current consensus less than 100 days old. Otherwise SNAP will bring back the current consensus as of the last 100 days.
statistic	Used with the Surprise report. There are a number of different statistics that the client can bring back using the Surprise Report. They have the ability to specify which one they prefer. The list includes: Mean, Median (MED), High Estimate (HIGH), Low Estimate (LOW), Sigma and Standard Deviation (STDDEV).
Offset1/offset2	Used with the Surprise report. This parameter is to change the number of days used before and after the report date to calculate price impact. The argument would be set up as: 'offset1', 'offset2'.
Currency	Allows all values to be changed to the specified currency. By default, the currency is the value of the security.
meanText	To display the Rating Name. The argument would be set up as: 'meanText', 'y' and can be used with the Consensus Recommendation report.
estCurrency	In cases where the security’s local currency does not match the Currency of the estimates the argument 'estCurrency', 'Y' can be used. This changes the currency field to display the Estimate Currency of the first security returned. Therefore, if the first security in the list as an Estimate Currency of EUR, all of the results will return in EUR. Also, the field heading changes to EST_CURRENCY.
showExcluded	Available for BrokerDetail and BrokerSnapshot, specifying this to N will only display the broker estimates that are included in the consensus; default is to show all values.
universe	Screening expression to limit the universe
ison	Ison-codes can be used to limit the universe ISON_MSCI_WORLD(0,1) is written as 'ison', 'msci_world', 'isonParams', '0,1'
isonParams	The arguments within brackets in the ison-code
OFDB	Universe is the constituents of an OFDB file, default directory is Client, if the OFDB is stored in another location the path must be included
OFDBDate	Specific date for the constituents of the OFDB

1.2 Date Format - Absolute Dates

Absolute dates indicate a specific day, month-end, fiscal quarter-end, calendar quarter-end, fiscal year-end, or calendar year-end as depicted in the examples below:

- A day: MM/DD/YYYY (e.g. 7/11/1999)

  Note: DD/MM/YYYY is not a valid date format

1 A month-end: MM/YYYY (e.g. 6/1999)

- A fiscal quarter-end: YY/FQ or YYYY/FQ (e.g. 1999/1F, 2000/3F, 2001/2F)
- A calendar quarter-end: YY/CQ or YYYY/CQ (e.g. 1999/1C, 00/3C, 2001/1C)
- A fiscal year-end: YY or YYYY (e.g. 2000, 01, 1999)

1.2.1 Date Format - Relative Dates

Relative dates represent a date relative to the most recently updated period. For example, 0 (zero) represents the most recently updated period -1 represents the time period prior to the most recently updated.

The zero date is determined by the default time period or the natural frequency of the data being requested. Zero (0) when used with monthly data indicates the most recent month end. Negative one (-1) when used with annual data indicates one fiscal year prior to the most recently updated fiscal year.

List of Relative Date Arguments:

D	0D is the most recent trading day, -1D is one trading day prior.
AW	0AW is the most recent trading day, -1AW is the one actual week (7 days) prior to the most recent trading day.
W	0W is the last day of the most recent trading week (usually Friday), -1W is the last trading day of the prior week.
AM	0AM is the most recent trading day, -1AM is the same day, one actual month ago.
M	0M is the last trading day of the most recent month, -1M is the last trading day of the prior month.
AQ	0AQ is the most recent trading day, -1AQ is the same day 3 months prior
Q	0Q is the last trading day of the company's most recent fiscal quarter, -1Q is the last day of the prior fiscal quarter.
CQ	0CQ is the last trading day of the most recent calendar quarter (March, June, September, or December), -1CQ is the last trading day of the prior calendar quarter.
AY	0AY is the most recent trading day, -1AY is one actual year (365 days) prior
Y	0Y is the last trading day of the company's most recent fiscal year, -1Y is the last trading day of the prior fiscal year.
CY	0CY is the last trading day of the most recent calendar year (the last trading day in December), -1CY is the last trading day of the prior calendar year.

1.3 Universe specification

There are different ways of defining the universe for a data request. The Estimates data will be returned for all securities returned by any of the parameters *ids*, *universe*, *ISON* or *OFDB.*

1.3.1 List of Ids

The ids can be added as a list consisting of one or multiple symbols using the *ids* argument, i.e. ids=FDS or ids=VOD-GB,ERIC.B-SE, NOK1V-FI. Any FactSet recognized symbology can be used.

1.3.2 ISON code

The ISON functions returns a 1 if the company is on the specified database and can that way be used to limit the universe to the constituents of an index. For example, the ISON-code for MSCI – United Kingdom Standard is ISON_MSCI_COUNTRY(982600,0,CLOSE,OFF) which would be expressed as 'ison', 'MSCI_COUNTRY', 'isonParams', '982600,0,CLOSE,OFF' in an EstimatesOnDemand call and would bring back data for all of the constituents in the MSCI – UK standard index.

1.3.3 OFDB file

Using the OFDB command limits the universe to securities stored in a proprietary database saved on the FactSet servers. To limit as of a specific date the arguments *OFDBDate* should be used in conjunction with the *OFDB* argument. For example, to limit the universe to the securities in the OFDB file MyPortfolio as of January first 2014 would be expressed as 'OFDB',MyPortfolio', 'OFDBDate', '20140101'.

1.3.4 Universe code

A FactSet screening code can be used with the *universe* argument. Utilizing a universe code makes it possible to limit the universe on a set criteria based on any data item available in the system. To learn more about screening codes to limit a universe see the Online Assistant page 1419.

1.3.5 Use-case - Intraday updates

To capture intraday updates of the estimates library a screening expression can be built to only capture securities that have been updated today. Depending on the different reports different screening expressions are better suited for capturing the securities with the most recent updates. Below are a few examples[1]:

+ **Actuals**

```
'universe','FE_ACTUAL_DATE(RPT_DATE,0,QUARTERLY,0,YYYYMMDD,NOW)=TODAYC'
```

+ **Guidance**

```
'universe','FE_GUIDANCE_DATE(DATEN,EPS,ANNUAL,+1,YYYYMMDD,NOW)=TODAYC'
```

[1] To ensure that the universe code brings back the appropriate securities it is important to match all of the formula inputs. For example if Quarterly Sales figures for fiscal year 2 is extracted the universe code should also specify these arguments as input in the screening formula.

+ **Surprise**

```
'universe','FE_SURPRISE_DATE(DATE,0,ANNUAL,0,YYYYMMDD,NOW)=TODAYC'
```

+ **Consensus/Broker Detail/Consensus Recommendation/Detailed Recommendation**

```
'universe','INTEGER(FE_ESTIMATE_DATE(LAST_DATE,EPS,ANNUAL,+1,YYYYMMDD,NOW))>=
P_DATE(NOW,DATEN)'
```

Any of these screening expressions can be extended to include additional parameters, such as required limitations on geography, sector or financial data items.

1.4 Estimates Report - Actuals

The FactSet Estimates Actuals report provides access to the income statement, balance sheet, cash flow statement and per share data for all companies covered by FactSet Estimates; as well as the median value of the post-event consensus, known as the Broker Actual. The data extracted by this report is accessible by using other functions such as ExtractFormulaHistory and ExtractDataSnapshot, but the value added of this function is that the default output includes a more comprehensive overview of the estimate actuals value, date and a flag explaining from where the actuals value is extracted. This default output would entail making multiple requests using the other functions.

1.4.1 Actuals Methodology

Estimates are data points representing information about a future period: FY1, or FQ1, and beyond. Actuals are data points representing information about the past: FY0, FQ0, or earlier.
An "Actual" can have two forms:

- The value collected directly from the company's income statement, balance sheet, cash flow statement, known as the Actual.
- The median value of the post-event consensus, known as the Broker Actual.
  - Mean can be used to calculate Broker Actual if desired.
  - The Broker Actual is the default value for the European zone, even if an Actual is present.

FactSet Estimates actuals data is collected through a variety of channels, but the primary source is financial statements published by the company. For the U.S., European, and Japanese sources mentioned below, FactSet collects earnings announcements as soon as the data is made available to these news services. Depending on local regulations, this can be anywhere from one to six months after the end of the fiscal period. These sources include:

For U.S. Companies:

- CallStreet Transcripts
- PR Newswire
- Business Wire
- CCN Matthews
- GlobeNewswire
- Market Wire
- CallStreet

For European Companies:

- Financial Express Company Announcements
- Europe PR Newswire
- Hugin Southern Europe
- Hugin
- Europe Business Wire

For Japanese Companies:

- TDNet

1.4.2 Data Fields extracted with the FactSet Estimates Actuals Report

The following table provides a detailed description of each of the 9 data fields that are by default retrieved when using the FactSet Estimates Actuals Report.

Field Name	Description
SecId	The security identifier.
CURRENCY	The currency in which the selected estimate actual item is displayed.
FE_ITEM	The estimates actual item that is being retrieved, i.e. EPS.
FE_PER_REL	The relative fiscal period that is specified in the syntax. For example, when the syntax specified fiscal period=1 and period type=annual, the data is retrieved for the current unreported fiscal year for the company. This field retrieves a 1 for this example since the fiscal period argument is 1. If the argument is for the current reported fiscal year or quarter it would be FY0 or FQ0, respectively.
FE_REPORT_FY	The actual report date.
PUBDATE	The date when the company actually release their data.
Date	The period ending date.
FE_ACTUAL	The actual value.
FE_ACTUAL_FLAG	The Flag for the actual report type being retrieved. + 1 is returned if an actual is available outside of Europe (U.S., Canada, Latin America, Asia/Pacific, and Australia). **Note:** This is not a broker actual. + 2 is returned if a European actual is available. **Note:** This is not a broker actual. + 3 is returned if the data is a broker actual (consensus coverage).

Example 1:

In this example, retrieve for Microsoft the EPS and sales actuals as of now for the current reported fiscal year that the company is in (denoted with the fiscal period 0 argument in the request syntax below) and the values for the fiscal year before that (denoted with the -1 fiscal period argument).

```
data = F.EstimatesOnDemand('msft','eps,sales','actuals','NOW',
'fiscalperiod','-1,0','periodtype','annual');
```

With the output:

R:

```
  SecId CURRENCY FE.ITEM FE.PER.REL FE.REPORT.FY  PUBDATE    DATE    FE.ACTUAL  FE.ACTUAL.FLAG
1  MSFT      USD     EPS         -1   2013-07-19 2013-07-18 2013-06-30      2.58         1
2  MSFT      USD     EPS          0   2014-07-23 2014-07-22 2014-06-30      2.63         1
3  MSFT      USD   SALES         -1   2013-07-19 2013-07-18 2013-06-30  77849.00         1
4  MSFT      USD   SALES          0   2014-07-23 2014-07-22 2014-06-30  86833.00         1
```

MATLAB:

```
              SecId: 'MSFT'
           CURRENCY: {'USD'  'USD'  'USD'  'USD'}
            FE_ITEM: {'EPS'  'EPS'  'SALES'  'SALES'}
         FE_PER_REL: [-1 0 -1 0]
       FE_REPORT_FY: [735434 735803 735434 735803]
            PUBDATE: [735433 735802 735433 735802]
               DATE: [735415 735780 735415 735780]
          FE_ACTUAL: [2.5800 2.6300 77849 86833]
     FE_ACTUAL_FLAG: [1 1 1 1]
```

Note: The FE_ACTUAL_FLAG column returns a 1 flag for all of the actuals and the 1 is returned if an actual is available outside of Europe (U.S., Canada, Latin America, Asia/Pacific, and Australia). This is not a broker actual.

Example 2:

In this example, retrieve for Microsoft and IBM the EPS and sales actuals as of now for the current reported fiscal year that the companies are in (denoted with the fiscal period 0 argument in the request syntax below) and the values for the fiscal year before that (denoted with the -1 fiscal period argument).

```
data = F.EstimatesOnDemand('msft,ibm','eps,sales','actuals','NOW',
'fiscalperiod','-1,0','periodtype','annual');
```

Example 3:

In this example, retrieve for Exxon Mobil the EPS and sales actuals as of 12/31/2010 for the current reported fiscal quarter that the company was in as of that point in time (denoted with the fiscal period 0 argument in the request syntax below) and the values for the fiscal quarter before that (denoted with the -1 fiscal period argument).

```
data = F.EstimatesOnDemand('xom','eps,sales','actuals','12/31/2010',
'fiscalperiod','-1,0','periodtype','quarterly_roll');
```

Example 4:

In this example, retrieve for Exxon Mobil the most recent fiscal year end EPS actuals, dataalong with the time stamp for the report.

```
data = F.EstimatesOnDemand('xom','eps','actuals','0','fiscalperiod','0',
'periodtype','annual','timestamp','y');
```

Example 5:

Instead of listing the securities to extract the data for the universe argument can be used. Here the data is returned for all securities in the FactSet Estimates database that have actual values that have been updated today.

```
data = F.EstimatesOnDemand('','EPS','actuals','NOW','fiscalperiod','0',
'periodtype','ANNUAL','timestamp','Y','universe','FE_ACTUAL_DATE(RPT_DATE,0,
QUARTERLY,0,YYYYMMDD,NOW)=TODAYC');
```

1.5 Estimates Report – Broker Detail

The BrokerDetail report provides access to detail level broker estimates from the FactSet Estimates database. The data extracted by this report is accessible by using other functions such as ExtractVectorFormula, but the value added of this function is that the default output includes more comprehensive broker detail information in terms of the Brokers, Analysts and the change from their historical estimates.

1.5.1 Broker Detail Methodology

The methodology used with the FactSet Estimates database is to group consensus estimates classes into estimate groups, according to the different accounting methodologies used by various brokers. The default consensus (class 0) regroups estimates according to FactSet Estimates methodology. The goal of FactSet Estimates consensus classes is to identify and exclude brokers that use a different methodology from the default methodology used by FactSet Estimates.

A consensus estimate is calculated for one class at a time because creating an average across different classes can be misleading. FactSet Estimates provides a more meaningful consensus estimate figure through the consensus class functionality. For example, in the insurance sector, some brokers make an estimate based on gross premium and others on net premium. If the FactSet Estimates methodology uses net premium as a default, then the estimates of the brokers who use gross premium will belong to a new class of consensus which will be different from the default class.

1.5.2 Data Fields extracted with the FactSet Estimates BrokerDetail Report

The following table provides a detailed description of each of the 18 data fields that are by default retrieved when using the FactSet Estimates Broker Detail report.

Field Name	Description
SecId	The security identifier.
FE_FP_END	The date corresponding to the fiscal period type that is entered. For example, if the arguments entered in the syntax are fiscal period=1 and period type=annual, the relative date is FY1 which is the current unreported fiscal year for the company.
CURRENCY	The currency in which the selected estimate item is displayed.
FE_ITEM	The estimates item that is being retrieved, i.e. EPS.
FE_PER_REL	The relative fiscal period that is specified in the syntax. For example, when the syntax specified fiscal period=1 and period type=annual, the data is retrieved for the current unreported fiscal year for the company. This field retrieves a 1 for this example since the fiscal period argument is 1.
Date	The research date for the estimate item. This corresponds to the date of the report issued by a broker. Whenever a broker sends a new estimate or opinion, it is considered a research date. It reflects the date indicated in the actual report

	issued by the broker, not the date FactSet received it.
FE_BROKER	The FactSet Estimates Broker code. For a list of active brokers available in FactSet Estimates and their corresponding codes refer to Online Assistant page 14706.
FE_BROKERNAME	The Broker Name, i.e. Goldman Sachs. See Online Assistant page 14706 for a full list.
FE_ANALYST	The code for the analyst. The code is based on a FactSet people map and allows brokers to control readership entitlements. See Online Assistant page 14706 for a full list of Broker codes
FE_ANALYSTNAME	The name of the Analyst making providing the estimate.
ENTRY_DATETIME	The entry date of the estimate.
FE_ESTIMATE	The detail estimate history from contributing brokers over specified date range for the specified period (i.e. EPS for FY1).
OTHER_CC	Consensus Class that pertains to a particular estimate. The details of this methodology described in section 2 above.
FE_SECTION	Indicates if according to the default FactSet Estimates consensus methodology the broker is included or excluded from the calculation.
FE_STATUS	Displays exclusion information. Explains the reason for the exclusion (i.e. Dropping Coverage).
FE_EST_REV_VAL	The previous estimate value from the same analyst, for the same fiscal period.
FE_EST_REV_VAL_ARROW	Retrieves a -1, 0, 1 or NA to indicate the direction of the estimate change from the analyst. A -1 indicates that the latest estimate value retrieved with FE_ESTIMATE is lower than the value retrieved with the previous estimate, retrieved with the field FE_EST_REV_VAL. A 0 indicates that there has been no change in the estimate. A 1 indicates that the latest estimate is higher than the previous value from the same analyst. An NA indicates that there was no previous value from that analyst for this security.
FE_EST_REV_VAL_DATE	Retrieves the research date of the previous estimate value that corresponds to FE_EST_REV_VAL.

Example 1:

In this example, retrieve the broker detail history for Earnings per Share (EPS) estimates for Microsoft made over the past year, with the start date being the most recent trading day, which is identified as 0D in the code, and the end date being one actual year ago, which is identified as -1AY. The specified fiscal period is 1, which refers to the current unreported period and when no period type is entered, the default is annual. So the request would be for broker estimate detail history for FY1 EPS, which is for the current unreported fiscal year – in the case of Microsoft in this example, FY1 is currently referring to the fiscal year ending on 06/2012.

> **Note:** The broker detail output for the EPS estimate includes all available estimates, including ones excluded from the consensus calculation and those contributing to GAAP.

```
data = F.EstimatesOnDemand('msft','eps','brokerdetail','0D','end','-
1AY','fiscalperiod','1');
```

With the output:

R:

```
  SecId  FE.FP.END CURRENCY FE.ITEM FE.PER.REL    Date   FE.BROKER          FE.BROKERNAME
1  MSFT 2015-06-30      USD      EPS         1 2014-08-13      1140        Bernstein Research …
2  MSFT 2015-06-30      USD      EPS         1 2014-08-13       917          Cowen & Company
3  MSFT 2015-06-30      USD      EPS         1 2014-08-12        95           Morgan Stanley
4  MSFT 2015-06-30      USD      EPS         1 2014-08-06      1328            Pacific Crest
5  MSFT 2015-06-30      USD      EPS         1 2014-08-07       232              Erste Group
6  MSFT 2015-06-30      USD      EPS         1 2014-08-04      1003        Griffin Securities
7  MSFT 2015-06-30      USD      EPS         1 2014-08-01       904   Axia Financial Research
8  MSFT 2015-06-30      USD      EPS         1 2014-07-31       143          Nomura Research
…
```

MATLAB:

```
                SecId: 'MSFT'
           FE_FP_END: [1x42 double]
            CURRENCY: {1x42 cell}
             FE_ITEM: {1x42 cell}
          FE_PER_REL: [1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 ...]
                Date: [1x42 double]
          FE_BROKER: [1x42 double]
      FE_BROKERNAME: {1x42 cell}
         FE_ANALYST: [1x42 double]
     FE_ANALYSTNAME: {1x42 cell}
     ENTRY_DATETIME: [1x42 double]
        FE_ESTIMATE: [1x42 double]
           OTHER_CC: [0 0 0 0 0 0 0 0 3 0 0 0 0 0 0 0 0 3 0 0 0 0 0 0 0 ...]
        FE_SECTION: {1x42 cell}
         FE_STATUS: {1x42 cell}
     FE_EST_REV_VAL: [1x42 double]
FE_EST_REV_VAL_ARROW: [1x42 double]
 FE_EST_REV_VAL_DATE: [1x42 double]
```

> **Note:** Alternatively, it is possible to access the estimates for one broker over this date range by adding the broker code, i.e. Bernstein Research. The comprehensive list of broker codes can be accessed on Online Assistant page 14706.

```
data = F.EstimatesOnDemand('msft','eps','brokerdetail','0D','end','-
1AY','fiscalperiod','1','broker','1140');
```

Example 2:

In this example the quarterly sales estimates for the second unreported fiscal quarter for Exxon Mobil as of now is extracted. The start and end dates would be looking at the broker detail estimates history from the end of last year, going back 2 quarters. The displayed broker estimates history is those being made from the end of last year going back 2 quarters from then. Only the estimates included in the consensus are display here.

> **Note:** Because the start date is the end of last year, the output does not reflect most recent estimates that are available for the company.

```
data = F.EstimatesOnDemand('xom','sales','brokerdetail','0Y','end','0Y-
2Q','fiscalperiod','2','periodtype','quarterly','showExcluded','N');
```

Example 3:

In this example, retrieve the broker detail of quarterly EPS estimates for the current unreported fiscal quarters for Exxon Mobil, Statoil and Chevron. But instead of extracting all 18 columns of data at once,

by using the fields parameter it is possible to specify a select number of columns. The first 5 columns listed in the table above are retrieved by default, but the remaining can be selected. Here the Analyst Name, the Broker Name, the Estimate and arrow indicating if available the direction of the estimate revision are displayed.

```
data = F.EstimatesOnDemand('xom,stl-no,cvx','eps','brokerdetail','0D',
'end','-2Q','fiscalperiod','1','periodtype','quarterly','fields',
'FE_ANALYSTNAME,FE_BROKERNAME,FE_ESTIMATE,FE_EST_REV_VAL_ARROW');
```

Example 4:

In this example, the estimates detail is to be extracted starting from the end of last calendar year, as indicated with the 0Y argument, going back 2 quarters from then, as indicated by the 0Y-2Q argument in the code. The display mode is set to HISTO, to indicate a historical look of the estimates.

> **Note:** When entering the optional display mode argument in the syntax, if utilizing HISTO for the historical look an 'end date' argument must be entered. If utilizing the SNAP mode, an 'end date' parameter is not needed unless looking for the current consensus less than 100 days old. Otherwise SNAP will bring back the current consensus as of the last 100 days.

```
data = F.EstimatesOnDemand('xom','sales','brokerdetail','0Y','end','0Y-
2Q','fiscalperiod','2','periodtype','quarterly','display','histo');
```

Example 5:

In this example, extract the broker detail EPS estimate history for the fiscal year 2007 for the Swedish company AarhusKarlshamn and display the report date. The date range is the first trade date and the consensus estimate report date. Extracting the report date allows for a direct comparison between the date of the estimate and the report date. In order to display the report date the 'reportDate','Y' argument must be used.

R:
```
data = F.EstimatesOnDemand('aak-se','eps','brokerdetail','P_FIRST_DATE',
'end','FE_ESTIMATE_DATE(RPT_DATE,EPS,ANNUAL,2007,\'YYYYMMDD\',NOW,,,\'\')',
'fiscalperiod','2007','periodtype','annual','display','histo','reportDate','Y
');
```

MATLAB:
```
data = F.EstimatesOnDemand('aak-se','eps','brokerdetail',
'P_FIRST_DATE', 'end','FE_ESTIMATE_DATE(RPT_DATE,EPS,ANNUAL,2007,
''YYYYMMDD'',NOW,,,'''')','fiscalperiod','2007','periodtype','annual','displ
ay','histo','reportDate','Y');
```

> **Note:** Single quotes in an FQL formula needs to be escaped by a backslash (R) or single quote (MATLAB).

Example 6:

In this example the latest Broker Detail data for Fiscal Year 2 Sales figures are extracted. The universe is limited so that only companies whose consensus has updated today (i.e. one of the underlying brokers has updated the estimate value today) is included.

```
data = F.EstimatesOnDemand('','SALES','brokerdetail','NOW','fiscalperiod',
'+2','universe','INTEGER(FE_ESTIMATE_DATE(LAST_DATE,SALES,QUARTERLY,+2,YYYYM
MDD,NOW))=P_DATE(NOW,DATEN)');
```

1.6 Estimates Report – Broker Snapshot

The Broker Snapshot function provides access to a historical snapshot of detail level broker estimates from the FactSet Estimates database. The difference between the FactSet Estimates BrokerSnapshot and the FactSet Estimates BrokerDetail reports is that the BrokerSnapshot provides a snapshot only and does not accept a date range, but the snapshot is an annual or quarterly roll argument to look at historical estimates. Estimates on a rolling basis return data for the current unreported fiscal year or quarter as of the date entered.

1.6.1 Data Fields extracted with the FactSet Estimates Broker Snapshot Report

The following table provides a detailed description of each of the 18 data fields that are by default retrieved when using the Broker Snapshot report.

Field Name	Description
SecId	The security identifier.
FE_FP_END	The date corresponding to the fiscal period type that is entered. For example, if the arguments entered in the syntax are fiscal period=1 and period type=annual, the relative date is FY1 which is the current unreported fiscal year for the company.
CURRENCY	The currency in which the selected estimate item is displayed.
FE_ITEM	The estimates item that is being retrieved, i.e. EPS.
FE_PER_REL	The relative fiscal period that is specified in the syntax. For example, when the syntax specified fiscal period=1 and period type=annual, the data is retrieved for the current unreported fiscal year for the company. This field retrieves a 1 for this example since the fiscal period argument is 1.
Date	The research date for the estimate item. This corresponds to the date of the report issued by a broker. Whenever a broker sends a new estimate or opinion, it is considered a research date. It reflects the date indicated in the actual report issued by the broker, not the date FactSet received it.
FE_BROKER	The FactSet Estimates Broker code. For a list of active brokers available in FactSet Estimates and their corresponding codes refer to Online Assistant page 14706.
FE_BROKERNAME	The Broker Name, i.e. Goldman Sachs.
FE_ANALYST	The code for the analyst. The code is based on a FactSet people map and allows brokers to control readership entitlements.
FE_ANALYSTNAME	The name of the Analyst making providing the estimate.
ENTRY_DATETIME	The entry date of the estimate.
FE_ESTIMATE	The detail estimate history from contributing brokers over specified date range for the specified period (i.e. EPS for FY1).
OTHER_CC	Consensus Class that pertains to a particular estimate. The details of this

	methodology described in section 2 above.
FE_SECTION	Indicates if according to the default FactSet Estimates consensus methodology the broker is included or excluded from the calculation.
FE_STATUS	Displays exclusion information. Explains the reason for the exclusion (i.e. Dropping Coverage).
FE_EST_REV_VAL	The previous estimate value from the same analyst, for the same fiscal period.
FE_EST_REV_VAL_ARROW	Retrieves a -1, 0, 1 or NA to indicate the direction of the estimate change from the analyst. A -1 indicates that the latest estimate value retrieved with FE_ESTIMATE is lower than the value retrieved with the previous estimate, retrieved with the field FE_EST_REV_VAL. A 0 indicates that there has been no change in the estimate. A 1 indicates that the latest estimate is higher than the previous value from the same analyst. An NA indicates that there was no previous value from that analyst for this security.
FE_EST_REV_VAL_DATE	Retrieves the research date of the previous estimate value that corresponds to FE_EST_REV_VAL.

Example 1:

In this example, retrieve the broker detail history for Earnings per Share (EPS) estimates for FactSet as of 5 actual years ago. The specified fiscal period is 1, which refers to the current unreported fiscal year, as of 5 years ago. So the request would be for broker estimate detail history for FY1 EPS, which is for the current unreported fiscal year – in the case of Microsoft in this example, FY1 as of 5 actual years ago is referring to the fiscal year ending on 06/2009.

> **Note:** The broker detail output for the EPS estimate includes all available estimates, including ones excluded from the consensus calculation and those contributing to GAAP.

```
data = F.EstimatesOnDemand('FDS-US','eps','brokersnapshot','-
5AY','fiscalperiod','1','periodtype','annual_roll');
```

With the output:

R:

```
   SecId  FE.FP.END CURRENCY FE.ITEM FE.PER.REL       Date FE.BROKER                  FE.BROKERNAME
1  FDS-US 2009-08-31      USD     EPS          1 2009-06-16       198                  William Blair …
2  FDS-US 2009-08-31      USD     EPS          1 2009-07-14      1124       The Benchmark Company, LLC
3  FDS-US 2009-08-31      USD     EPS          1 2009-06-16       570                  Piper Jaffray
4  FDS-US 2009-08-31      USD     EPS          1 2009-06-16      1360                     Auriga Usa
5  FDS-US 2009-08-31      USD     EPS          1 2009-06-16       498                  Oppenheimer
6  FDS-US 2009-08-31      USD     EPS          1 2009-06-16       477                      Needham
7  FDS-US 2009-08-31      USD     EPS          1 2009-06-16       125                       BofAML
…
```

MATLAB:

```
              SecId: 'FDS-US'
         FE_FP_END: [734016 734016 734016 734016 734016 734016 734016 734016 …]
          CURRENCY: {'USD'  'USD'  'USD'  'USD'  'USD'  'USD'  'USD'  'USD'  'USD'  'USD' …}
           FE_ITEM: {'EPS'  'EPS'  'EPS'  'EPS'  'EPS'  'EPS'  'EPS'  'EPS'  'EPS' …}
        FE_PER_REL: [1 1 1 1 1 1 1 1 1 1 1 1 1 1 1]
              Date: [733940 733968 733940 733940 733940 733940 733940 733940 733851 …]
         FE_BROKER: [198 1124 570 1360 498 477 125 6 1479 8468 111 539 95 542 104]
     FE_BROKERNAME: {1x15 cell}
        FE_ANALYST: [19092 2319 6589 18726 10645 26089 25240 23974 17941 0 6589 16603 16244 0 0]
    FE_ANALYSTNAME: {1x15 cell}
    ENTRY_DATETIME: [733941 733972 733940 733941 733940 733940 733942 733941 733852 ...]
       FE_ESTIMATE: [2.8900 2.9100 2.8900 2.9600 2.8900 3.0600 2.8700 2.8700 NaN NaN NaN ...]
          OTHER_CC: [0 0 0 51 0 0 0 0 NaN NaN NaN NaN NaN NaN NaN]
        FE_SECTION: {1x15 cell}
         FE_STATUS: {1x15 cell}
```

```
      FE_EST_REV_VAL: [2.8500 NaN 2.8900 NaN 2.8900 3 NaN 2.8700 NaN NaN NaN NaN NaN NaN NaN]
FE_EST_REV_VAL_ARROW: [1 NaN 0 NaN 0 1 NaN 0 NaN NaN NaN NaN NaN NaN NaN]
 FE_EST_REV_VAL_DATE: [733849 NaN 733940 NaN 733940 733915 NaN 733940 733851 NaN NaN NaN NaN NaN NaN]
```

Note: Alternatively, it is possible to access the estimates for one broker over this date range by adding the broker code, i.e. Bernstein Research. The comprehensive list of broker codes can be accessed on Online Assistant page 14706.

Example 2:

In this example, retrieve the EPS estimates for the current unreported fiscal year (FY1) for two securities, Microsoft and IBM. The broker detail history is as of now for the current unreported fiscal year. When no period type is entered, the default is annual.

```
data = F.EstimatesOnDemand('msft,ibm','eps','brokersnapshot','0D',
'fiscalperiod','1');
```

Example 3:

In this example, retrieve the broker detail of quarterly EPS estimates for the current unreported fiscal quarters for Exxon Mobil, Statoil and Chevron. But instead of extracting all 18 columns of data at once, by using the fields parameter it's possible to specify a select numbers of columns. The first 5 columns listed in the table on the previous page are retrieved by default, but the remaining can be selected. Using the optional fields argument, display the Analyst Name, the Broker Name, the Estimate and arrow indicating if available the direction of the estimate revision.

```
data = F.EstimatesOnDemand('xom,stl-no,cvx','eps','brokersnapshot','-
2Q','fiscalperiod','2','periodtype','quarterly_roll','fields','FE_ANALYSTNAM
E,FE_BROKERNAME,FE_ESTIMATE,FE_EST_REV_VAL_ARROW');
```

Example 4:

In this example the broker detail history EPS data is extracted as of January 5th 2012. The universe is limited with the OFDB argument, specifically here to the constituents of the file MyOFDB as of 20120105.

```
data = F.EstimatesOnDemand('','EPS','brokersnapshot','20120105',
'fiscalperiod','1','ofdb','MyOFDB','ofdbDate','20120105');
```

1.7 Estimates Report – Consensus

The Consensus report provides access to consensus level estimates from the FactSet Estimates databaseThe data extracted by this report is accessible by using other functions such as ExtractFormulaHistory and ExtractDataSnapshot, but the value added of this function is that the default output includes more comprehensive consensus information in terms of the mean, median, high, low and standard deviation of estimates. This default output would entail making multiple requests using the other functions.

1.7.1 Consensus Methodology

The methodology used with the FactSet Estimates database is to group consensus estimates classes into estimate groups, according to the different accounting methodologies used by various brokers. The default consensus (class 0) regroups estimates according to FactSet Estimates methodology. The goal of FactSet Estimates consensus classes is to identify and exclude brokers that use a different methodology from the default methodology used by FactSet Estimates.

A consensus estimate is calculated for one class at a time because creating an average across different classes can be misleading. FactSet Estimates provides a more meaningful consensus estimate figure through the consensus class functionality. For example, in the insurance sector, some brokers make an estimate based on gross premium and others on net premium. If the FactSet Estimates methodology uses net premium as a default, then the estimates of the brokers who use gross premium will belong to a new class of consensus which will be different from the default class.

Broker estimates can be received and processed in a multitude of formats of the brokers choosing. The main two types of formats are manual contribution and automatic contribution. FactSet Estimates does not make or alter estimates received from contributors, but does however, convert currency (i.e., USD to EUR) and convert units (i.e., KM to Miles, Cubic feet to Barrels of Oil (BOE), etc.) when appropriate.

The “consensus window” refers to the time period associated with estimates used in the consensus. By default, consensus estimates calculated by FactSet are based on estimates that have been validated via broker research within the past 100 days. When an estimate does not exist in the past 100 days, typically for small cap companies, FactSet Estimates automatically selects the latest estimate received within a predetermined time period. This window is used to ensure that clients are analyzing meaningful consensus estimates.

1.7.2 Data Fields extracted with the FactSet Estimates Consensus Report

The following table provides a detailed description of each of the 17 data fields that are by default retrieved when using the Consensus report.

Field Name	Description
SecId	The security identifier.
FE_FP_END	The date corresponding to the fiscal period type that is entered. For example, if the arguments entered in the syntax are fiscal period=1 and period type=annual, the relative date is FY1 which is the current unreported fiscal year for the company.
CURRENCY	The currency in which the selected estimate item is displayed.
FE_ITEM	The estimates item that is being retrieved, i.e. EPS.
FE_PER_REL	The relative fiscal period that is specified in the syntax. For example, when the syntax specified fiscal period=1 and period type=annual, the data is retrieved for the current unreported fiscal year for the company. This field retrieves a 1 for this example since the fiscal period argument is 1.
Date	The date of the consensus estimate.
FE_MEAN	Consensus – Estimate Mean
FE_MEDIAN	Consensus – Estimate Median
FE_NUM_EST	Consensus – Number of Estimates
FE_LOW	Consensus – Lowest Estimate
FE_HIGH	Consensus – Highest Estimate
FE_STD_DEV	Consensus – Standard Deviation from Estimate
FE_UP	Consensus – Number of Estimates Revised Up
FE_DOWN	Consensus – Number of Estimates Revised Down
FE_UNCHANGED	Consensus – Number of Estimates Unchanged Revisions
FE_TOTAL	Consensus – Number of Total Estimates Revised
FE_MEPS_INFO	Estimate Description Label

Example 1:

In this example, retrieve for Microsoft the current consensus earnings per share (EPS) and capital expenditure estimates, for the current unreported fiscal year (FY1) and the next unreported fiscal year (FY2) of the company.

```
data = F.EstimatesOnDemand('msft','eps,capex','consensus','NOW',
'fiscalperiod','1,2','periodtype','annual');
```

With the output:

R:

```
  SecId  FE.FP.END CURRENCY FE.ITEM FE.PER.REL       Date     FE.MEAN  FE.MEDIAN FE.NUM.EST  FE.LOW FE.HIGH
1  MSFT 2015-06-30      USD     EPS          1 2014-08-15    2.744964    2.77256         30    2.47    3.15 …
2  MSFT 2016-06-30      USD     EPS          2 2014-08-15    3.196575    3.16500         26    2.93    3.84
3  MSFT 2015-06-30      USD   CAPEX          1 2014-08-15 6438.625000 6203.87500         14 5030.00 8795.00
4  MSFT 2016-06-30      USD   CAPEX          2 2014-08-15 6677.710000 6623.13000         13 5378.00 8999.00
…
```

MATLAB:

```
          SecId: 'MSFT'
       FE_FP_END: [736145 736511 736145 736511]
        CURRENCY: {'USD'  'USD'  'USD'  'USD'}
         FE_ITEM: {'EPS'  'EPS'  'CAPEX'  'CAPEX'}
      FE_PER_REL: [1 2 1 2]
            Date: [735826 735826 735826 735826]
         FE_MEAN: [2.7450 3.1966 6.4386e+03 6.6777e+03]
       FE_MEDIAN: [2.7726 3.1650 6.2039e+03 6.6231e+03]
      FE_NUM_EST: [30 26 14 13]
          FE_LOW: [2.4700 2.9300 5030 5378]
         FE_HIGH: [3.1500 3.8400 8795 8999]
      FE_STD_DEV: [0.1379 0.1891 988.9403 1.1078e+03]
          FE_UP: [5 11 5 4]
        FE_DOWN: [20 7 4 3]
    FE_UNCHANGED: [2 5 3 3]
       FE_TOTAL: [27 23 12 10]
   FE_MEPS_INFO: {'EPS - GAAP'  'EPS - GAAP'  'CAPEX - GAAP'  'CAPEX - GAAP'}
```

Example 2:

In this example, retrieve the historical consensus EPS estimates for Microsoft, for the current unreported fiscal year (FY1) and the next unreported fiscal year (FY2) of the company from the most recent fiscal year end going back 5 years, on a quarterly basis. When extracting historical consensus data, one fiscal period and one item can be specified per request.

```
data = F.EstimatesOnDemand('msft','eps,capex','consensus','0Y','end','-
5Y','freq','Q','fiscalperiod','1,2','periodtype','annual_roll');
```

> **Note:** To ensure that the estimate values historically are reflected on a rolling basis, ensure to specify periodtype as annual_roll or quarterly_roll.

Example 3:

In this example, retrieve the current EPS and book value per share estimates for the current unreported fiscal year (FY1) for Microsoft. Display only the mean consensus estimate.

> **Note:** By default, this report always returns the columns SecId, FE_FP_END, CURRENCY, FE_ITEM, FE_PER_REL and Date.

```
data = F.EstimatesOnDemand('msft','eps,bvps','consensus','NOW',
'fiscalperiod','1','periodtype','annual','fields','fe_mean');
```

Example 4:

In this example, extract the EPS and sales estimates for Apple as of now, compared to previous estimates 30 days ago.

> **Note:** When looking at previous estimates, data is displayed for the mean, median, number of estimates, low and high values.

```
data =
F.EstimatesOnDemand('aapl','eps,capex','consensus','NOW','fiscalperiod','1',
'periodtype','annual','previousDates','-30','fields','prev');
```

Example 5:

In this example the EPS consensus is extracted for all securities that had an update in the value within the last 3 days.

```
data = F.EstimatesOnDemand('','EPS','CONSENSUS','NOW',
'fiscalperiod','1','periodtype','ANNUAL','universe','INTEGER(FE_ESTIMATE_DAT
E(LAST_DATE,EPS,ANNUAL,+1,YYYYMMDD,NOW))>=P_DATE(-2,DATEN)');
```

Example 6:

In this example the Estimate Currency is displayed rather than the local currency, this is used because BHP Billiton (BHP-AU) is reporting in USD even though their local currency is Australian Dollar.

```
data = F.EstimatesOnDemand('BHP-AU','SALES','CONSENSUS',
'NOW','fiscalperiod','2','periodtype','ANNUAL','estCurrency','Y');
```

1.8 Estimates Report – Guidance

The Guidance report provides access to the estimates guidance that companies provide as an indication or estimate of their future earnings. FactSet Estimates provides high, low, and mean guidance estimates for companiesThe data extracted by this function is accessible by using other functions such as ExtractFormulaHistory and ExtractDataSnapshot, but the value added of this report is that the default output includes information in terms of the mean, high and low guidance values compared to the mean estimate based on the broker contributions. This default output would entail making multiple requests using the other functions.

1.8.1 Source of Guidance

Companies provide guidance as an indication or estimate of their future earnings. The estimate guidance is collected by FactSet from the following sources:

For U.S Companies:

- CallStreet Transcripts
- PR Newswire
- Business Wire
- CCN Matthews
- GlobeNewswire
- Market Wire

For European Companies:

- Financial Express Company Announcements
- Europe PR Newswire
- Hugin Southern Europe
- Hugin
- Europe Business Wire

For Japanese Companies:

- TDNet

1.8.2 Data Fields extracted with the FactSet Estimate Guidance Report

The following table provides a detailed description of each of the 12 data fields that can be retrieved when using the Guidance report.

Field Name	Description
SecId	The security identifier.
CURRENCY	The currency in which the selected estimate guidance item is displayed.
FE_ITEM	The estimates guidance item that is being retrieved, i.e. EPS.
FE_PER_REL	The relative fiscal period that is specified in the syntax. For example, when the syntax specified fiscal period=1 and period type=annual, the data is retrieved for the current unreported fiscal year for the company. This field retrieves a 1 for this example since the fiscal period argument is 1.
FE_MEAN_DATE	The research date for the estimate item. This corresponds to the date of the report issued by a broker. Whenever a broker sends a new estimate or opinion, it is considered a research date. It reflects the date indicated in the actual report issued by the broker, not the date FactSet received it.
Guidance Min	Guidance – Low Estimate
Guidance Max	Guidance – High Estimate
Guidance Mean	Guidance - Mean of High and Low
FE_MEAN	Consensus - Mean of Estimates
Guidance Min Date	Guidance Min Record Date
Guidance Max Date	Guidance Max Record Date
Guidance Mean Date	Guidance Mean Record Date

Example 1:

In this example, retrieve the earnings per share (EPS) guidance for IBMfor the current unreported fiscal year (FY1) and the next unreported fiscal year (FY2) of the company.

> **Note:** The output provides a comparative perspective with the FE_MEAN column to display the mean estimate calculated from the estimates provided by brokers covering the company versus the guidance estimates that the company itself provides.

```
data = F.EstimatesOnDemand('IBM','eps','guidance','NOW',
'fiscalperiod','1,2','periodtype','annual');
```

With the output:

R:

```
  SecId CURRENCY FE.ITEM FE.PER.REL FE.MEAN.DATE Guidance.Min Guidance.Max Guidance.Mean  FE.MEAN
Guidance.Min.Date
1   IBM      USD     EPS          1   2014-08-15          18          NaN          18 17.90034        2014-07-18 …
2   IBM      USD     EPS          2   2014-08-15          20          NaN          20 19.86470        2014-07-18
```

MATLAB:

```
                SecId: 'IBM'
```

```
          CURRENCY: {'USD'  'USD'}
            FE_ITEM: {'EPS'  'EPS'}
         FE_PER_REL: [1 2]
       FE_MEAN_DATE: [735826 735826]
       Guidance_Min: [18 20]
       Guidance_Max: [NaN NaN]
      Guidance_Mean: [18 20]
            FE_MEAN: [17.9003 19.8647]
  Guidance_Min_Date: [735798 735798]
  Guidance_Max_Date: [NaN NaN]
 Guidance_Mean_Date: [735798 735798]
```

Example 2:

In this example, retrieve the current EPS guidance for FMC Technologies (ticker FMI) for the current unreported fiscal year (FY1) of the company as of 12/31/2011. Display only the mean consensus estimate and the mean guidance estimate.

> **Note:** By default, this report always returns the columns SecId, CURRENCY, FE_ITEM and FE_MEAN_DATE.

```
data = F.EstimatesOnDemand('FTI','eps','guidance','12/31/2011',
'fiscalperiod','1','periodtype','annual','fields','FE_MEAN,Guidance Mean');
```

Example 3:

I this example the latest EPS Guidance data for Fiscal year 1 is brought back for all securities whose Guidance value has been updated today.

```
data = F.EstimatesOnDemand('','eps','guidance','NOW',
'fiscalperiod','1','periodtype','annual','universe','FE_GUIDANCE_DATE(DATEN,
EPS,ANNUAL,+1,YYYYMMDD,NOW)=TODAYC');
```

1.9 Estimates Report – Surprise

The Surprise report provides data to measure adjustments made to the consensus vis-à-vis corporate announcements. The data extracted by this function is accessible by using other functions such as ExtractFormulaHistory and ExtractDataSnapshot, but the value added of this report is that the default output includes more comprehensive overview of the change in consensus estimates before and after the surprise event as well as the effect on the security price. This default output would entail making multiple requests using the other functions.

1.9.1 Surprise Methodology

There are two types of Surprise calculations, either using the Actual or the post-event consensus.

The Actual is used as the default calculation for Australia, Japan, and the US geographic regions.
The post-event consensus is used for all other regions, primarily Europe. However, if there is no Actual present, then the post-event consensus will be used.

Surprise calculations are triggered by events, which include profit warnings, preliminary releases, or an earnings release, whether quarterly, semi-annual, or annual. The first event of the quarter will trigger the surprise calculation. Thus there can be more than one surprise calculation within a single quarter. Only after a company rolls will an Actual or Broker Actual be used. The Surprise Event is, by default, the first event of the quarter. In this case, the surprise calculation can be based on a profit warning if available, instead of a publication date.

The post-event consensus is continuously updated as relevant data is received until 100 days after the event. At that point the post-event consensus is finalized and thus the Surprise value for that fiscal period will remain static unless there is more than one event in the same quarter. If the two events occur within the same quarter and they are not 100 days apart, the first post-event consensus will be finalized as of just before the release of the second event.

Both annual and quarterly surprise values are calculated for every event. Either the quarterly or annual calculation must be designated by the user. Annual surprises are recalculated quarterly. The FactSet Estimates database assumes that recent quarterly results affect annual estimates. Thus, to retrieve a surprise figure as of the year end, the last fiscal quarter in the FactSet Estimates code should be referenced.

1.9.2 Data Fields extracted with the FactSet Estimates Surprise Report

The following table provides a detailed description of each of the 13 data fields that are by default retrieved when using the Surprise report.

Field Name	Description
SecId	The security identifier.
CURRENCY	The currency in which the selected estimate item is displayed.

FE_ITEM	The estimates item that is being retrieved, i.e. EPS.
FE_PER_REL	The relative fiscal period that is specified in the syntax. For example, when the syntax specified fiscal period=1 and period type=annual, the data is retrieved for the current unreported fiscal year for the company. This field retrieves a 1 for this example since the fiscal period argument is 1.
Surprise_Before_Event	Displays the Consensus figure one day prior to the surprise event. It can be displayed in several forms: median, mean, low, high, standard deviation, and number of estimates.
Surprise_After_Event	Displays the Consensus figure post the surprise event. It can be displayed in several forms: median, mean, low, high, standard deviation, and number of estimates.
Surprise_Amount	Displays the value of surprise after minus surprise before.
Surprise (%)	Displays the Surprise percentage, calculated as Surprise Amount/Surprise Before.
Price_Impact (%)	Displays the Impact Surprise amount has on the Stock Price. It is the percentage in price change between the dates before the report date and after. By default the price impact will calculate 1 day before and 0 day after the report date.
Surprise_Date	Surprise event date.
Surprise_Event	Description of the event surprise that the figures are based on.
Surprise_Period	Displays the fiscal period related to the surprise date.
Surprise_Date_Before_Event	Displays the date one day prior to a surprise event.

Example 1:

In this example, retrieve for Blackrock and for Bank of America the estimates surprise details for the companies' quarterly EPS as of 1/18/2012. The consensus figure is displayed using the estimates mean, as indicated by the 'statistic','mean' argument in the syntax below.

```
data = F.EstimatesOnDemand('blk,bac','eps','surprise','1/18/2012',
'fiscalperiod','0','periodtype','quarterly','statistic','mean');
```

With the output:

R:

```
SecId CURRENCY FE.ITEM FE.PER.REL Surprise.Before.Event Surprise.After.Event Surprise.Amount
Surprise.PCT Price.Impact.PCT
1    BLK      USD      EPS       0       4.467952        4.89    0.42204810     9.44612      0.4417197 …
2    BAC      USD      EPS       0       0.269351        0.19   -0.07935101 -29.46007     -1.8975344
```

MATLAB:

```
1x2 struct array with fields:

    SecId
    CURRENCY
    FE_ITEM
    FE_PER_REL
    Surprise_Before_Event
    Surprise_After_Event
    Surprise_Amount
```

```
Surprise_PCT
Price_Impact_PCT
Surprise_Date
Surprise_Event
Surprise_Period
Surprise_Date_Before_Event
```

Example 2:

In this example, retrieve for IBM the estimates surprise details for the company's annual EPS as of the reported date on 1/31/2012. The consensus figure is displayed using the estimates mean, as indicated by the 'statistic','mean' argument in the syntax below. Display only the surprise before and after event columns.

> **Note:** By default, this report always returns the columns SecId, CURRENCY, FE_ITEM and FE_PER_REL.

```
data = F.EstimatesOnDemand('ibm','eps','surprise','1/19/2012',
'fiscalperiod','0','periodtype','annual','statistic','mean','fields','Surpri
se_Before,Surprise_After');
```

Example 3:

In this example, extract for IBM the estimate surprise details as of the most recent annual report for EPS. Display the price impact, setting a window for calculating the price impact from 2 days before reporting EPS through 2 days after reporting.

```
data=F.EstimatesOnDemand('ibm','EPS','surprise','','fiscalperiod','0','perio
dtype','annual_roll','fields','price_impact','offset1','2','offset2','2');
```

> **Note:** When using the offset1 and offset2 parameters, one item and one fiscal period can be specified per data request. The syntax can alternatively be set up individually to be able to assess the price impact at different ranges.

```
data =
F.EstimatesOnDemand('ibm','eps','surprise','','fiscalperiod','0','periodtype
','annual_roll','fields','price_impact','offset1','1','offset2','2');
```

Example 4:

Here the EPS Surprise data is extracted for all securities with a surprise update today.

```
data =
F.EstimatesOnDemand('','EPS','SURPRISE','NOW','fiscalperiod','1','periodtype
','annual','universe','FE_SURPRISE_DATE(DATE,0,ANNUAL,0,YYYYMMDD,NOW)=TODAYC
');
```

1.10 Estimates Report – Consensus Recommendation

The Consensus Recommendation report provides access to the number of different recommendations given by brokers as well as the mean recommendation based on the recommendation mark mapping.

1.10.1 Recommendation Methodology

Recommendation data covers all broker recommendations received over the past 100 days. When a broker issues several recommendations over the past 100 days, only the most recent is retained.

Recommendations are divided into five broad categories: Buy, Overweight, Hold, Underweight, and Sell. Then, a rating of between 1 and 3 is attributed to each category according to the table below.

Recommendation Mark	Recommendation Name
1	Buy
1.5	Overweight
2	Hold
2.5	Underweight
3	Sell

The methodology used with the FactSet Estimates database is to keep recommendations consistent across the FactSet database. Not every broker uses the same recommendations that FactSet has in place. Therefore FactSet works with all of its contributors in order to correctly map their recommendations.

The Estimates database builds out a recommendation dictionary for each broker which tells exactly how each of their recommendations corresponds to FactSet's own categories. These recommendations can be changed at any time should a contributor begin to give new recommendations, or want to change their existing mapping. By doing so, FactSet ensure that its contributor recommendations are captured correctly in the Estimates Database.

1.10.2 Data Fields extracted with the FactSet Estimates Consensus Recommendation Report

The following table provides a detailed description of each of the 10 data fields that are retrieved when using the FactSet Estimates Consensus Recommendation report.

Field Name	Description
SecId	The security identifier.
Consensus Date	The consensus date for the mean recommendations.
FE_BUY	The aggregate number of buy recommendations.
FE_OVER	The aggregate number of overweight recommendations.

FE_HOLD	The aggregate number of hold recommendations.
FE_UNDER	The aggregate number of underweight recommendations.
FE_SELL	The aggregate number of sell recommendations.
FE_TOTAL	The aggregate number of recommendations.
FE_MARK	The mean recommendation.
FE_MARK_TEXT	The mean recommendation with text string; accessible only with 'meanText','Y'
FE_NO_REC	The aggregate number of brokers covering the security that are not providing a recommendation for the particular period.

Example 1:

In this example, extract the number of ratings for Facebook during the date range September 20, 2012 until most recent month end, on a monthly frequency.

```
data = F.EstimatesOnDemand('FB','','consensusreco','NOW',
'end','20120920','freq','M');
```

With the output:

R:

```
   SecId Consensus.Date FE.BUY FE.OVER FE.HOLD FE.UNDER FE.SELL FE.TOTAL  FE.MARK FE.NO.REC
1     FB     2014-07-31     34       5       4        0       0       43 1.151163         0
2     FB     2014-06-30     35       5       4        0       0       44 1.147727         0
3     FB     2014-05-30     35       5       4        0       0       44 1.147727         0
4     FB     2014-04-30     35       5       5        0       0       45 1.166667         0
5     FB     2014-03-31     32       5       9        0       0       46 1.250000         0
6     FB     2014-02-28     33       5       8        0       0       46 1.228261         0
…
```

MATLAB:

```
      SecId: 'FB'
Consensus_Date: [1x23 double]
        FE_BUY: [34 35 35 35 32 33 36 34 33 31 32 28 27 25 23 21 19 20 20 24 21 23 20]
       FE_OVER: [5 5 5 5 5 5 5 5 5 4 2 2 1 2 2 1 2 2 3 2 3 2 3]
       FE_HOLD: [4 4 4 5 9 8 5 4 5 8 9 11 12 9 11 14 16 14 15 12 12 11 16]
      FE_UNDER: [0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
       FE_SELL: [0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 2 2 2 1 1 2 3 2]
      FE_TOTAL: [43 44 44 45 46 46 46 43 43 43 43 41 40 36 37 38 39 38 39 39 38 39 41]
       FE_MARK: [1x23 double]
     FE_NO_REC: [0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
```

Example 2:

In this example, extract the number of ratings for Facebook during the date range September 20, 2012 until most recent month end, on a monthly frequency. Display only the total number of recommendations field.

> **Note:** By default this report always returns SecId.

```
data = F.EstimatesOnDemand('FB','','consensusreco','NOW',
'end','20120920','freq','M','fields','FE_TOTAL');
```

Example 3:

In this example, extract the ratings for IBM during the last year on a quarterly frequency. Here the Rating Name is displayed alongside the Rating Mark.

```
data = F.EstimatesOnDemand('IBM','','ConsensusReco','0','end','-
1y','freq','q','meantext','y');
```

Example 4:

In this example, extract the ratings for the constituents on the CAC 40 using the ISON code ISON_ENX_INDEX(PX1,10,CLOSE) to limit the universe.

```
data = F.EstimatesOnDemand('','','ConsensusReco','0','ison','ENX_INDEX',
'isonParams','PX1,10,CLOSE');
```

1.11 Estimates Report – Detailed Recommendation

The Detailed Recommendation report provides access to the number of different recommendations given by brokers.

1.11.1 Recommendation Methodology

Recommendation data covers all broker recommendations received over the past 100 days. When a broker issues several recommendations over the past 100 days, only the most recent is retained.

Recommendations are divided into five broad categories: Buy, Overweight, Hold, Underweight, and Sell. Then, a rating of between 1 and 3 is attributed to each category according to the table below.

Recommendation Mark	Recommendation Name
1	Buy
1.5	Overweight
2	Hold
2.5	Underweight
3	Sell

The methodology used with the FactSet Estimates database is to keep recommendations consistent across the FactSet database. Not every broker uses the same recommendations that FactSet has in place. Therefore FactSet works with all of its contributors in order to correctly map their recommendations.

The Estimates database builds out a recommendation dictionary for each broker which tells exactly how each of their recommendations corresponds to FactSet's own categories. These recommendations can be changed at any time should a contributor begin to give new recommendations, or want to change their existing mapping. By doing so, FactSet ensure that its contributor recommendations are captured correctly in the Estimates Database.

1.11.2 Data Fields extracted with the FactSet Estimates Detailed Recommendation Report

The following table provides a detailed description of each of the 10 data fields that are by default retrieved when using the FactSet Estimates Detail Recommendation report.

Field Name	Description
SecId	The security identifier.
FE_BROKER	The FactSet Estimates Broker code. For a list of active brokers available in FactSet Estimates and their corresponding codes refer to Online Assistant page 14706.
FE_BROKERNAME	The Broker Name, i.e. Goldman Sachs.
FE_ANALYST	The code for the analyst. The code is based on a FactSet people map and allows brokers to control readership entitlements.
FE_ANALYSTNAME	The name of the Analyst making providing the estimate.

FE_ESTIMATE	The detailed recommendation mark from contributing brokers over specified date range for the specified period (i.e. EPS for FY1).
FE_ESTIMATE_VALUE	The detailed recommendation name from contributing brokers over specified date range for the specified period (i.e. EPS for FY1).
FE_EST_REV_VAL	The previous estimate value from the same analyst, for the same fiscal period.
FE_EST_REV_VAL_ARROW	Retrieves a -1, 0, 1 or NA to indicate the direction of the recommendation change from the analyst. A -1 indicates that the latest recommendation value retrieved with FE_ESTIMATE is lower than the value retrieved with the previous estimate, retrieved with the field FE_EST_REV_VAL. A 0 indicates that there has been no change in the recommendation. A 1 indicates that the latest recommendation is higher than the previous value from the same analyst. An NA indicates that there was no previous value from that analyst for this security.

Example 1:

In this example, extract the broker recommendations for Facebook during the date range September 20, 2012 until most recent month end, on a monthly frequency.

```
data = F.EstimatesOnDemand('FB','','detailreco','NOW', 'end','20120920','freq','M');
```

With the output:

R:

```
  FS.PERM.SEC.ID FE.BROKER                   FE.BROKERNAME FE.ANALYST      FE.ANALYSTNAME       DATE
FE.ESTIMATE
1             FB      1140            Bernstein Research      27480     Carlos Kirjner 2014-08-14         2.0 ...
2             FB      1190             Cantor Fitzgerald       9090  Youssef H. Squali 2014-08-13         1.0
3             FB       548               Stifel Nicolaus      15265       Scott Devitt 2014-08-11         1.0
4             FB       232                   Erste Group      39687   Martin Krajhanzl 2014-08-07         1.0
5             FB       376                 Argus Research      18799      Joseph Bonner 2014-07-28         2.0
6             FB       852    SunTrust Robinson Humphrey       8756     Robert S. Peck 2014-07-25         1.0
…
```

MATLAB:

```
          FS_PERM_SEC_ID: 'FB'
               FE_BROKER: [1x44 double]
           FE_BROKERNAME: {1x44 cell}
              FE_ANALYST: [1x44 double]
          FE_ANALYSTNAME: {1x44 cell}
                    DATE: [1x44 double]
             FE_ESTIMATE: [1x44 double]
       FE_ESTIMATE_VALUE: {1x44 cell}
          FE_EST_REV_VAL: [1x44 double]
    FE_EST_REV_VAL_ARROW: [0 0 NaN 0 0 0 0 0 NaN 0 0 0 0 0 0 0 0 0 0 0 …]
```

1.12 Estimates Report – Coverage

The Analyst Coverage Report allows a user to specify what analyst they are looking for and returns all of the securities that they currently cover. It also gives the user the analyst's latest recommendation, EPS or FFO estimates.

1.12.1 Data fields extracted with the FactSet Estimates Coverage report

The following table provides a detailed description of each of the 12 data fields that are by default retrieved when using the FactSet Estimates Coverage report.

Field Name	Description
COMPANY	FactSet Estimates Company Name
TICKER	Ticker
COUNTRY	FactSet Estimates Company Name
CURRENCY	Default currency in which company trades
RATING	Analyst Recommendation
RECOM_DATE	Recommendation Record Date
EPS_VALUE	Analyst estimate for EPS
EPS_DATE	EPS Record Date.
CNS_CLASS_EPS	Consensus Class EPS is available in
FFO_VALUE	Analyst estimate for FFO
FFO_DATE	FFO Record Date
FFO_CNS_CLASS	Consensus Class FFO is available

Example 1:

In this example, extract the securities that are being covered by analyst 3891. For a list of active brokers available in FactSet Estimates and their corresponding codes refer to Online Assistant page 14706.

```
data = F.EstimatesOnDemand('3891','','coverage','');
```

With the output:
R:

```
                        Company    Ticker                  Country Currency Rating
1    TIM Participacoes SA (Ordinary) TIMP3-BR                  Brazil      BRL    Buy …
2 Telefonica Brasil S.A. (Preferred) VIVT4-BR                  Brazil      BRL    Buy
3                            AT&T Inc     T-US United States of America      USD   Hold
4             Verizon Communications    VZ-US United States of America      USD    Buy
5                         Apple Inc.  AAPL-US United States of America      USD    Buy
```

MATLAB:

```
1x5 struct array with fields:

    Company
    Ticker
    Country
    Currency
    Rating
    Recom_Date
    EPS_VALUE
    Eps_Date
    Cns_Class_EPS
    FFO_VALUE
    FFO_DATE
    FFO_Cns_Class
```

Note: This report is only available for 1 analyst only

2 APPENDIX

Table 1: Items for which estimates available with EstimatesOnDemand

Description	Item Code
Adjusted Funds From Operations	AFFO
Annual Subscription Value	ASV
Tangible Book Value per Share	BPS_TANG
Book Value Per Share	BVPS
Capital Expenditures	CAPEX
Cash Flow From Financing	CFF
Cash Flow From Investing	CFI
Cash Flow From Operations	CFO
Cash Flow Per Share	CFPS
CurrentAssets	CURRENTASSETS
CurrentLiabilities	CURRENTLIABILITIES
EPS - Non GAAP	CUSTOM_EPS
Dividends Per Share	DIV
Reported Earnings Per Share	EAG
Earnings Per Share Excluding Exceptionals	EBG
EBIT	EBIT
EBITDA	EBITDA
Earnings Per Share	EPS
EPS - Non GAAP ex. SOE	EPSA
EPS - GAAP	EPSR
Stock Option Expense	FASB123IMP
Free Cash Flow	FCF
Free Cash Flow Per Share	FCFPS
Funds From Operations	FFO
Adjusted Funds From Operations	FFOA
Gross Income	GROSSINCOME
Interest Expense	INTEXP
Long Term Growth	LTG
Number of Shares	NBTITB
Number of Shares Basic	NBTITBAS
Net Income - Non Consolidated	NET_P
Net Profit Adjusted	NETBG
Net Debt	NETDEBT
Declared Dividend Per Share	NETDIV
Net Profit	NETPROFIT
Net Income Adjusted	NETPROFITA
Pretax Income	PTP
Pre Tax Income - Non Consolidated	PTP_P
Pre-Tax Profit Reported	PTPBG

Pretax Income - Reported	PTPR
Research And Development	RD_EXP
Selling And Marketing	S_M_EXP
Sales	SALES
Sales - Non Consolidated	SALES_P
Same Store Sales	SAMESTORESALES
Selling, General and Administrative Expense	SGA
Shareholder's Equity	SH_EQUITY
Shares Basic	SHARB
Shares Diluted	SHARD
Shareholder's Equity	SHEQUITY
Shares Dilute	SHR
Shares Basic	SHRB
Number of Shares Basic	SHRBLA
Shares	SHRLA
Stock Option Expense	SOE
Tax Expense	TAX_EXPENSE
Book Value per Share - Tangible	TBVPS
Target Price	TGP
Total Debt	TOTALDEBT
Total Assets	TOTASSETS
Total Goodwill	TOTGW
Total Revenue	TOTREV
Airlines	
Airlines - Available Seat Km	AVAILABLESEATKM
Airlines - Load Factor	LOADFACTOR
Airlines - Operating Expenses per ASK	OPEX_ASK
Airlines - Passenger Revenue Km	REVPASSENGERKM
Airlines - Passenger Revenue per ASK	PASS_REV_ASK
Airlines - Passenger Revenue per RPK	PASS_REV_RPK
Airlines - Revenue Passenger	REV_PASSENGER
Airlines - Total Revenue per ASK	TOT_REV_ASK
Airlines Operating Expenses per ASK excluding fuel costs	OPEX_ASK_X
Banks	
Bank - ASSETS_NONPERF	ASSETS_NONPERF
Bank - Average Earnings Assets	AVG_EARN_ASSETS
Bank - AVG_EARN_ASSETS	AVG_EARN_ASSETS
Bank - DEPS_AVG	DEPS_AVG
Bank - INT_INC_MARGIN	INT_INC_MARGIN
Bank - LOAN_NET_AVG	LOAN_NET_AVG
Bank - Net Charge Offs	NET_CHARGE_OFFS
Bank - Net Interest Margin	INT_INC_MARGIN
Bank - NET_CHARGE_OFFS	NET_CHARGE_OFFS

Bank - Non performing Loans	LOAN_NONPERF
Bank - Non-Performing Assets	ASSETS_NONPERF
Bank - Operating Expense	OperExpen
Bank - Tier 1 Common Capital Ratio	COMCAP_RATIO_TIER1
Bank - Capital Adequacy Ratio - Tier 1 - Banks	CAP_RATIO_TIER1
Bank - Cost to Income	COST_INCOME
Bank - Income from Fees & Commissions	INC_FEES
Bank - Net Interest Income	NetInterestInc
Bank - Net Loans	LOAN_NET
Bank - Provisions for Credit Losses	ProvLoans
Bank - Risk Weighted Assets	ASSETS_RISK_WGHT
Bank - Total Deposits	DEPS
Bank - Trading Income	TradInc
Education	
Education - New Student Enrollment	STUDENTENROLL_NEW
Education - Total Student Enrollment	STUDENTENROLL_TOT
Commodities	
Commodities - Mean Target Price	MTGP
Home Builders	
Home Builders - Backlog Avg Price	BACKLOG_AVG_PRICE
Home Builders - Backlog Units	BACKLOG_UNITS
Home Builders - Backlog Value	BACKLOG_VALUE
Home Builders - Deliveries Average Price	DELIVERIES_AVG_PRICE
Home Builders - Deliveries Units	DELIVERIES_UNITS
Home Builders - Financial Services	FIN_SERVICES
Home Builders - Home Sales	HOME_SALES
Home Builders - Land Sales	LAND_SALES
Home Builders - Orders Avg Price	NEW_ORDERS_AVG_PRICE
Home Builders - Orders Units	NEW_ORDERS_UNITS
Home Builders - Orders Value	NEW_ORDERS_AVG_VALUE
Hospitals	
Hospitals - Other Operating Expenses	OTHER_OPEX
Hospitals - Provision for Bad Debt	BAD_DEBT_PROV
Hospitals - Salaries and Benefits	SAL_BENEFITS
Hospitals - Same Store Adjusted Admissions	SS_ADJ_ADM
Hospitals - Same Store Admissions	SS_ADM
Hospitals - Same Store Revenue per Adjusted Admissions	SS_REV_PER_ADJ_AM
Hospitals - SUPPLIES	SUPPLIES
Hotels	
Hotels - Revenue per Available Room-International	RevPar_intl
Hotels - ADR	Adr_Tot
Hotels - ADR - Dom.	ADR_Dom
Hotels - ADR - Intl.	ADR_Intl

Hotels - Occupancy % Dom	Occupancy_dom
Hotels - Occupancy % Intl	Occupancy_intl
Hotels - Occupancy % Total	Occupancy_tot
Hotels - RevPAR	RevPar_tot
Hotels - RevPAR - Dom	RevPar_Dom
Insurance	
Combined Ration	COMBINED_RATIO
Embedded Value	EMBEDDED_VALUE
Insurance - Gross Premiums Written	GROSS_PREM_WRITTEN
Insurance - Net Investment Income	RevPar_intl
Insurance - Net Premiums Earned	PREM_EARN
Insurance - Net Premiums Written	PREM_WRITTEN
Mining	
Mining - Cash Cost	CASH_COST
Mining - Realized Price	REAL_PRICE
Mining - Total Production	TOTAL_PROD
Multi Financial	
Multi Financial - Asset Under Management Average	AUM_AVG
Multi Financial - Asset Under Management End of the Period	AUM
Multi Financial - Long Term Flows	LT_FLOWS
Multi Financial - Net Flows	NETFLOWS
Oil Companies	
Debt-Adjusted Cash Flow	DACF
Oil companies - 1P Proved Reserves	Proved_1P
Oil companies - 2P Proved and Probable Reserves	Proved_2P
Oil companies - 3P Proved Probable and Possible Reserves	Proved_3P
Oil companies - Chemicals Income	Chemicals_OpInc
Oil companies - Chemicals Income - Dom	CHEM_DOM
Oil companies - Chemicals Income - Intl	CHEM_INTL
Oil companies - Downstream Income - Dom	R_M_DOM
Oil companies - Downstream Income - Downstream	R_M_OPINC
Oil companies - Downstream Income - Intl	R_M_INTL
Oil companies - Exploration Expense	Exploration_Exp
Oil companies - OPEX Per Unit	OPEX_UNIT
Oil companies - Production Per Day	PRODPERDAY
Oil companies - Production Per Day - Natural Gas	PROD_DAY_GAS
Oil companies - Production Per Day - Oil & NGLs	PROD_DAY_OIL
Oil companies - Realized Price	REAL_PRICE
Oil companies - Realized Price - Natural Gas	REAL_PRICE_GAS
Oil companies - Realized Price - Oil & NGLs	REAL_PRICE_OIL
Oil companies - Upstream	E_P_OPINC
Oil companies - Upstream Income - Dom	E_P_DOM
Oil companies - Upstream Income - Intl	E_P_INTL

Total Production	TOTAL_PROD	
Real Estate		
Real Estate - Adjusted Funds from Operations	AFFO	
Real Estate - Funds from Operations	FFO	
Real Estate - Net Asset Value per Share	NAVPS	
Real Estate - Net Asset Value per Share - NTM	RNAVPS	
Retailers		
Retailers - # of Stores Opened	StoresOpened	
Retailers - # Stores at Period End	StoresEnd	
Retailers - # Stores at Period End - Intl.	StoresEnd_I	
Retailers - # Stores at Period End- Dom.	StoresEnd_D	
Retailers - # Stores Closed During Period	StoresClosed	
Retailers - # Stores Closed During Period - Dom.	StoresClosed_D	
Retailers - # Stores Closed During Period - Intl.	StoresClosed_I	
Retailers - # Stores Opened During Period - Dom.	StoresOpened_D	
Retailers - # Stores Opened During Period - Intl.	StoresOpened_I	
Retailers - # Stores Relocated During Period	StoresReloc	
Retailers - # Stores Relocated During Perioud - Dom.	StoresReloc_D	
Retailers - # Stores Relocated During Perioud - Intl.	StoresReloc_I	
Retailers - Net Sales per Retail Square Foot	NetSalesRetailSq	
Retailers - Same Store Sales	SameStoreSales	
Retailers - Same Store Sales Dom.	SameStoreSales_D	
Retailers - Same Store Sales INTL.	SameStoreSales_I	
Retailers - Same Store Sales Monthly	SAMESTORESALESM	
Retailers - Selling Space Sq. Ft. (Gross)	SellingSpace	
Retailers - Selling Space Sq. Ft. (Gross)- Dom	SellingSpace_D	
Retailers - Selling Space Sq. Ft. (Gross)- Intl	SellingSpace_I	
SSS_WMT	SSS_WMT	
SSS_WMT_samsclub	SSS_WMT_samsclub	
Telecom		
ACCESS LINES		ACCESS_LINES
Average Revenue Per User	ARPU	
CHURN	CHURN	
Cost per Gross Add	CPGA	
Gross Adds	GROSS_ADDS	
Minute of Use	MOU	
Net Adds	NET_ADDS	
Number of Subscribers	SUBSCRIBERS_NB	
Subscriber Acquisition Cost	SAC	