BLOOMBERG FUNDAMENTALS IN BQL
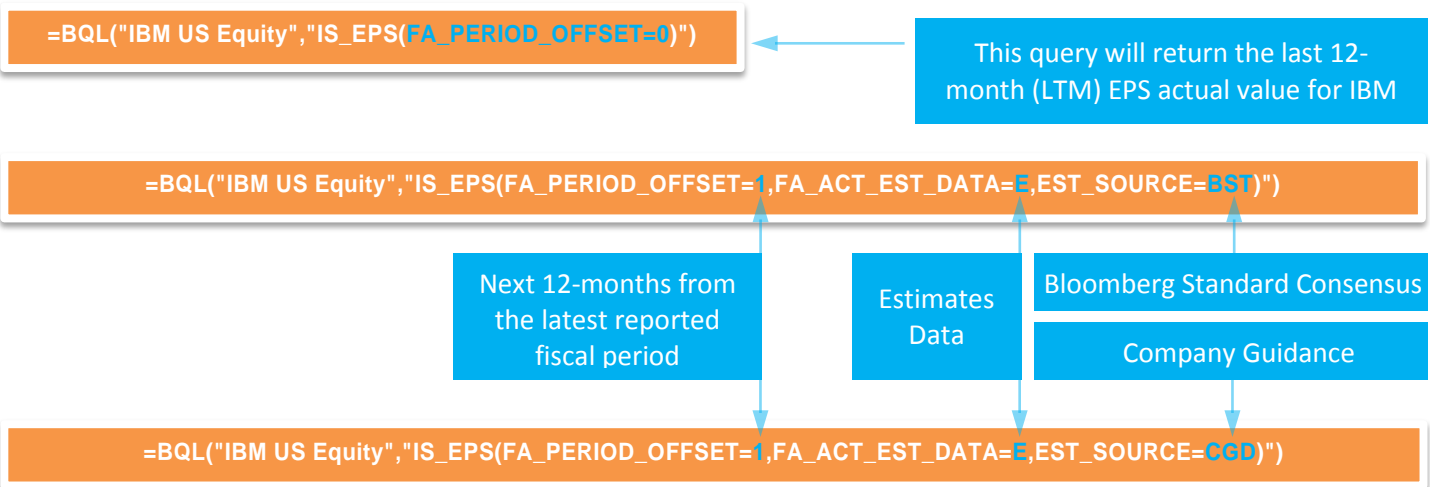
➢ *A single function for queries of both single-point and time-series data*

> =BQL("IBM US Equity","EBIT")

> =BQL("IBM US Equity","EBIT(FA_PERIOD_REFERENCE=RANGE(2012,2016))")

This query will return the latest (LTM) EBIT value for IBM

This query will return 5 data points with (LTM) EBIT values for IBM for 2012, 2013, 2014, 2015 and 2016
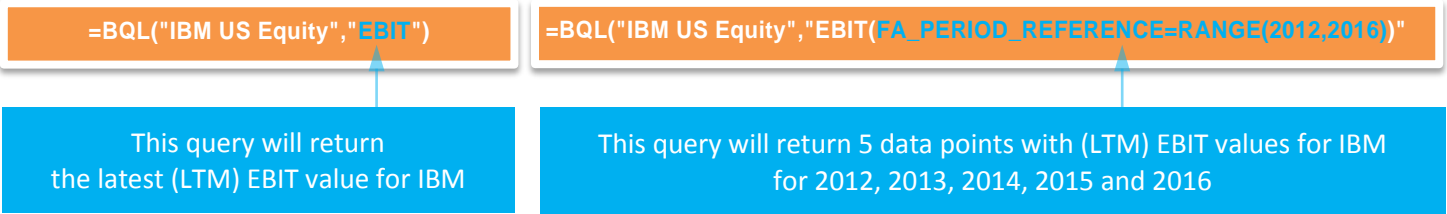
➢ *Ability to perform both data retrieval and transformations*

This query will return a single data point with the 5-year average EBIT value of IBM

> =BQL("IBM US Equity","AVG(EBIT(FA_PERIOD_REFERENCE=RANGE(2010,2016)))")
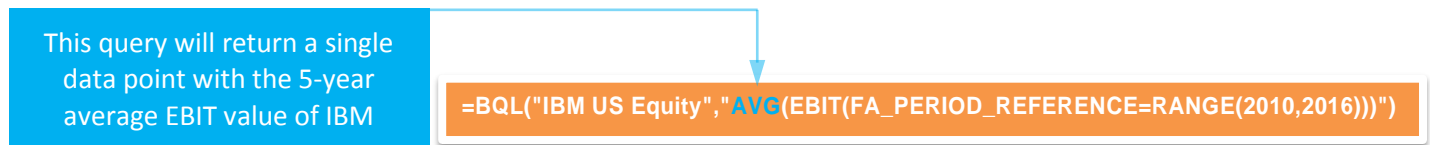
➢ *Alignment of actuals, estimates and guidance data*

> =BQL("IBM US Equity","IS_EPS(FA_PERIOD_OFFSET=0)")

This query will return the last 12-month (LTM) EPS actual value for IBM

> =BQL("IBM US Equity","IS_EPS(FA_PERIOD_OFFSET=1,FA_ACT_EST_DATA=E,EST_SOURCE=BST)")

Next 12-months from the latest reported fiscal period

Estimates Data

Bloomberg Standard Consensus

Company Guidance

> =BQL("IBM US Equity","IS_EPS(FA_PERIOD_OFFSET=1,FA_ACT_EST_DATA=E,EST_SOURCE=CGD)")

In all three queries above, a single field (IS_EPS) can be used with the parameter FA_PERIOD_OFFSET specifying an offset (which could be positive for future fiscal periods or negative for past fiscal periods) from the latest fiscal period reported by the company (fiscal period 0).The parameter FA_ACT_EST_DATA determines whether actuals (A) or estimates (E) data is returned and the parameter EST_SOURCE determines the source of the estimates data returned.
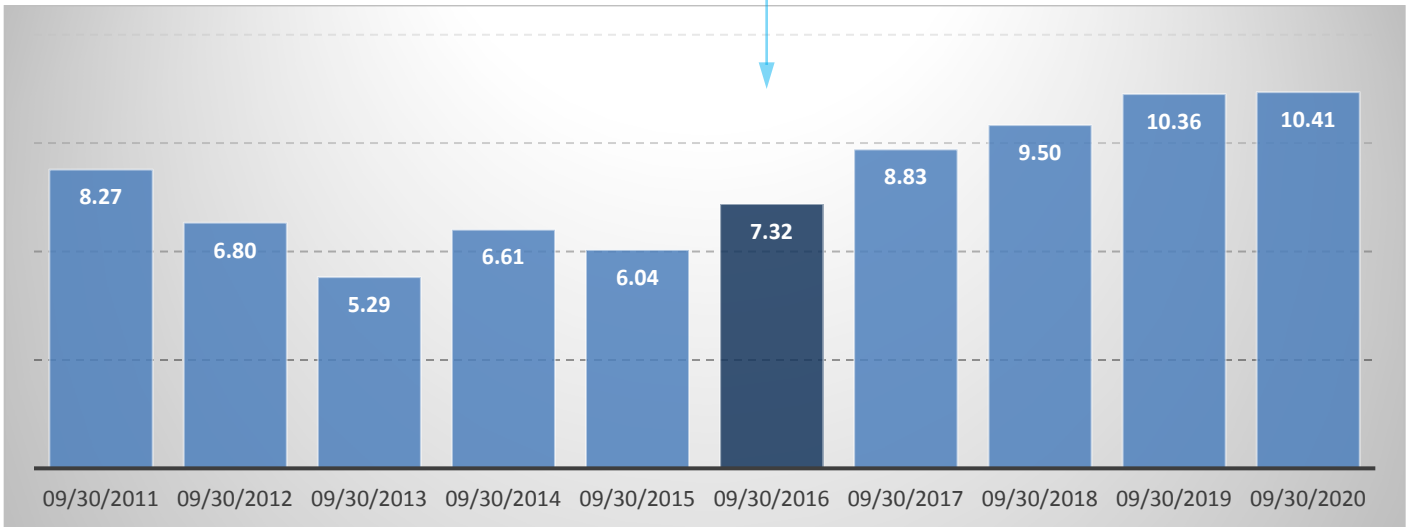
Requesting a time series of both actuals and estimates data requires a one query only. For example, this query will return annual EBIT data (shown in EUR billions here) for Siemens for a period of 10 years in the past and in the future. In this case the parameter FA_ACT_EST_DATA is set, by default, to "AE", i.e. Actuals data for reported and Estimates data for future periods.

Reported fiscal periods ← → **Future fiscal periods**

Latest period reported

	8.27	6.80	5.29	6.61	6.04	7.32	8.83	9.50	10.36	10.41
	09/30/2011	09/30/2012	09/30/2013	09/30/2014	09/30/2015	09/30/2016	09/30/2017	09/30/2018	09/30/2019	09/30/2020

➢ *Calendarization of financial reporting calendar*

A new parameter for the fiscal year end allows the alignment of financial data of companies following different fiscal year ends for their financial reporting. For example, the comps of Costco Wholesale have the following fiscal year end dates:

COMPANY	TICKER	FISCAL YEAR END	Calendar Year 2016							Calendar Year 2017			
			Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Costco Wholesale	COST US Equity	August	2016 Q4			2017 Q1			2017 Q2				
Wal-Mart Stores	WMT US Equity	January			2017 Q3			2017 Q4			2018 Q1		
Target	TGT US Equity	January			2017 Q3			2017 Q4			2018 Q1		
Dollar General	DG US Equity	January			2017 Q3			2017 Q4			2018 Q1		
Dollar Tree	DLTR US Equity	January			2017 Q3			2017 Q4			2018 Q1		
Five Below	FIVE US Equity	January			2017 Q3			2017 Q4			2018 Q1		
Big Lots	BIG US Equity	January			2017 Q3			2017 Q4			2018 Q1		
Dollarama	DOL CN Equity	January			2017 Q3			2017 Q4			2018 Q1		

Calendar 2016 Q4

Since the FA_PERIOD_YEAR_END parameter is set to a calendar year ending on December 31, than 2016 Q4 means a calendar quarter ending on 12/31/2016. Therefore, the query above will return for each company the fiscal quarters (highlighted) that overlap the most with the calendar quarter 2016 Q4.

The FA_PERIOD_YEAR_END parameter can also be set to follow the fiscal calendar of the company, in which case 2016 Q4 means a quarter ending in August 2016 for Costco, and the quarter ending in January 2016 for its comps.

➤ *New fiscal period types for blended data*

While the calendarization of financial reporting calendar across companies usually works well for aligning fiscal periods of companies that report on a quarterly basis, for companies reporting on a less frequent basis the misalignment of fiscal periods can still be significant unless data is blended from different fiscal periods reported by the company to create a new blended fiscal period which is a calculated by Bloomberg. For example, Vodafone's financial disclosure follows a fiscal year ending on March 31.

	Fiscal Year 2015		Fiscal Year 2016	
		25%	75%	

2014-03-31 **2015-03-31** **2016-03-31**

Blended Annual 2015

2014-12-31 **2015-12-31**
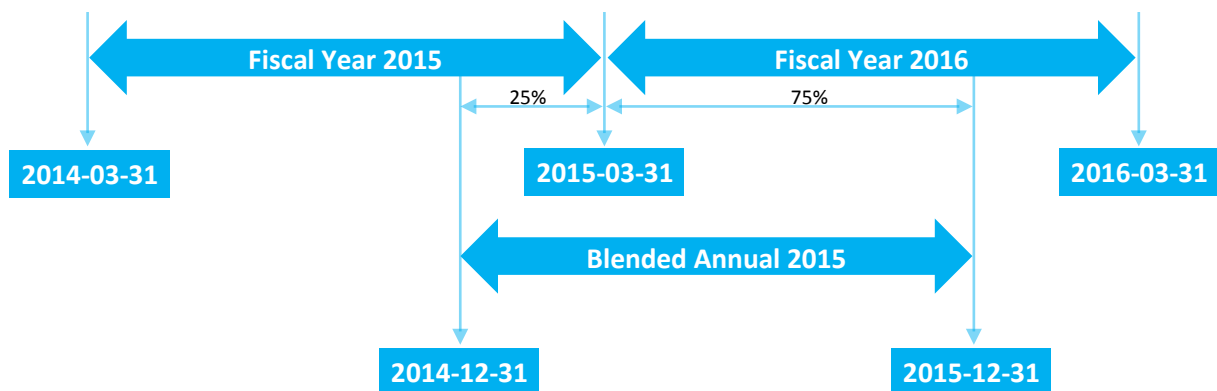
```
=BQL("VOD LN Equity","EBIT(FA_PERIOD_TYPE=BA, FA_PERIOD_YEAR_END=C1231,FA_PERIOD_REFERENCE=2015)")
```

This query will return the EBIT data for a Blended Annual period ending on December 31, 2015, calculated as the time-weighted average of the Vodafone's reported EBIT data from fiscal periods 2015A and 2016A, as shown above.

BQL Fundamentals also offers a Blended Trailing period type which dynamically links the period end date of the blended data to an observation date (or as-of-date).

```
=BQL("VOD LN Equity","EBIT(AS_OF_DATE=2017-03-22,FA_PERIOD_TYPE=BT,FA_PERIOD_OFFSET=1 )")
```

This query will return the EBIT data for a Blended Trailing period ending one year forward (on 2018-03-22) from today (2017-03-22) since the FA_PERIOD_OFFSET has been set to 1. In this example, it will be calculated as a time-weighted average of 3% of EBIT estimate from 2017A and 97% of EBIT estimate from 2018A for Vodafone.

2016-03-31

Fiscal Year 2017 (E)

2017-03-22

3%

2017-03-31

Blended Trailing

Fiscal Year 2018 (E)

97%

Requesting the same type of data as a time-series is also possible by using the range() function with the AS_OF_DATE, as shown below. Such query will return 10 daily data points, with each daily data point representing a blended trailing period ending exactly one year forward from that day. At the same time, the weights of 2017A estimate and 2018A estimate will dynamically change every day.

2018-03-22

2018-03-31
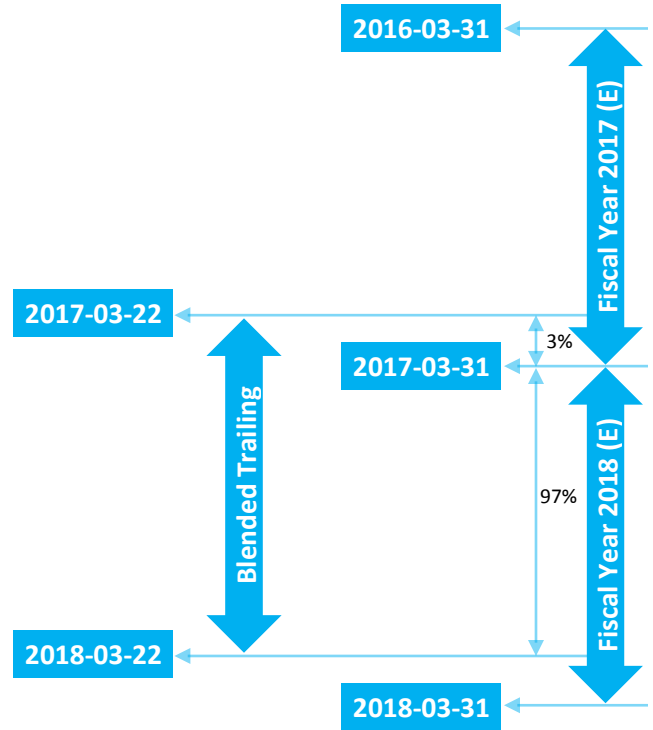
```
=BQL("VOD LN Equity","EBIT(AS_OF_DATE= range(2017-03-12,2017-03-22),FA_PERIOD_TYPE=BT,FA_PERIOD_OFFSET=1
```

Another important period type that BQL fundamentals introduces is the latest-12-month period (LTM) which is also the default period type for the FA_PERIOD_TYPE parameter (when not explicitly specified in the query). This period type eliminates the need for using separate fields for, for example, IS_EPS for a fiscal semiannual period vs TRAILING_12_MONTH_EPS for a trailing period. For example, the query below can be used to retrieve the LTM data for EPS for China Merchants Bank.

Latest LTM period reported

`=BQL("600036 CH Equity","IS_EPS(FA_PERIOD_TYPE=LTM,FA_PERIOD_OFFSET=range(-2Q,3Q))")`

2.38	2.43	2.46	2.41	2.42	2.43
6/30/2016	9/30/2016	12/31/2016	3/31/2017	6/30/2017	9/30/2017

This query will return actuals data for 3 reported LTM periods and estimates data for 3 future periods, in quarterly offsets from the latest reported LTM period.
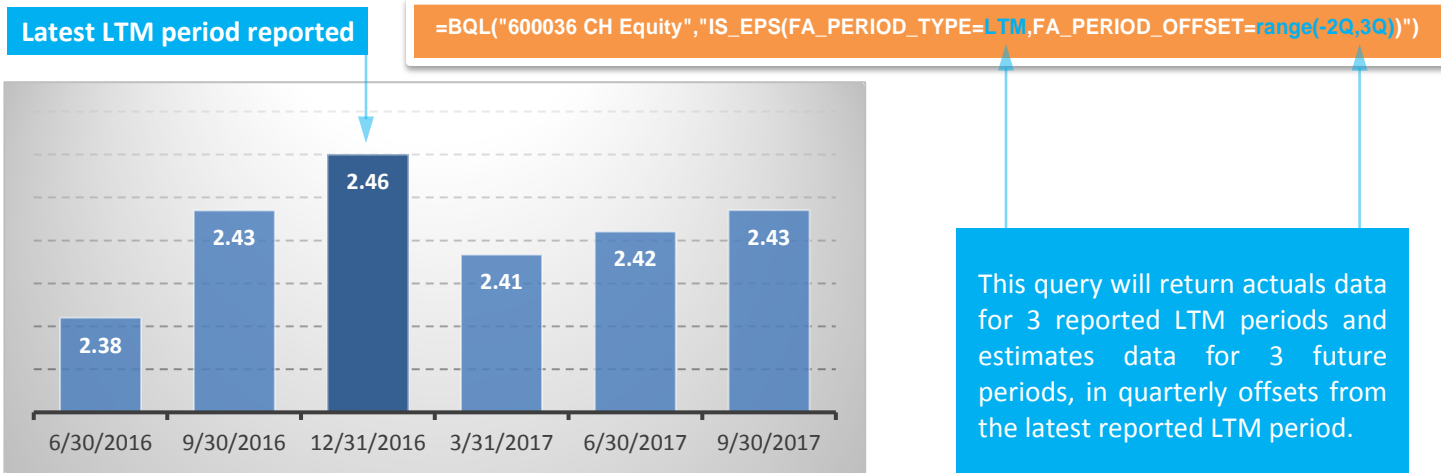
The LTM period type will automatically take into account the type of field that is being queried and, for example, for a field like IS_EPS will return the sum of the last 4 fiscal quarters or 2 fiscal semiannuals, whereas for a field like BS_TOT_ASSET will return the value from the latest fiscal quarter or the latest fiscal semiannual.

➢ *Point-in-time data*

BQL Fundamentals offers full capability of retrieving point-in-time data, both as a single data point as well as a time series of data via the AS_OF_DATE parameter. This is critical for properly aligning market data (like price or market capitalization) with fundamentals data. For example, the following query will return the price to earnings ratio for Banco Bradesco:

`=BQL("BBDC4 BZ Equity","PE_RATIO(AOD=range(2017-01-01,2017-03-22))")`

Banco Bradesco reported the 2016-12-31 earnings on 2017-02-02. The PE_RATIO is calculated by using the price of each day in the numerator divided by the 2016-09-30 LTM earnings (until 2017-02-01) and the 2016-12-31 LTM earnings (from 2017-02-02) in the denominator.

➢ *Legacy Fundamentals vs BQL Fundamentals*

The table below provides examples of common queries in Legacy Fundamentals functions BDP() and BDH() and how the same queries can be run via BQL Fundamentals

Description of the query	Legacy Fundamentals	BQL Fundamentals
Get total assets data for IBM for the latest quarter	=BDP("IBM US Equity", "BS_TOT_ASSET"," FUND_PER=Q")	=BQL("IBM US Equity","BS_TOT_ASSET","FA_PERIOD_TYPE=Q")
Get EPS data for Vodafone for the latest semiannual period	=BDP("VOD LN Equity", "IS_EPS"," FUND_PER=S")	=BQL("VOD LN Equity","IS_EPS","FA_PERIOD_TYPE=S")
Get the latest LTM EPS data for Vodafone	=BDP("IBM US Equity","TRAIL_12M_EPS_AFTER_XO","FUND_PER=S")	=BQL("VOD LN Equity","IS_EPS","FA_PERIOD_TYPE=LTM")
Get the estimated EPS GAAP data for the current fiscal year for Siemens	=BDP("SIE GR Equity","BEST_EPS_GAAP","BEST_FPERIOD_OVERRIDE=1FY")	=BQL("SIE GR Equity","IS_EPS","FA_PERIOD_TYPE=A","FA_PERIOD_OFFSET=1A")
Get the estimated EPS Adj data for next fiscal year for Siemens	=BDP("SIE GR Equity","BEST_EPS","BEST_FPERIOD_OVERRIDE=2FY")	=BQL("SIE GR Equity","IS_EPS","FA_PERIOD_TYPE=A","FA_PERIOD_OFFSET=2A"," FA_ADJUSTED=Y")
Get the estimated EPS Adj data for the next 12 months for Siemens	=BDP("SIE GR Equity","BEST_EPS","BEST_FPERIOD_OVERRIDE=1TY")	=BQL("SIE GR Equity","IS_EPS","FA_PERIOD_TYPE=LTM","FA_PERIOD_OFFSET=1 A","FA_ADJUSTED=Y")
Get the estimated EPS Adj data for the next 24 months for Siemens	Not supported	=BQL("SIE GR Equity","IS_EPS","FA_PERIOD_TYPE=LTM","FA_PERIOD_OFFSET=2 A","FA_ADJUSTED=Y")
Get the EPS GAAP guidance data for IBM for fiscal year 2017	=BDP("IBM US Equity","CEST_EPS_GAAP","BEST_FPERIOD_OVERRIDE=17Y"	=BQL("IBM US Equity","IS_EPS","FA_PERIOD_TYPE=A","FA_PERIOD_REFERENCE= 2017","EST_SOURCE=CGD")
Get annual EPS Adj actual data for the last 3 years and estimates data for the next 2 years	Not supported as a single query. The following steps are needed: 1. For the actuals part, run the following query: =BDH("IBM US EQUITY","IS_DIL_EPS_CONT_OPS","-2FY","-0FY","FUND_PER=Y") 2. For the estimates part, the =BDH() function can't be used to obtain fiscal period data for future fiscal period, but each individual data point can be obtained through the =BDP() function:	=BQL("IBM US Equity","IS_EPS","FA_PERIOD_TYPE=A","FA_PERIOD_OFFSET=RAN GE(-2,2)","FA_ADJUSTED=Y")

	Data Point 1: =BDP("IBM US Equity","BEST_EPS","BEST_FPERIOD_OVERRIDE=1FY") Data point 2: =BDP("IBM US Equity","BEST_EPS","BEST_FPERIOD_OVERRIDE=2FY") 3. Populate the appropriate cells in Excel with the formulas from step 1 and step 2 to create a single data stream	
Get annual EPS Adj estimates data from for the last 3 and for the next 2 years for IBM	Not supported as a single query. Five separate queries are needed for each of the data points requested: Data point 1: =BDP("IBM US EQUITY","BEST_EPS","BEST_FPERIOD_OVERRIDE=-2FY") ... Data point 5: =BDP("IBM US EQUITY","BEST_EPS","BEST_FPERIOD_OVERRIDE=2FY")	=BQL("IBM US Equity","IS_EPS","FA_PERIOD_TYPE=A","FA_PERIOD_OFFSET=RANGE(-2,2)","FA_ADJUSTED=Y","FA_ACT_EST_DATA=E")
Get current year's EPS Adj estimates data as of every day from December 1, 2016 to January 31, 2017 for IBM	=BDH("IBM US EQUITY","BEST_EPS","12/01/2016","01/31/2017","BEST_FPERIOD_OVERRIDE=1GY","DAYS=ALL","FILL=P") *Note: The "current year" will roll over on 12/31/2016 which is the period end date of IBM's fiscal year*	=BQL("IBM US EQUITY","IS_EPS","FA_ADJUSTED=Y","FA_PERIOD_TYPE=A","FA_PERIOD_OFFSET=1A","AS_OF_DATE=RANGE(2016-12-01,2017-01-31)","FILL=PREV") *Note: The "current year" will roll over on 01/19/2017 when IBM reported the earnings for the fiscal year ending on 12/31/2016*
Get the 1 year blended forward EPS Adj estimates as of every day from December 1, 2016 to January 31, 2017 for IBM	=BDH("IBM US EQUITY","BEST_EPS","12/01/2016","01/31/2017","BEST_FPERIOD_OVERRIDE=1BF","DAYS=ALL","FILL=P")	=BQL("IBM US EQUITY","IS_EPS","FA_ADJUSTED=Y","FA_PERIOD_TYPE=BT","FA_PERIOD_OFFSET=1","AS_OF_DATE=RANGE(2016-12-01,2017-01-31)","FILL=PREV")
Get the 1 year blended trailing EPS Adj actuals data as of every day from December 1, 2016 to January 31, 2017 for IBM	Not supported	=BQL("IBM US EQUITY","IS_EPS","FA_ADJUSTED=Y","FA_PERIOD_TYPE=BT","AS_OF_DATE=RANGE(2016-12-01,2017-01-31)","FILL=PREV")
Get the revisions history for the annual EPS Adj estimates data for the current year as of every day from December 1, 2016 to January 31, 2017 for IBM	=BDH("IBM US EQUITY","BEST_EPS","12/01/2016","01/31/2017","BEST_FPERIOD_OVERRIDE=1FY","DAYS=ALL","FILL=P")	=BQL("IBM US EQUITY","IS_EPS","FA_ADJUSTED=Y","FA_PERIOD_TYPE=A","FA_PERIOD_OFFSET=1FA","AS_OF_DATE=RANGE(2016-12-01,2017-01-31)","FILL=PREV")
Get the EPS Adj actuals LTM data as of every day from December 1, 2016 to January 31, 2017 for IBM	Not supported as a single query. A separate query is needed for every day: Data point 1: =BDP("IBM US EQUITY","T12M_DIL_EPS_CONT_OPS","FUNDAMENTAL_PUBLIC_DATE=20161201") ... Data point 62: =BDP("IBM US EQUITY","T12M_DIL_EPS_CONT_OPS","FUNDAMENTAL_PUBLIC_DATE=20170131")	=BQL("IBM US EQUITY","IS_EPS","FA_ADJUSTED=Y","AS_OF_DATE=RANGE(2016-12-01,2017-01-31)","FILL=PREV")

> ➤ *Additional resources*

    ✓ For a detailed overview of the Bloomberg Query Language syntax run HELP BQLX <GO> on the Bloomberg Terminal.

    ✓ For a detailed overview of the BQL Fundamentals parameters, parameter default values and available parameter inputs consult the BQL Fundamentals Technical Documentation in the Brochures section on HELP BQLX <GO>.

    ✓ For templates in Excel powered by BQL, run XLTP BQL <GO>.

CONTACT US

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