LSEG Academy

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LSEG I/B/E/S via WRDS

LSEG

About LSEG Academy

- **Learn Anytime, Anywhere:** 500+ on demand courses
- **Instructor-Led Classes:** Interactive, multiple languages
- **Market Insights & Intelligence:** Experts deliver industry market and briefing sessions
- **Certifications:** Learn essential skills and receive foundational certifications

Visit the LEARNING CENTRE

Trade Compliance

Store all your trades, media chats with a fu Global Relay.

LSEG Data Library for Python

Data Analysis

Analytics: LSEG Yield Book

The Municipal Markets

Getting Started

Discover the available features, build your layout, and explore useful apps for Fixed Income users.

Start Learning →

Traders

VIDEO COURSE

Leverage LSEG Solutions for identifying trading opportunities in the market, access real time pricing, reliable & accurate news and utilize our trading capabilities.

Workspace • Continuous Learning • 87 min

Sales

VIDEO COURSE

Discover the LSEG Solution for Sales professionals to identify market trends, analyze valuable insights, facilitate trades, and manage relationships effectively.

Workspace • Continuous Learning • 79 min

Middle and Back Office

VIDEO COURSE

Learn more about how LSEG supports Middle and Back Office functions to effectively manage business transactions and minimize business risks.

Workspace • Continuous Learning • 15 min

Risk Manager

VIDEO COURSE

Access the data and insights you need to monitor credit and market risk.

Workspace • Continuous Learning • 44 min

LSEG Academy

CORPORATE

Disclaimer

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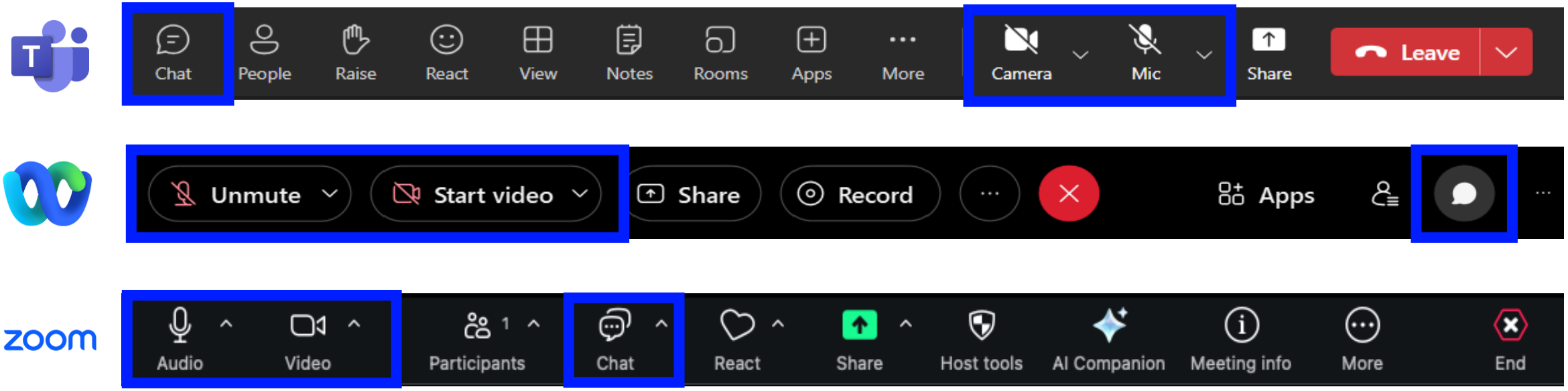
Session Guidance

This session is being recorded for replay

- **Ask** Questions via the Chat
- **Mute** Microphone
- **Turn Off** Camera



Agenda

1. LSEG Datasets on WRDS
2. Brief of LSEG I/B/E/S
3. Web Query LSEG I/B/E/S in WRDS
4. SQL Query for LSEG I/B/E/S via WRDS JupyterLab

LSEG Datasets on WRDS

London Stock Exchange Group(LSEG)

- Financial markets infrastructure and data provider
- 40,000+ institutions
- 190 countries
- Data and insights, Trading Platforms, Open data and technology platforms
- Trading, Investment, Wealth Management, Market Data Management, Risk & Compliance

LSEG

Company History

REFINITIV

1850 – Pigeon

Paul Julius Reuter used carrier pigeons and the new Calais-Dover cable to transmit stock market quotations

1858 – Cable

Cable from GB to U.S. laid, enabling Reuters to expand its expertise in global currency exchange

1865 – Telegraph

Reuters first to report President Lincoln assassination by telegraphing news to London

1964 – StockMaster

Market prices carried from New York to London for delivery around Europe on Stockmaster machines

1973 – Monitor

Monitor Money Rates Service launches, creating the first electronic marketplace for FX

1989 – Dealing 2000

enabling automated communication between traders and their back office

1999 – Reuters 3000Xtra

Gives live prices from global stock, commodity, futures, derivative and bond markets as well as FX price makers

2007 – THOMSON REUTERS

Thomson and Reuters combined to form Thomson Reuters

2010~2017 – Eikon, Elektron, Eikon App Stuio, Elektron Data Platform, Open Cloud

2018 – REFINITIV

Formation

2019 – Refinitiv Data Platform

2020 – Refinitiv Workspace

LSEG

- Data & Analytics
- FTSE Russell
- London Stock Exchange
- FX
- Post Trade
- Risk Intelligence

London Stock Exchange Group

1698

At Jonathan's Coffee House, John Castaing begins issuing a list of stock and commodity prices called 'The Course of the Exchange and other things

1801

The first regulated modern exchange comes into existence, **London Stock Exchange**

1986

The UK market is deregulated in the 'Big Bang'.

1995

AIM, LSE's Alternative Investment Market, is founded

2001

LSE became a public company

2007

LSE merged with **Milan Stock Exchange** to create **London Stock Exchange Group**

2009

LSEG completes the purchase of a majority stake of **Turquoise**

2010

LSEG acquired **MillenniumIT**

2013

LSEG completes the purchase of a majority stake in **LCH Group**

2014

LSEG completes the acquisition of **Frank Russell** Company

2015

FTSE and Russell Indexes come together as **FTSE Russell**

2017

LSEG completes the acquisition of **Mergent, Yield Book** and **Citi Fixed Income Indices**

2019

LSEG acquires **Beyond Ratings**

LSEG Content to Power Academic Research

I/B/E/S, Worldscope, Datastream, Lipper, StarMine, SDC, DealScan, FTSE, Dun & Bradstreet, Mergent

Estimates

- I/B/E/S Estimates
- I/B/E/S Guidance
- I/B/E/S Global Aggregates
- I/B/E/S KPI

Financials

- LSEG Financials

Ownership

- Global Ownership Holdings
- Institutional Holdings (13F)
- Mutual Fund Holdings
- Insider Filings

Deals

- SDC Mergers & Acquisitions
- SDC New Issues
- Dealscan

Economics

- LSEG Datastream

Funds

- LSEG Lipper Hedge Fund (TASS)

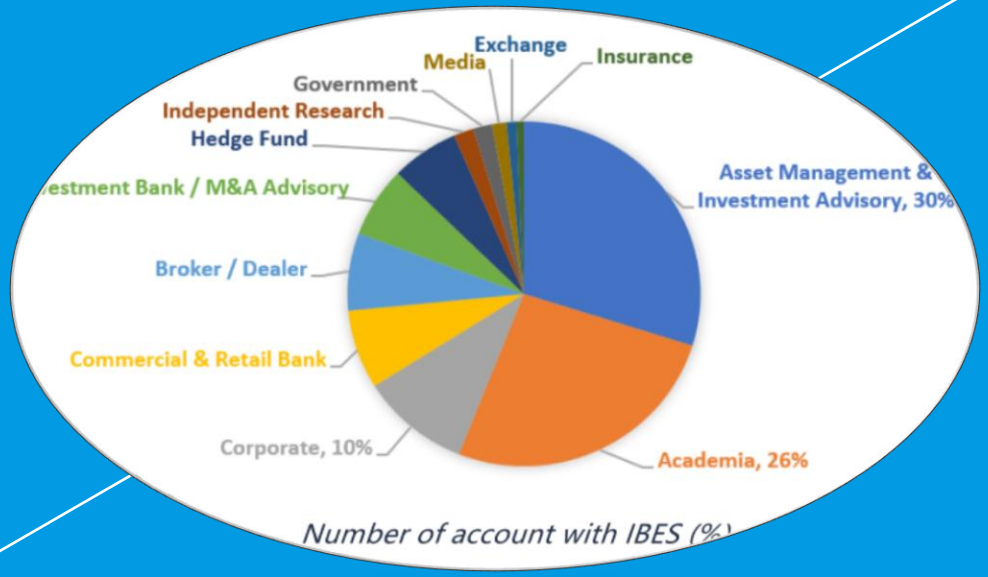
Pricings

- LSEG Datastream
  - ❑ Equities
  - ❑ Commodities
  - ❑ Futures
  - ❑ Options

ESG

- LSEG ESG

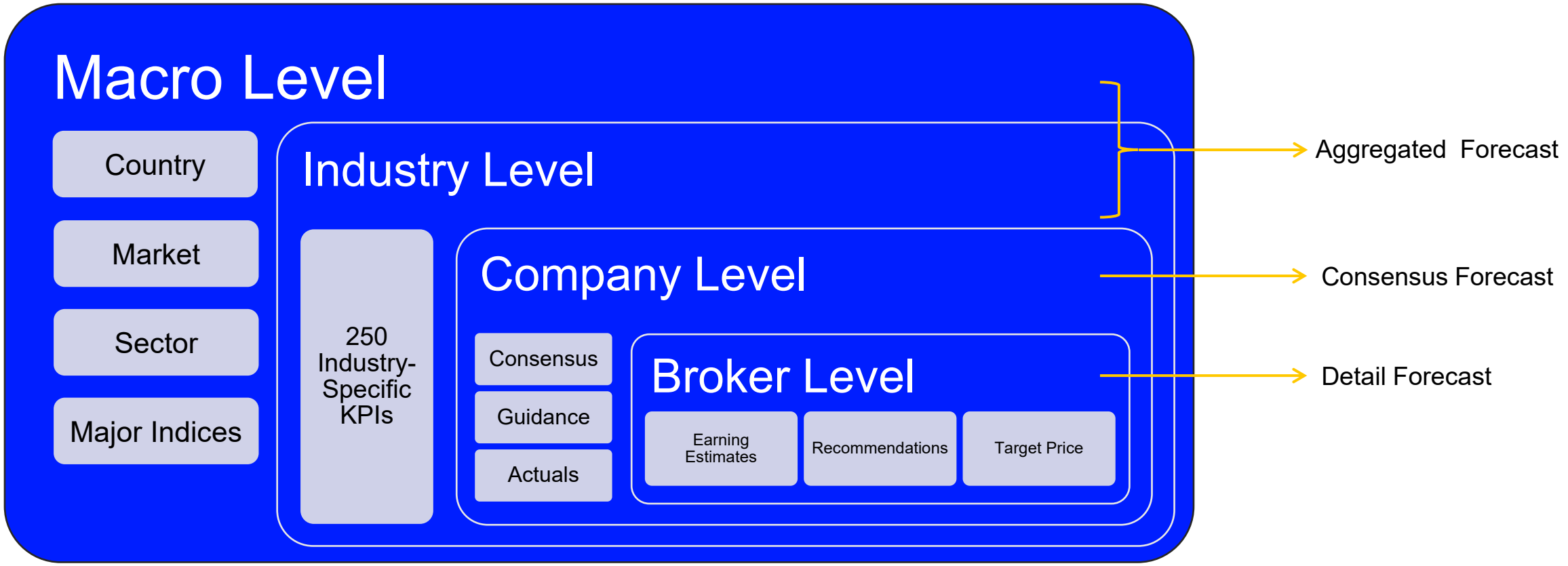
Brief of LSEG I/B/E/S



- Institutional Brokers Estimate System
- 23,000+ active companies in 90 countries
- 950+ brokers
- 20+ measures, Recommendation, Target Price
- Estimate Details, Aggregation, Guidance, KPI
- Back to 1976

LSEG

I/B/E/S – Institutional Brokers' Estimate System



Key Forecast Measures

- Earnings Per Share (EPS)
- Book Value Per Share (BPS)
- Cash Flow Per Share (CPS)
- Capital Expenditure (Non per share, CPX)
- Cash Earnings Per Share (CSH)
- Dividend Per Share (DPS)
- Earnings Per Share - Before Goodwill (EBG)
- EBIT (Non-Per Share, EBI)
- EBITDA Per Share (EBS)
- EBITDA (Non-Per Share, EBT)
- Enterprise Value (Non-Per Share, ENT)
- Earnings Per Share - Alternate (EPX)
- Funds From Operations Per Share (FFO)
- GAAP/EPS - Fully Reported (GPS)
- Gross Margin (Percent, GRM)
- Net Asset Value (Non-Per Share, NAV)
- Net Asset Value (Non-Per Share, NAV)
- Net Debt (NDT)
- Net Income (Non-Per Share, NET)
- Operating Profit (Non-Per Share, OPR)
- Pre-tax Profit (Non-Per Share, PRE)
- Return on Assets (Percent, ROA)
- Return on Equity (Percent, ROE)
- Revenue (Non-Per Share, SAL)

Terms of Estimates

Who

- **Estimator**: Sell-side institution or contributor. In the past, I/B/E/S used 'Broker'.
- **Analyst**: Person at the sell-side institution or contributing analyst who makes the forecast.

What

- **Estimate**: A prediction from the analyst about future earnings or another measure for a specific issue/entity and time period.
- **Detailed Estimate**: Analyst-by-analyst estimates.
- **Consensus** (**Summary) Estimate**: The average of all(subjects to I/B/E/S exclusion rules) estimates, from all analysts, for a given issue and time period.
- **Actual**: The reported value by the company of earnings or another measure for a specific issue/entity and time period; to be compared against the estimate.
- **Measure**: The metric for which the estimate is made. **Earnings per share is the most popular measure**.

When

- **Announce Date**(**ANNDATS**) is the date that the forecast/actual was reported.
- **Activation Date**(**ACTDATS**) is the date that the forecast/actual was recorded by LSEG.
- **Forecast Period End Date** (FPEDATS) is the date to which the estimate applies. For 70% of the companies, an estimate for a particular fiscal year will have an FPEDATS of December 31st of that year.

I/B/E/S Typical Use Cases in Financial Markets

提供基準、揭示趨勢、驅動策略、驗證判斷

盈利意外(超預期)分析

投資者在上市公司發佈季度或年度財報時，密切關注其實際盈利是否超出或低於市場普遍預期

股票估值與財務建模

分析師或基金經理在為一家公司進行現金流折現估值時，需要預測其未來的盈利能力

分析師情緒與預測趨勢跟蹤

投資者希望瞭解市場對某檔股票的看法是在改善還是在惡化，而不僅僅是看當前的共識

投資組合構建與策略

量化基金或主動型基金經理需要系統地篩選出符合特定條件的股票來構建投資組合

公司管理層業績評估

公司董事會或投資者需要評估CEO和CFO等管理團隊的表現

賣方分析師自身的績效評估

投資銀行或券商需要評估其內部股票分析師的研究水準

並購交易與盡職調查

在並購交易中，收購方需要評估目標公司的價值和未來增長潛力

指數與ETF的編制

指數提供商在編制特定主題的指數時（如“高增長股票指數”或“盈利品質指數”）

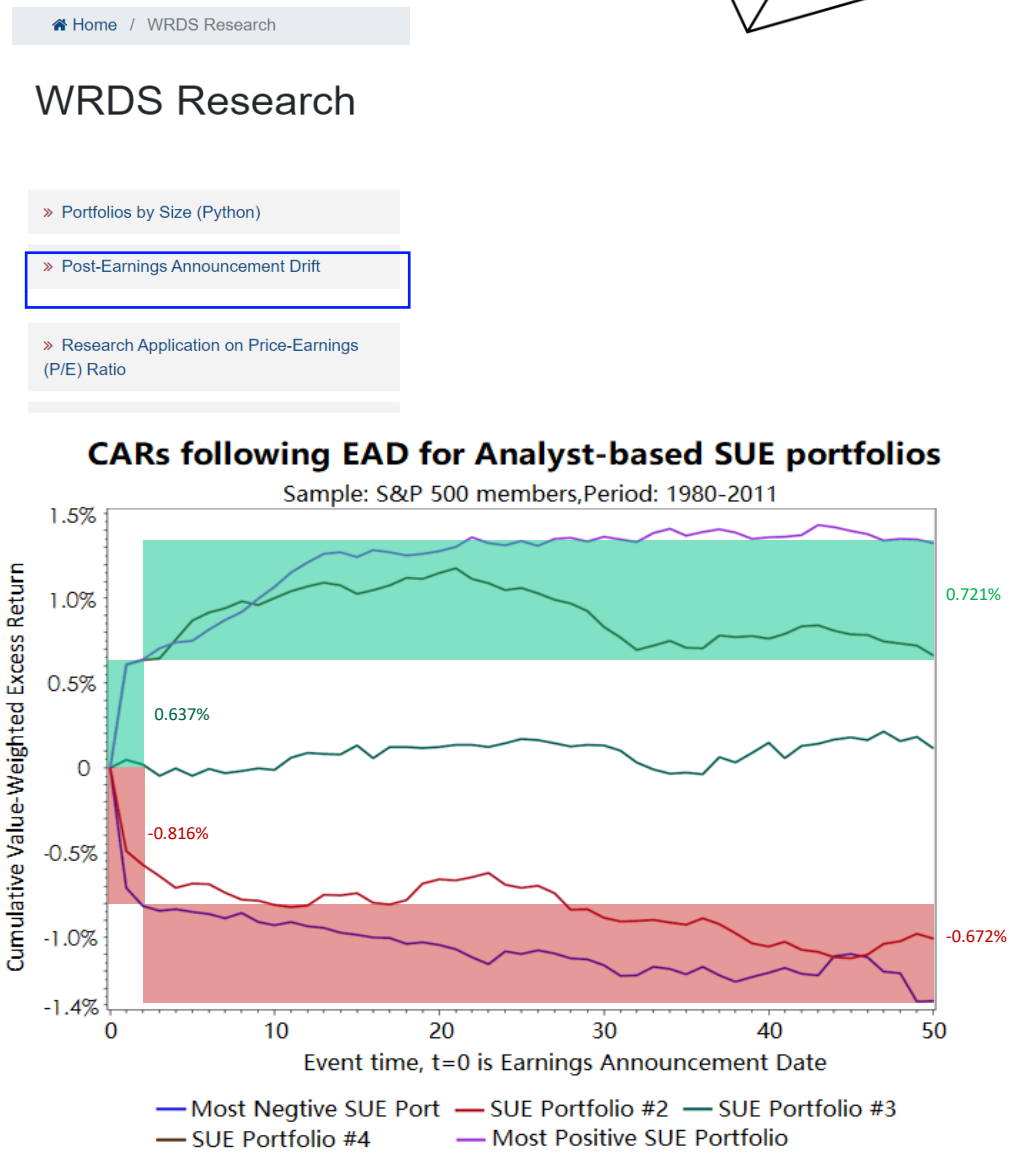
I/B/E/S Typical Use Cases in Financial Markets

Post-Earnings Announcement Drift (PEAD)

定義：PEAD 是指股票在財報公佈後數周內異常回報向盈利意外方向漂移的趨勢。

應用：投資者使用 I/B/E/S 資料來計算標準化意外收益 （SUE）並構建利用這種漂移的投資組合。

示例：一項基於 WRDS 的研究表明，SUE 得分較高的標準普爾 500 強和標準普爾 600 強公司在公告發佈後長達 50 天內表現優於同行。



Application of I/B/E/S from LSEG – Predicted Surprise

Web Query LSEG I/B/E/S in WRDS

Manual and Overview of I/B/E/S

LSEG

LSEG IBES

IBES International Inc. created its Academic Research Program over 30 years ago to provide summary and individual analyst forecasts of company earnings, cash flows, and other important financial items, as well as buy-sell-hold recommendations. In 2000, IBES was integrated with Thomson Reuters (now LSEG) / First Call, and in 2012, First Call was discontinued.

LSEG

More About This Vendor »

Detail and Consensus Forecast

LSEG IBES Academic

Analyst Estimates | Global

Detail Estimates (analyst by analyst), Summary Estimates (consensus), analyst Recommendations, along with actuals

- » Detail History 10
- » Information 4
- » Recommendations 5
- » Summary History 9
- » Unadjusted Detail 6
- » Unadjusted Summary 5

Aggregated Forecast

LSEG IBES Global Aggregates

Analyst Estimates | Global

Actuals and estimates aggregated at the industry, sector, index, country, and regional levels

- » Global Aggregates 2

LSEG IBES Guidance

Analyst Estimates | Global

Estimates from a company about its own performance. Useful for comparing how the company sees itself against the views of the market

- » Detail History 4

LSEG IBES KPI

Analyst Estimates | Segments / Industry Data | Global

Filter by Concept / Region (show)

Knowledge Base »

- » Date Variables in Ibes
- » Estimator and Analyst Codes in Estimate and Recommendation Data

Manuals and Overviews »

- » WRDS Overview of IBES
- » IBES Detail History User Guide - December 2016

LSEG IBES Academic

Detail Estimates (analyst by analyst), Summary Estimates (consensus), analyst Recommendations, along with actuals

Detail History

Analyst Estimates | Global

Detail History

- » Actuals
- » Adjustments
- » Detail
- » Detail - Excluded Estimates
- » Identifier
- » Price Target
- » Restated Actuals
- » Stop Price Target
- » Stopped Estimate

Information

Analyst Estimates | Global

Information

- » Daily Exchange Rate
- » EURO Exchange Rate
- » Monthly Exchange Rate
- » Report Currency

Recommendations

Analyst Estimates | Global

Recommendations

- » Detail
- » Detail Identification
- » Stopped Recommendations
- » Summary Identification
- » Summary Statistics (Consensus Recommendati…

Summary History

Analyst Estimates | Global

Summary History

- » Actuals, Pricing and Ancillary
- » Adjustment Factors
- » Company Identification
- » Company Level Footnote
- » Price Target
- » Secondary Revision Momentum
- » Summary Statistics
- » Summary Statistics (2nd Mean)
- » Surprise History

Unadjusted Detail

Analyst Estimates | Global

Unadjusted Detail

- » Actuals
- » Excluded Estimates
- » History
- » Price Target
- » Restated Actuals
- » Stopped Estimate

Unadjusted Summary

Analyst Estimates | Global

Unadjusted Summary

- » Actuals, Pricing and Ancillary
- » Price Target
- » Summary Statistics
- » Summary Statistics (2nd Mean)
- » Surprise History

Detail History - Detail File with Actuals

Query Form | Variable Descriptions | Manuals and Overviews | Knowledge Base | Data Preview

Detail History - Detail File with Actuals

Product:	tr_ibes
Library:	ibes
File:	det
Date Range:	(anndats) Announce Date, SAS Format: 1970-01-01 - 2025-05-15
Date Range:	(revdats) Review Date, SAS Format: 1970-01-01 - 2046-07-06
Date Range:	(actdats) Activation Date, SAS Format: 1970-01-01 - 2025-05-1
Date Range:	(fpedats) Forecast Period End Date, SAS Format: 1980-03-31
Last Updated On:	2025-06-13
Update Frequency:	Quarterly

Detail Estimate is the core of the Detail History product. This file contains analyst-by-an for annual, quarterly, semi-annual and long terms growth periods.Quarterly estimates a growth forecasts are most prominent for US and Canadian companies. Semi-annual es available for Japanese companies.

It is possible for a contributing broker to provide multiple revisions to an estimate on the scenario, all estimates are available in the Detail history files and only the most current the mean.

In the non-US files, for estimates received on a Parent-company basis a "P" appears in file. If an estimate was received on a Consolidated-company basis then an indicator is field CURRFL. In the US file, if the Canadian Currency field CURRFL is C, the estimate currency. If the indicator is not present, the estimate is in US Dollars.

The Currency field (CURR) and the Primary/Diluted Flag (PDF) in this file are Estimate against the data, it is important not to confuse these fields with the Currency field in the

Step 1: Choose your date range.

The Forecast Period End Date is the ending month and year of the
Activation Date is the date that the forecast/actual was recorded b
date that the forecast/actual was reported. The Review Date is Mo
accurate. Note that for Long Term Growth estimates, you must NO
Variable in Step One or the query will not return any estimates.

Date Variable:

(anndats) Announce Date, SAS Format

2020-01 to 202

Step 2: Apply your company codes.

Using Ticker Symbols and CUSIPs in I/B/E/S Queries

You can further refine the search by selecting values for the IBES Universe (U.S. and/or International files), IBES Measure (e.g., EPS) and Forecast Period Indicator (FPI).

Note that for FPI = 0 (Long-Term Growth) estimates, you must NOT select "Forecast Period End Date" as the Date Variable in Step One or the query will not return any results (for FPI = 0).

What variable would you like to search by?

Autocomplete
- Official Ticker
- I/B/E/S Ticker
- CUSIP (8-digit)

Select an option for entering your company codes:

Search Name or Ticker

Code List Name

Please enter company codes separated by a space.
Example: IBM MSFT AAPL
[Code Lookup: LSEG IBES]

Save this code list to Saved Codes

---------Select Saved Codes List---------

Choose from your saved code lists.

Browse... Company Codes Upload File

Choose File & Measures

- US File
- International File
- Both

Measures (non-EPS may be sparse)

- [x] Earnings Per Share (EPS)
- [ ] Book Value Per Share (BPS)
- [ ] Cash Flow Per Share (CPS)
- [ ] Capital Expenditure (Non per share,CPX)
- [ ] Cash Earnings Per Share (CSH)
- [ ] Dividend Per Share (DPS)
- [ ] Earnings Per Share - Before Goodwill (EBG)
- [ ] EBIT (Non Per Share, EBI)
- [ ] EBITDA Per Share (EBS)
- [ ] EBITDA (Non Per Share, EBT)
- [ ] Enterprise Value (Non Per Share, ENT)
- [ ] Earnings Per Share - Alternate (EPX)
- [ ] Funds From Operations Per Share (FFO)
- [ ] GAAP/Earnings Per Share - Fully Reported (GPS)
- [ ] Gross Margin (Percent, GRM)
- [ ] Net Asset Value (Non Per Share, NAV)
- [ ] Net Debt (NDT)
- [ ] Net Income (Non Per Share, NET)
- [ ] Operating Profit (Non Per Share, OPR)
- [ ] Pre-tax Profit (Non Per Share, PRE)
- [ ] Return on Assets (Percent,ROA)
- [ ] Return on Equity (Percent, ROE)
- [ ] Revenue (Non Per Share, SAL)

Forecast Period Indicator (FPI)

- [x] Fiscal Year 1 (1)
- [ ] Fiscal Year 2 (2)
- [ ] Fiscal Year 3 (3)
- [ ] Fiscal Year 4 (4)
- [ ] Fiscal Year 5 (5)
- [ ] Fiscal Year 6 (E)
- [ ] Fiscal Year 7 (F)
- [ ] Fiscal Year 8 (G)
- [ ] Fiscal Year 9 (H)
- [ ] Fiscal Year 10 (I)
- [ ] Fiscal year without an actual (U)
- [ ] Fiscal year > 10 years in the future (X)
- [ ] Quarter 1 (6)
- [ ] Quarter 2 (7)
- [ ] Quarter 3 (8)
- [ ] Quarter 4 (9)
- [ ] Quarter 5 (N)
- [ ] Quarter 6 (O)
- [ ] Quarter 7 (P)
- [ ] Quarter 8 (Q)
- [ ] Quarter 9 (R)
- [ ] Quarter 10 (S)
- [ ] Quarter 11 (T)
- [ ] Quarter 12 (L)
- [ ] Quarter > 12 quarters in the future (Y)
- [ ] Semiannual 1 (A)
- [ ] Semiannual 2 (B)
- [ ] Semiannual 3 (C)
- [ ] Semiannual 4 (D)
- [ ] Semiannual 5 (J)
- [ ] Semiannual 6 (K)
- [ ] Semi-annual without an actual or > 6 semi-a
- [ ] Long-Term Growth (0)

Choose Period

- 10 FY
- 12 FQ
- 6 Semi Annual

Step 3: Choose query variables.

How does this work?

Search All 0/25 | Identifying Information 0/4 | Other Variables 0/21

Select All | Selected Clear All (0)

Search All

- (oftic) Official Ticker
- (ticker) I/B/E/S Ticker
- (cusip) CUSIP (8-digit)
- (cname) Company Name
- (fpedats) Forecast Period End Date, SAS Format
- (actdats) Activation Date, SAS Format
- (acttims) Activation Time, SAS Format
- (revdats) Review Date, SAS Format
- (revtims) Review Time, SAS Format
- (anndats) Announce Date, SAS Format

Step 4: Select query output.

How does this work?

Select the desired format of the output file. For large data requests, select a compression type to expedite downloads. If you enter your email address, you will receive an email that contains a URL to the output file when the data request is finished processing.

Output Format
- comma-delimited text (*.csv)
- Excel spreadsheet (*.xlsx)
- tab-delimited text (*.txt)
- HTML table (*.htm)
- SAS Windows_64 dataset (*.sas7bdat)
- STATA file (*.dta)

Compression Type
- Uncompressed
- zip (*.zip)
- gzip (*.gz)

Date Format
- YYYY-MM-DD. (e.g. 1984-07-25)
- MM/DD/YYYY. (e.g. 07/25/1984)
- DD/MM/YYYY. (e.g. 25/07/1984)
- YYYYMMDD. (e.g. 19840725)

E-Mail Address *(Optional)*: frank.ling@lseg.com Edit Preferences

Custom Field *(Optional)*: Custom Field

Save This Query *(Optional)*: Saved Query Name

Notes on this Query *(Optional)*: Saved Query Notes

Submit Form

Sample Result

Detailed Annual EPS Estimates on AAPL from various brokers(Analysts)

Company Code & Name | Value & Attributes of Estimates | Date & Time of Estimates | Value, Date, Time, Currency of Actuals

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1	IBES Ticker Symbol	CUSIP/SEDOL	Official Ticker Symbol	Company Name	Contributing estimator code	Analyst Code	Canadian Currency Flag (Estimate Level)	Primary/Diluted Flag (Estimate Level)	Forecast Period Indicator	Measure (Data Type Indicator)	Estimate Value	Currency	USFIRM=0 if from .INT file and USFIRM=1 if from .US file	Forecast Period End Date, SAS Format	Activation Date, SAS Format	Activation Time, SAS Format	Announce Date, SAS Format	Announce time, SAS Format	Review Date, SAS Format	Review Time, SAS Format	Actual Value, from the Detail Actuals File	Activation date of the Actual, from the Actuals File	Activation time of the Actual, from the Actuals File	Announce date of the Actual, from the Actuals File	Announce time of the Actual, from the Actuals File	Currency from the Detail Actuals file	Report Currency
2	AAPL	03783310	AAPL	APPLE	454	133463		D	1	EPS	3.3675		1	9/30/2020	1/2/2020	21:21	1/2/2020	8:17	1/2/2020	21:21	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
3	AAPL	03783310	AAPL	APPLE	1267	193808		D	1	EPS	3.42		1	9/30/2020	1/3/2020	9:02	1/3/2020	0:49	1/27/2020	0:56	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
4	AAPL	03783310	AAPL	APPLE	3374	110208		D	1	EPS	3.36		1	9/30/2020	1/5/2020	18:03	1/5/2020	12:10	1/27/2020	13:05	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
5	AAPL	03783310	AAPL	APPLE	29	58377		D	1	EPS	3.3		1	9/30/2020	1/6/2020	6:55	1/5/2020	22:08	1/23/2020	22:47	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
6	AAPL	03783310	AAPL	APPLE	930	191412		D	1	EPS	3.4875		1	9/30/2020	1/9/2020	8:34	1/9/2020	7:00	1/9/2020	8:34	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
7	AAPL	03783310	AAPL	APPLE	2301	83036		D	1	EPS	3.3925		1	9/30/2020	1/9/2020	15:43	1/9/2020	13:00	1/14/2020	0:01	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
8	AAPL	03783310	AAPL	APPLE	79	108299		D	1	EPS	3.0875		1	9/30/2020	1/13/2020	13:43	1/13/2020	6:34	1/21/2020	7:00	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
9	AAPL	03783310	AAPL	APPLE	2830	105094		D	1	EPS	3.3625		1	9/30/2020	1/14/2020	11:58	1/14/2020	9:02	1/14/2020	11:58	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
10	AAPL	03783310	AAPL	APPLE	2502	125796		D	1	EPS	3.35		1	9/30/2020	1/14/2020	8:18	1/14/2020	3:55	1/14/2020	8:18	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
11	AAPL	03783310	AAPL	APPLE	1951	107846		D	1	EPS	3.3625		1	9/30/2020	1/15/2020	5:33	1/15/2020	4:40	1/15/2020	5:33	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
12	AAPL	03783310	AAPL	APPLE	192	86702		D	1	EPS	3.125		1	9/30/2020	1/17/2020	0:00	1/16/2020	23:17	1/17/2020	0:00	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
13	AAPL	03783310	AAPL	APPLE	2334	56181		D	1	EPS	3.305		1	9/30/2020	1/21/2020	13:17	1/21/2020	9:31	1/28/2020	16:55	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
14	AAPL	03783310	AAPL	APPLE	183	125669		D	1	EPS	3.3475		1	9/30/2020	1/23/2020	0:32	1/23/2020	0:09	1/23/2020	0:32	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
15	AAPL	03783310	AAPL	APPLE	157	192858		D	1	EPS	3.315		1	9/30/2020	1/26/2020	20:08	1/26/2020	17:09	1/26/2020	20:08	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
16	AAPL	03783310	AAPL	APPLE	873	153096		D	1	EPS	3.33		1	9/30/2020	1/27/2020	4:08	1/27/2020	0:18	1/27/2020	4:08	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
17	AAPL	03783310	AAPL	APPLE	171	113333		D	1	EPS	3.351		1	9/30/2020	1/28/2020	20:17	1/28/2020	19:51	1/28/2020	20:17	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
18	AAPL	03783310	AAPL	APPLE	98	136753		D	1	EPS	3.4032		1	9/30/2020	1/28/2020	22:49	1/28/2020	20:55	1/28/2020	22:49	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
19	AAPL	03783310	AAPL	APPLE	2334	56181		D	1	EPS	3.38		1	9/30/2020	1/28/2020	23:28	1/28/2020	21:10	2/21/2020	13:37	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
20	AAPL	03783310	AAPL	APPLE	3322	183383		D	1	EPS	3.4975		1	9/30/2020	1/28/2020	23:36	1/28/2020	21:23	3/9/2020	20:06	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
21	AAPL	03783310	AAPL	APPLE	1951	107846		D	1	EPS	3.4575		1	9/30/2020	1/29/2020	5:43	1/28/2020	23:13	1/29/2020	5:43	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
22	AAPL	03783310	AAPL	APPLE	873	153096		D	1	EPS	3.5		1	9/30/2020	1/29/2020	3:24	1/28/2020	23:29	1/29/2020	3:24	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
23	AAPL	03783310	AAPL	APPLE	282	108607		D	1	EPS	3.525		1	9/30/2020	1/29/2020	5:57	1/28/2020	22:40	1/29/2020	5:57	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
24	AAPL	03783310	AAPL	APPLE	228	81187		D	1	EPS	3.5925		1	9/30/2020	1/29/2020	6:26	1/28/2020	22:40	2/18/2020	4:45	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
25	AAPL	03783310	AAPL	APPLE	3374	110208		D	1	EPS	3.465		1	9/30/2020	1/29/2020	2:38	1/28/2020	19:28	3/2/2020	16:50	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
26	AAPL	03783310	AAPL	APPLE	4331	82561		D	1	EPS	3.515		1	9/30/2020	1/29/2020	5:34	1/29/2020	2:09	1/29/2020	5:34	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
27	AAPL	03783310	AAPL	APPLE	4235	127727		D	1	EPS	3.4725		1	9/30/2020	1/29/2020	6:38	1/29/2020	5:18	1/29/2020	6:38	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
28	AAPL	03783310	AAPL	APPLE	4201	119509		D	1	EPS	3.3775		1	9/30/2020	1/29/2020	6:08	1/29/2020	5:50	1/29/2020	6:08	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
29	AAPL	03783310	AAPL	APPLE	3037	49552		D	1	EPS	3.5275		1	9/30/2020	1/29/2020	6:06	1/29/2020	6:05	1/29/2020	6:06	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
30	AAPL	03783310	AAPL	APPLE	2830	105094		D	1	EPS	3.49		1	9/30/2020	1/29/2020	10:37	1/29/2020	9:56	1/29/2020	10:37	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
31	AAPL	03783310	AAPL	APPLE	2502	125796		D	1	EPS	3.53		1	9/30/2020	1/29/2020	9:05	1/29/2020	4:23	1/29/2020	9:05	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
32	AAPL	03783310	AAPL	APPLE	220	114459		D	1	EPS	3.4575		1	9/30/2020	1/29/2020	4:40	1/29/2020	3:23	1/29/2020	4:40	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
33	AAPL	03783310	AAPL	APPLE	1267	193808		D	1	EPS	3.54		1	9/30/2020	1/29/2020	4:52	1/29/2020	0:55	1/29/2020	4:52	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD
34	AAPL	03783310	AAPL	APPLE	930	191412		D	1	EPS	3.5375		1	9/30/2020	1/29/2020	8:41	1/29/2020	7:45	1/29/2020	8:41	3.28	10/29/2020	16:47	10/29/2020	16:32	USD	USD

SQL Query for LSEG I/B/E/S via WRDS JupyterLab

LSEG

Python: From the Web (JupyterHub)

Learn how to access WRDS data from JupyterHub with Python from the WRDS website

JupyterHub at WRDS

Open JupyterHub

Example Research Applications in JupyterHub

Top of Section

Introduction to JupyterHub Python

Jupyter is a vibrant, active open source project with lots of information online. See the JupyterLab site for getting started and how to use it: Jupyter documentation

This documentation uses several related but different terms:

- JupyterHub: "A multi-user version of the notebook designed for companies, classrooms and research labs." JupyterHub is the page you login to which creates your notebooks on WRDS Cloud.
- JupyterLab: "JupyterLab is the next-generation web-based user interface for Project Jupyter." This is main web application where you write your code and execute notebooks.
- Jupyter Notebook: "The Jupyter Notebook is an open-source web application that allows you to create and share documents that contain live code, equations, visualizations and narrative text." JupyterLab is your notebook on WRDS Cloud.
- Project Jupyter: The open source project behind JupyterHub, JupyterLab, and Jupyter Notebook.

Top of Section

Fetching Data

Python is a widely-used high-level programming language that is both powerful and easy to use, and is proving to be a major player in large-scale data analytics applications.

WRDS provides a direct interface for Python access, allowing native querying of WRDS data right within your Python program. Most WRDS data is stored in a PostgreSQL database, and is available through Python via our in-house Python module, **wrds**, which is freely available on PyPI via a `pip install`.

Some data is only available through SAS. This data can be exported from SAS into a Python-compatible file format such as CSV and imported into Python.

Here is an example of a simple query against the Dow Jones Averages & Total Return Indexes using the **wrds**

More About This Vendor »

Filter by Concept / Region (show)

Knowledge Base »

» Date Variables in Ibes

» Estimator and Analyst Codes in Estimate and Recommendation Data

Manuals and Overviews »

» WRDS Overview of IBES

» IBES Detail History User Guide - December 2016

Python Script of SQL Query for LSEG I/B/E/S

LSEG I/B/E/S Libraries

Import wrds Libarary and Authenticate

```
import wrds
db = wrds.Connection()
```

```
Loading library list...
Done
```

Available LSEG Libraries on WRDS

```
db.list_libraries()      # list of your subscription
```

```
...
```

```
[n for n in db.list_libraries() if "tr_ibes" in n]  # Python list Comprehension
```

```
['tr_ibes',
 'tr_ibes_corporate',
 'tr_ibes_guidance',
 'tr_ibes_iga',
 'tr_ibeskpi']
```

Available Tables of LSEG I/B/E/S Academic library("tr_ibes")

```
db.list_tables(library="tr_ibes")
```

```
['act_epsint',
 'act_epsus',
 'act_xepsint',
 'act_xepsus',
 'actg',
 'actgu',
 'actpsum_epsint',
 'actpsum_epsus',
 'actpsum_xepsint',
 'actpsum_xepsus',
 'actpsumu_epsint',
 'actpsumu_epsus',
 'actpsumu_xepsint',
 'actpsumu_xepsus',
 'actu_epsint',
 'actu_epsus',
 'actu_xepsint',
 'actu_xepsus',
```

Key tables of “tr_ibes”

Measures	US File	Non-US File
EPS details EPS consensus	**det_epsus** **statsum_epsus**	**det_epsint** **statsum_epsint**
Non-EPS details Non-EPS consensus	**det_xepsus,** **statsum_xepsus**	**det_xepsint,** **statsum_xepsint**
Recommendation details/consensus	**recddet, recdsum**	
Target Price details/consensus	**ptgdet, ptgsum**	

Python Script of SQL Query for LSEG I/B/E/S

```
import pandas as pd
df = pd.DataFrame()
for each in db.list_tables(library="tr_ibes"):
    data = db.describe_table(library="tr_ibes", table=each)
    data.index = data['name']
    data_tmp = data[['name', 'comment']]
    data_tmp.columns = [each, 'comment']
    df = pd.concat([df, data_tmp[each]], axis=1)
df
```

# of records in each table

```
Approximately 3341870 rows in tr_ibes.act_epsint.
Approximately 1296179 rows in tr_ibes.act_epsus.
Approximately 53605412 rows in tr_ibes.act_xepsint.
Approximately 13849129 rows in tr_ibes.act_xepsus.
Approximately 62159 rows in tr_ibes.actg.
Approximately 17983 rows in tr_ibes.actgu.
Approximately 5364049 rows in tr_ibes.actpsum_epsint.
Approximately 2384405 rows in tr_ibes.actpsum_epsus.
Approximately 49230060 rows in tr_ibes.actpsum_xepsint.
Approximately 14565716 rows in tr_ibes.actpsum_xepsus.
Approximately 5364049 rows in tr_ibes.actpsumu_epsint.
Approximately 2384405 rows in tr_ibes.actpsumu_epsus.
Approximately 14007002 rows in tr_ibes.actpsumu_xepsint.
......
```

Primary Keys: Ticker, cusip, oftic

	act_epsint	act_epsus	act_xepsint	act_xepsus	actg	actgu	actpsum_epsint	actpsum_epsus	actpsum_xepsint	actpsum_xepsus	...	stopptg	stopsecd_sepint	stopsecd_xsepint	stopu_epsint	stopu_epsus	stopu_xepsint	stopu_xepsus	surpsum	surpsumu	trbc
ticker	ticker	ticker	ticker	ticker	ticker	ticker	ticker	ticker	ticker	ticker	...	ticker	ticker	ticker	ticker	ticker	ticker	ticker	ticker	ticker	ticker
cusip	cusip	cusip	cusip	cusip	cusip	cusip	cusip	cusip	cusip	cusip	...	cusip	cusip	cusip	cusip	cusip	cusip	cusip	NaN	NaN	NaN
oftic	oftic	oftic	oftic	oftic	oftic	oftic	oftic	oftic	oftic	oftic	...	oftic	oftic	oftic	oftic	oftic	oftic	oftic	oftic	oftic	NaN
cname	cname	cname	cname	cname	cname	cname	cname	cname	cname	cname	...	cname	cname	cname	cname	cname	cname	cname	NaN	NaN	NaN
pends	pends	pends	pends	pends	pends	pends	NaN	NaN	NaN	NaN	...	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
end_time	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	...	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	end_time

Python Script of SQL Query for LSEG I/B/E/S

Detailed Annual EPS Estimates for AAPL from Multiple Brokers(Analysts)

```
db.raw_sql(
    """
    select ticker, estimator, analys, fpi,measure, fpedats,anndats, anntims, actdats, acttims, value, actual, actdats_act
    from tr_ibes.det_epsus
    where ticker='AAPL' and fpedats='2020-09-30' and anndats>'2020-01-01' and fpi='1'
    """
)
```

BASIC SQL SYNTAX

SELECT fields
FROM library.table
WHERE conditions

	ticker	estimator	analys	fpi	measure	fpedats	anndats	anntims	actdats	acttims	value	actual	actdats_act
0	AAPL	454.0	133463.0	1	EPS	2020-09-30	2020-01-02	08:17:00	2020-01-02	21:21:23	3.3675	3.28	2020-10-29
1	AAPL	1267.0	193808.0	1	EPS	2020-09-30	2020-01-03	00:49:00	2020-01-03	09:02:31	3.42	3.28	2020-10-29
2	AAPL	3374.0	110208.0	1	EPS	2020-09-30	2020-01-05	12:10:00	2020-01-05	18:03:02	3.36	3.28	2020-10-29
3	AAPL	29.0	58377.0	1	EPS	2020-09-30	2020-01-05	22:08:00	2020-01-06	06:55:40	3.3	3.28	2020-10-29
4	AAPL	930.0	191412.0	1	EPS	2020-09-30	2020-01-09	07:00:00	2020-01-09	08:34:16	3.4875	3.28	2020-10-29
...	...	...	...	...	...	...	...	...	...	...	...	...	...
229	AAPL	192.0	86702.0	1	EPS	2020-09-30	2020-10-21	19:24:00	2020-10-21	19:27:23	3.16	3.28	2020-10-29
230	AAPL	4201.0	119509.0	1	EPS	2020-09-30	2020-10-25	21:59:00	2020-10-26	05:07:53	3.17	3.28	2020-10-29
231	AAPL	873.0	153096.0	1	EPS	2020-09-30	2020-10-26	00:16:00	2020-10-26	04:03:49	3.26	3.28	2020-10-29
232	AAPL	2502.0	192023.0	1	EPS	2020-09-30	2020-10-26	03:18:00	2020-10-26	06:43:58	3.19	3.28	2020-10-29
233	AAPL	2334.0	56181.0	1	EPS	2020-09-30	2020-10-26	16:16:00	2020-10-26	18:15:06	3.22	3.28	2020-10-29

234 rows × 13 columns

Same result as web query

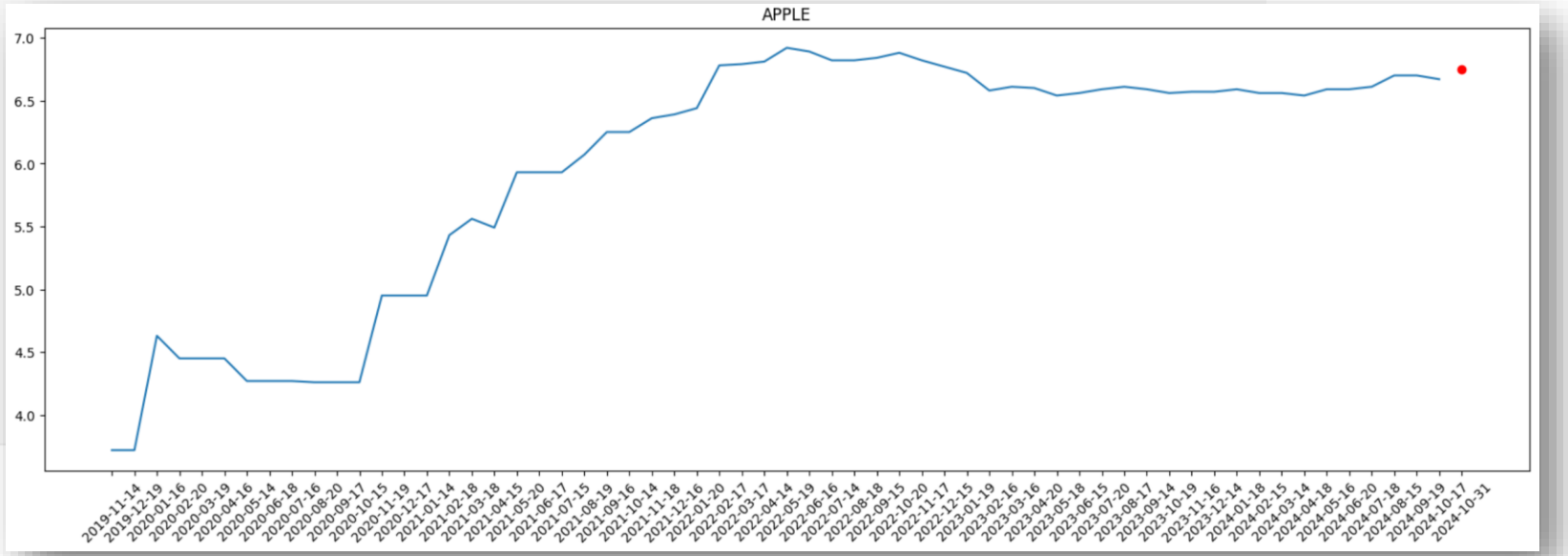
Python Script of SQL Query for LSEG I/B/E/S

Monthly Consensus(Summary) Estimates of Annual EPS for AAPL

```
data = db.raw_sql(
    """
    select ticker, cname, statpers, fpi, measure,curcode,numest, numup, numdown, medest, meanest, stdev, highest, lowest, fpedats, actual, actdats_act
    from tr_ibes.statsum_epsus
    where ticker='AAPL' and fpedats='2024-09-30' and fpi<'6'
    """
).sort_values(by='statpers')
data
```

•••

```
import matplotlib.pyplot as plt

plt.figure(figsize=(20, 6))
plt.xticks(rotation=90)

x = data['statpers']
y = data['meanest']
name = data['cname'][0]

x_act = data['actdats_act'][0]
y_act = data['actual'][0]

plt.plot(x,y)
plt.scatter(x_act,y_act, color='red')
plt.title(name)
plt.show()
```



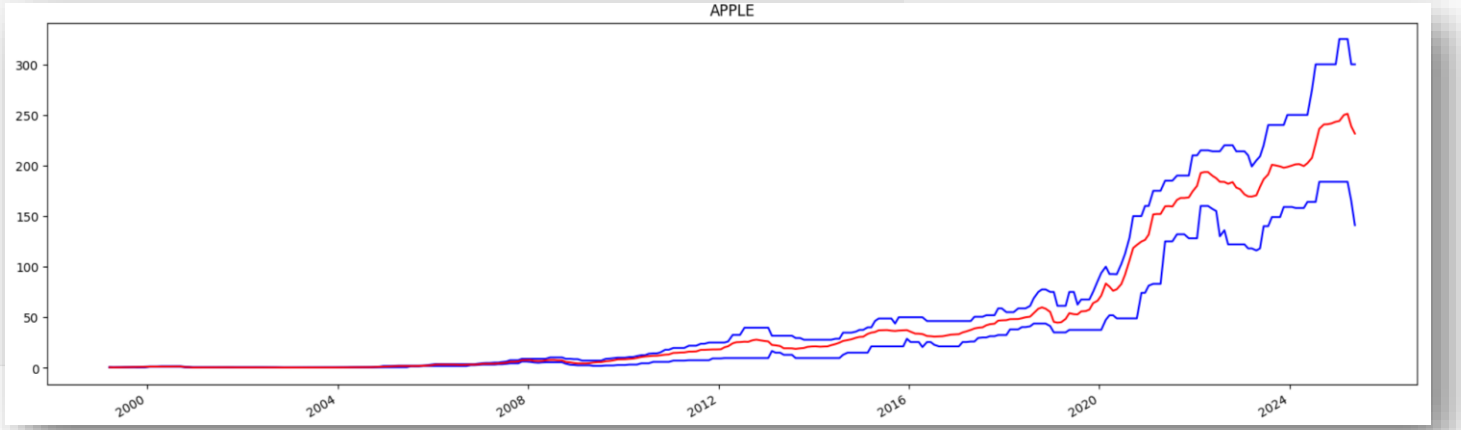
Python Script of SQL Query for LSEG I/B/E/S

Monthly Consensus of Target Price for AAPL

```
ptg_sum = db.raw_sql(
    """
    select *
    from tr_ibes.ptgsum
    where ticker='AAPL'
    """
)
ptg_sum.tail()
```

	ticker	cusip	oftic	cname	statpers	numest	numup4w	numdown4w	numup1m	numdown1m	meanptg	medptg	stdev	ptghigh	ptglow	curr	usfirm	measure
310	AAPL	03783310	AAPL	APPLE INC	2025-01-16	42.0	2.0	1.0	2.0	1.0	243.988	250.0	32.267	325.0	183.86	USD	1	PTG
311	AAPL	03783310	AAPL	APPLE INC	2025-02-20	41.0	19.0	2.0	19.0	4.0	249.924	254.0	33.23	325.0	183.86	USD	1	PTG
312	AAPL	03783310	AAPL	APPLE INC	2025-03-20	41.0	1.0	1.0	1.0	1.0	251.119	254.0	33.324	325.0	183.86	USD	1	PTG
313	AAPL	03783310	AAPL	APPLE INC	2025-04-17	43.0	1.0	12.0	1.0	12.0	238.708	250.0	34.186	300.0	165.0	USD	1	PTG
314	AAPL	03783310	AAPL	APPLE INC	2025-05-15	43.0	6.0	21.0	6.0	21.0	231.554	235.0	32.57	300.0	141.0	USD	1	PTG

```
import matplotlib.pyplot as plt
from datetime import datetime

plt.figure(figsize=(20, 6))
plt.xticks(rotation=90)
plt.gcf().autofmt_xdate()

ptg_sum['statpers'] = ptg_sum['statpers'].apply(lambda x: datetime.strptime(x, "%Y-%m-%d") )
x_sum  = ptg_sum['statpers']
y_mean = ptg_sum['meanptg']
y_high = ptg_sum['ptghigh']
y_low  = ptg_sum['ptglow']

plt.plot(x_sum,y_high, color='blue')
plt.plot(x_sum,y_low, color='blue')
plt.plot(x_sum,y_mean, color='red')

plt.title(name)
plt.show()
```



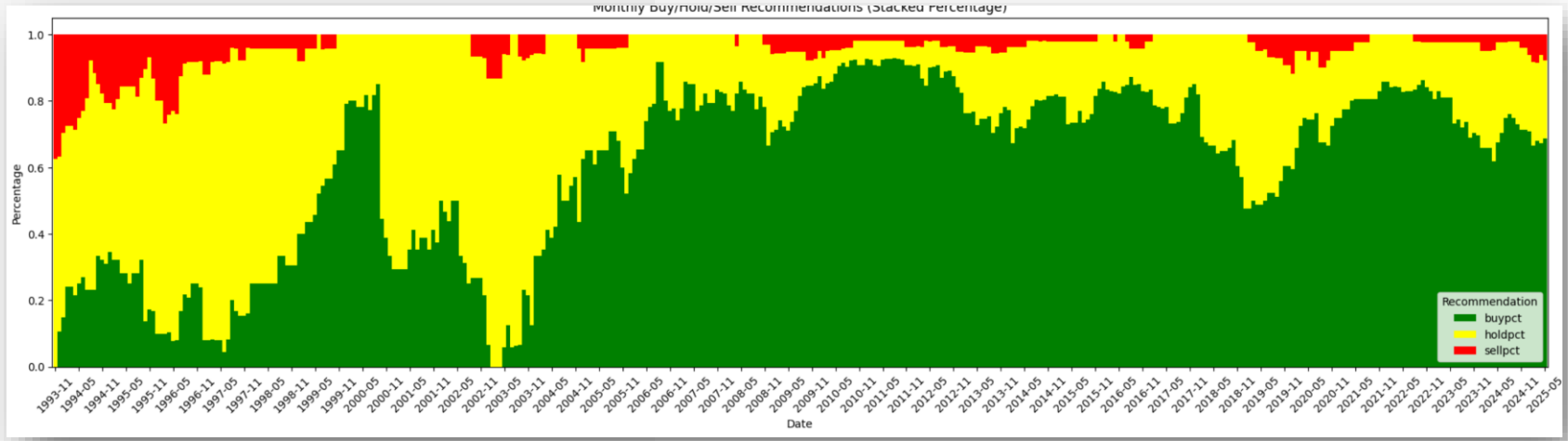
Python Script of SQL Query for LSEG I/B/E/S

Monthly Recommendation Percentages for AAPL

```
recd_sum = db.raw_sql(""" select *  from tr_ibes.recdsum   where ticker='AAPL'   """)        # Consensus Recommendation
recd_sum.head()
```

	ticker	cusip	oftic	cname	statpers	meanrec	medrec	stdev	numrec	numup	numdown	buypct	sellpct	holdpct	usfirm
0	AAPL	03783310	AAPL	APPLE COMPUTER	1993-11-18	3.5	3.0	0.76	8.0	0.0	0.0	0.0	37.5	62.5	1
1	AAPL	03783310	AAPL	APPLE COMPUTER	1993-12-16	3.32	3.0	0.95	19.0	0.0	0.0	10.53	36.84	52.63	1
2	AAPL	03783310	AAPL	APPLE COMPUTER	1994-01-20	3.22	3.0	0.93	27.0	0.0	0.0	14.81	29.63	55.56	1
3	AAPL	03783310	AAPL	APPLE COMPUTER	1994-02-17	3.17	3.0	1.07	29.0	5.0	2.0	24.14	27.59	48.28	1
4	AAPL	03783310	AAPL	APPLE COMPUTER	1994-03-17	3.14	3.0	1.13	29.0	1.0	0.0	24.14	27.59	48.28	1

```
import matplotlib.pyplot as plt
import matplotlib.dates as mdates
from datetime import datetime

# Prepare data
df = recd_sum[['statpers', 'buypct', 'holdpct', 'sellpct']]
df['statpers'] = df['statpers'].apply(lambda x: datetime.strptime(x, "%Y-%m-%d"))
df.set_index('statpers', inplace=True)

# Normalize to ensure each row sums to 100%
df = df.div(df.sum(axis=1), axis=0)

# Plot
fig, ax = plt.subplots(figsize=(20, 6))
df.plot.bar(stacked=True, color=['green', 'yellow', 'red'], ax=ax, width=1.0)

# Format x-axis
ax.set_title('Monthly Buy/Hold/Sell Recommendations (Stacked Percentage)')
ax.set_ylabel('Percentage')
ax.set_xlabel('Date')
ax.legend(title='Recommendation')

# Format x-axis as dates
ax.set_xticks(range(0, len(df.index), 6))  # Show every 6th month
ax.set_xticklabels([d.strftime('%Y-%m') for d in df.index[::6]], rotation=45)

plt.tight_layout()
plt.subplots_adjust(bottom=0.2)
plt.show()
```

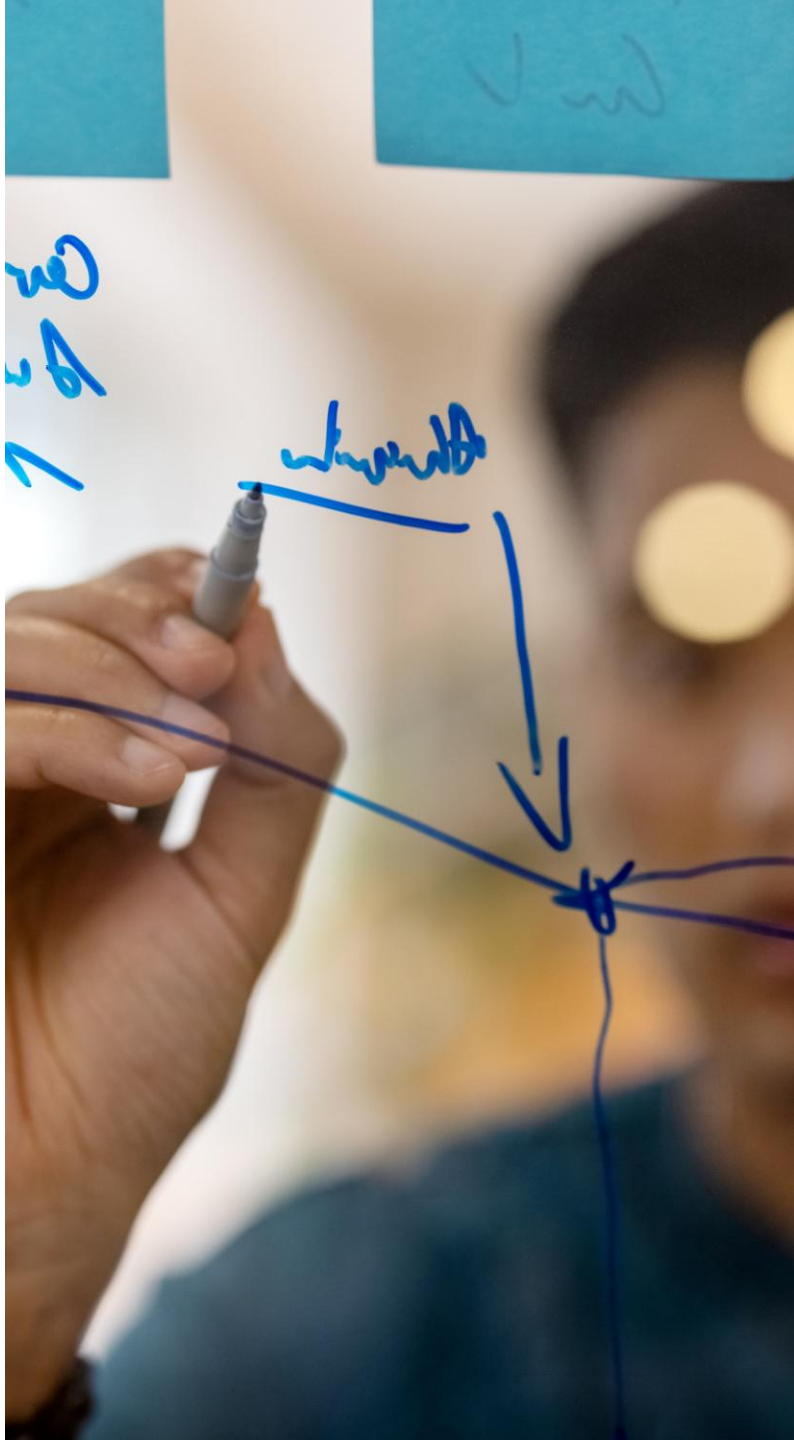


LSEG Academy

Summary

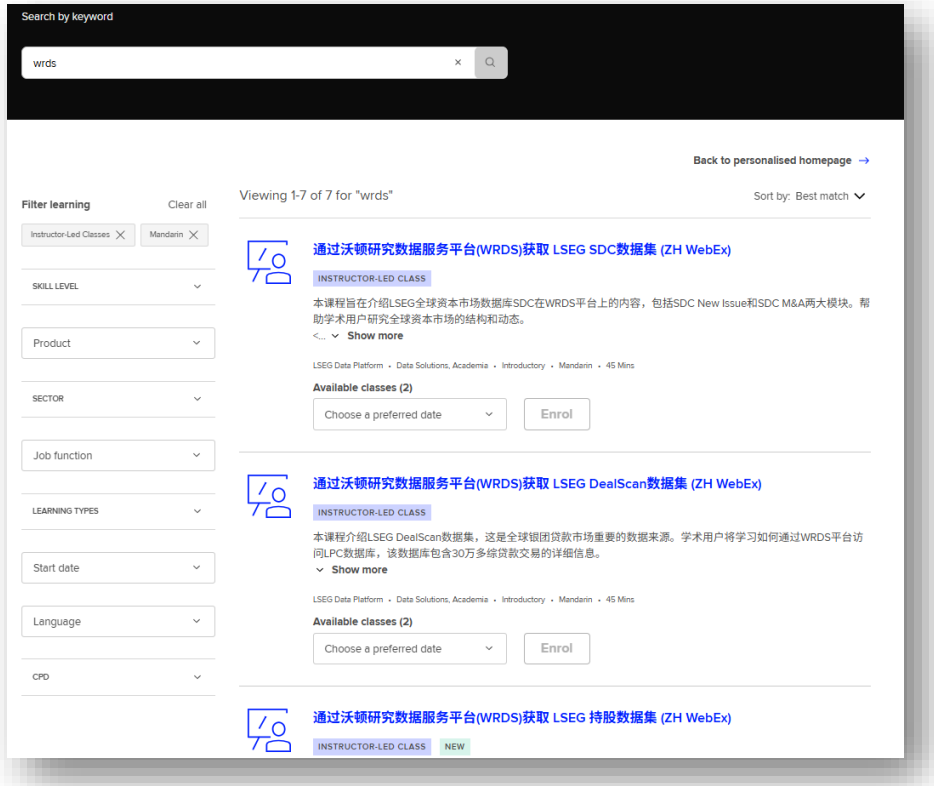
Key Points Covered Today

- 23,000+ active companies
- 950+ brokers
- Since 1976
- 20+ measures, Recommendation, Target Price,
- Detailed, Consensus, Aggregated, Guidance, KPI
- db.list_libraries(), db.list_tables()
  - ❑ tr_ibes
  - ❑ tr_ibes_guidance
  - ❑ tr_ibes_iga
  - ❑ tr_ibeskpi



Upcoming Classes for LSEG Data on WRDS

Learning Catalogue | LSEG



通过沃顿研究数据服务平台(WRDS)获取 LSEG **I/B/E/S**全球公司盈利预测数据集

通过沃顿研究数据服务平台(WRDS)获取 LSEG **Datastream**数据集

通过沃顿研究数据服务平台(WRDS)获取 LSEG **持股**数据集

通过沃顿研究数据服务平台(WRDS)获取 LSEG **SDC**数据集

通过沃顿研究数据服务平台(WRDS)获取 LSEG **ESG**数据集

通过沃顿研究数据服务平台(WRDS)获取 LSEG **Mutual Fund Holdings**数据集

通过沃顿研究数据服务平台(WRDS)获取 LSEG **DealScan**数据集

Resources

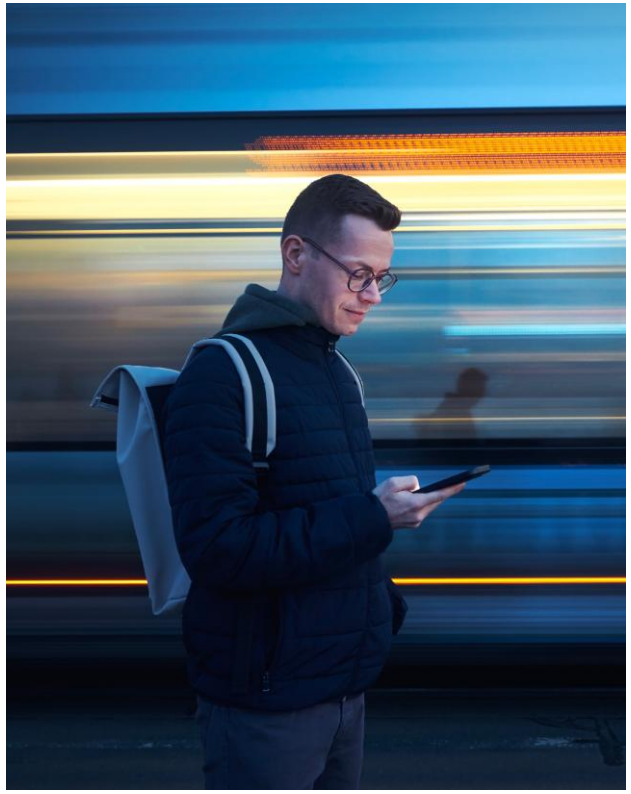
24x7

LSEG Academy
lseg.com/en/training/learning-centre

Customer Support
New support.lseg.com
myaccount.lseg.com

Developer Community
developers.lseg.com

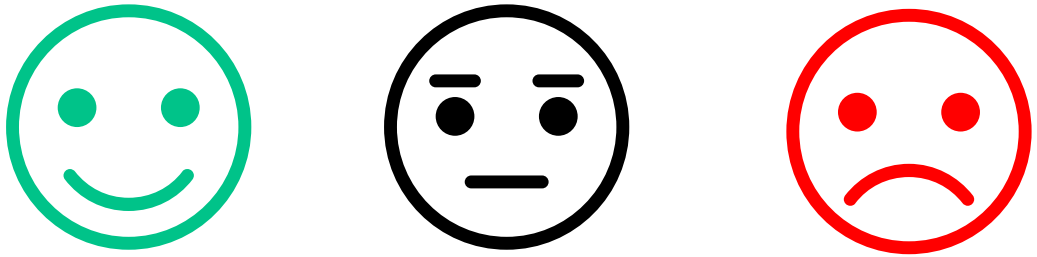
Global Phone Numbers
https://myaccount.lseg.com/en/phoneus



LSEG Academy Class Survey / LSEG
学院课程调查

Survey

Please Tell us how we did



9-10
Score

7-8
Score

1-6
Score