

# Semantic Search at Bloomberg

Search Solutions 2017

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techatbloomberg.com

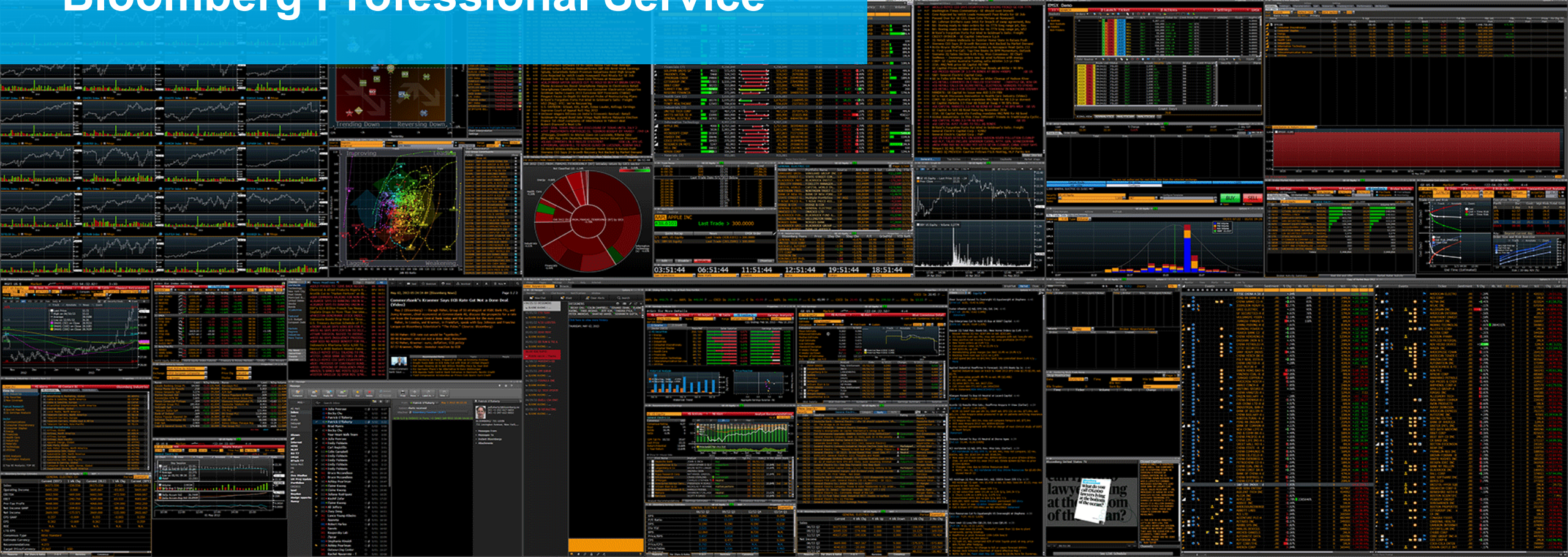
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Bloomberg





# Bloomberg Professional Service





# Bloomberg at a glance

- Bloomberg Professional Service
- Trading Systems
- Tradebook
- Bloomberg Enterprise
- News
- Media
- Bloomberg Law/BNNA
- Bloomberg New Energy Finance
- Bloomberg Government

# Bloomberg by the numbers

- Founded in **1981**
- **325,000** subscribers in **170** countries
- Over **19,000** employees in 192 locations
- **More News reporters** than The New York Times + Washington Post + Chicago Tribune
- **Over 4,800 Engineers**

# News at Bloomberg

[techatbloomberg.com](https://techatbloomberg.com)

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Top News

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Top Stories Selected By Bloomberg | More »

- 1) Akzo Nobel Rejects PPG's Sweetened, \$24 Billion Takeover Bid BN 08:10
- 2) Global Stocks Tumble After U.S. Selloff; Yen Gains: Markets Wrap BN 08:30
- 3) Fillon Slips Further Back in France as Canard Reports Putin Ties BN 07:21
- 4) Fed Looks Past Trump Stocks Rally, Sees Same Old Tired Expansion BN 04:00

Featured Stories ◀ 1 of 3 ▶ More »

- 5) Li Ka-Shing Speaks After Main Companies Raise Dividends: TOPLive BN 08:40
- 6) South Africa Current-Account Gap Shrinks to Smallest Since 2011 BN 08:00
- 7) Glencore Faces Zinc Dilemma as Price Gains See Customer Pain BN 08:31
- 8) UBS Introduces Charges on Euro Accounts Exceeding 1 Million BN 08:45
- 9) Hermes 2016 Profit Climbs on Handbag Sales, Europe Growth BN 08:19
- 10) Trump Looms Over \$35 Million College Border Security Grant BN 08:00
- 11) Stock Traders Gain New Bellwether for Analyzing Brexit Talks BN 06:30
- 12) Nordea Mergers Prompt Finland to Seek Tougher EU Mega-Bank Rules BN 07:42
- 13) ✓ Ghana's Growing Government Erodes Pledge to Protect Public Purse BN 00:00
- 14) Why Libya Oil Revival Hinges on Fate of Two Ports: QuickTake Q&A BN 08:16
- 15) Scotland Demands Independence Vote in Shadow of a Weaker Economy BN 05:00

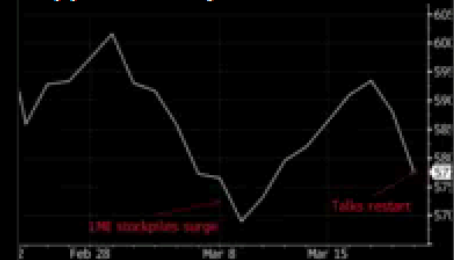
Commentary & Analysis ◀ 1 of 3 ▶ More »

- 16) Chipzilla Is Toppled by Taiwan's Supplier to the Stars: Gadfly BG 04:48
- 17) Modi May Be Getting Too Powerful for His Own Good: Mihir Sharma BV 03/21
- 18) U.K. Consumer Could Be Saving a Surprise for BOE: Intelligence BI 06:05
- 19) Around We Go, Where It Stops You Need to Know: Trader's Notes BFW 07:41
- 20) Check for Shifting Foundations in China Housing Profits: Gadfly BG 02:50
- 21) Italian Cement Companies Get Emotional About M&A: Intelligence BI 06:06

Scroll Down For: ☒ Deals ☒ Finance ☒ Eco & Gov ☒ Tech ☒ Sports

Chart of the Hour | More »

Copper Goes Quiet



First Word | More »

CK Hutchison Final Dividend/Share HK\$1.945; Est. HK\$1.95 [08:38]

EUROPEAN WRAP-Stoxx 600 Slides as Trump Trade Pullback Continues [08:34]

PALM OIL: Futures Extend Advance as Production Outlook Assessed [08:29]

Akzo Nobel/PPG Talks Likely to Be Over for Now: Louis Capital [08:29]

NSE

4 - Bloomberg (NSE)

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N907

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Search News

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Custom Searches

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News

Oil

Sources

All Dates

Time Ordered

Translate to...

1) Drivers, Not Refiners, May Bear Brunt of U.S. Biofuel Quotas

2) U.S. Stocks Give Up Early Gains as Crude Retreats: Markets Wrap

3) A DECISIVE WEEK?

4) \*ICE BRENT CRUDE JAN 18 FUTURES SETTLE AT \$63.84/BBL

5) Reuters Business: Oil prices fall on higher U.S. supply, doubts about Russia's res...

6) [USD] January Crude Futures Down -\$0.84

7) Investing.com: Crude Oil Prices Settle Lower Ahead OPEC Meeting

8) Reuters Business: Peugeot ups Chinese petrol engine shipments amid diesel slum...

9) Oil Boosts Petronas' Earnings While New Plants Raise Potential

10) DJ U.S. Stocks Mixed, Weighed Down by Energy Shares

11) DJ U.S. Stocks Mixed, Weighed Down by Energy Shares

12) Bloomberg Barclays Index Publication.

13) Thermon Up 3.9%; Trading Volume More Than Doubles

14) \*DJ Nymex Crude Oil Settles Down 1.42% at \$58.11/Barrel

15) \*DJ Nymex Crude Oil Settles Down 1.42% at \$58.11/Barrel

16) \*DJ Nymex Crude Oil Settles Down 1.42% at \$58.11/Barrel

17) \*DJ Nymex Crude Oil Settles Down 1.42% at \$58.11/Barrel

18) \*DJ Nymex Crude Oil Settles Down 1.42% at \$58.11/Barrel

19) \*DJ Nymex Crude Oil Settles Down 1.42% at \$58.11/Barrel

20) \*DJ Nymex Crude Oil Settles Down 1.42% at \$58.11/Barrel

BN

BN

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IDE

FM9

TWT

BI

DGM

DJR

LBR

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DGM

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DJW

DJR

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18:25

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19:36

Functions for the Market: Actionable insights & function knowledge.

FFM

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N907 <Search>

Search News Display & Edit Custom Searches Page 1 News

"beer" × Amsterdam × Sources All Dates Time Ordered ×

Did you mean (("amsterdam" AND "beer")) ×

Translate to...

- 1) In Move to Amsterdam From London, EMA Pushes to Keep Staff (1) BN 11/21+
- 2) Amsterdam bans controversial 'beer-bikes' AFP 10/31
- 3) Forbes: Amsterdam's New-School Cool Luxury Hotels FOR 10/30
- 4) The Best Alternatives for Overcrowded Travel Destinations BN 08/24
- 5) Straight Up: Bar Brasserie Occo, Amsterdam TEL 06/05
- 6) Straight Up: Bar Brasserie Occo, Amsterdam TEL 06/05
- 7) Straight Up: Bar Brasserie Occo, Amsterdam TEL 06/05
- 8) Straight Up: Bar Brasserie Occo, Amsterdam TEL 06/05
- 9) The Traveller 10 Amsterdam Attractions Without the Queues SYH 06/04
- 10) Amsterdam Attractions TEL 04/07
- 11) Amsterdam Restaurants TEL 04/07
- 12) River Cruises Aim for Millennials with DJs, Adventure Trips BN 03/29
- 13) Music for Machiavelli: The New Prince in Amsterdam FTI 03/28
- 14) The 35 Must-Try Cocktails Around the World BN 03/16
- 15) The Secrets of Amsterdam's Red Light District - From a Vice Cop Turned Tour Gui... TEL 02/24
- 16) De Telegraaf: 21:56 Achtervolging Amsterdam eindigt in crash DTF 12/28
- 17) 10 Reasons Why You Must Visit Amsterdam in 2017 TEL 12/19
- 18) Amsterdam Has Become 'unlivable' as Residents Fight Back to Stop 'Disneyficatio... TEL 12/02
- 19) The Ultimate Guide to Visiting Amsterdam on a Budget TEL 11/30



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4) Previous

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66) Send

98) Actions

Top News: News Story

03/22/2017 00:00:00 [BN]

B

Translate to...



## Ghana's Growing Government Erodes Pledge to Protect Public Purse

- Team of ministers and deputies to increase to 110 people
- Unplanned spending announced in January startled markets

By Ekow Dontoh

(Bloomberg) -- Ghanaian President [Nana Akufo-Addo](#)'s plan to enlarge the government may undermine his administration's efforts to convince investors it'll keep the purse strings tight.

Akufo-Addo has announced nominations and appointments of ministers and deputies that could increase the size of the team to run his two-month old administration to 110 people, the largest in the West Africa nation's history and up from 84 under his predecessor [John Dramani Mahama](#). The group of officials is 50 percent bigger than that of South Africa, the continent's most industrialized economy, and three times the size of the ministerial team in Nigeria, where the population is seven times bigger.

[Ghana](#)'s finance ministry this month [announced](#) plans to cut the fiscal deficit as it sought to fulfill campaign promises and raise investor confidence eroded by the announcement in January of a 7 billion-cedi (\$1.5 billion) hole in the budget. While Finance Minister [Ken Ofori-Atta](#), who will now have three

Your research just got a NOTE-able upgrade.

NOTE

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Top News: News Story

03/22/2017 00:00:00 [BN] B

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BFW

03/21

Sugar Falls to Lowest in 10 Months as Cocoa Futures Advance

BFW

03/21

SOFTS: Cocoa Extends Rally; Sugar Drops to Lowest in Since M...

BFW

03/21

SOFTS: Sugar Drops to 10-Month Low as Speculators Flee Mar...

BFW

03/21

Ivory Coast Said to Face 200b CFA Francs Losses Over Cocoa ...

People

John Mahama (Republic of Ghana)

Ken Ofori-Atta (Republic of Ghana)

Manji Cheto (Teneo Intelligence)

Nana Akufo-Addo (Republic of Ghana)

Topics

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AGR

Agriculture

BIZNEWS

Bus, Eco, Govt News

BUD

Budget News

CMD

Commodities

CMDX

Commodities, ex-Energy

# News stories

Jun 24, 2014 17:16:51 [BN]

## Fed Extends Capital-Plan Deadline for Four Banks to January (1)

(Updates with Citigroup's results starting in the fourth paragraph.)

By Dakin Campbell and Jeff Kearns

June 24 (Bloomberg) -- The Federal Reserve extended deadlines until next year for new capital plans from Citigroup Inc. and the U.S. units of HSBC Holdings Plc, Royal Bank of Scotland Group Plc and Banco Santander SA after objecting to earlier versions.

The four banks' June 26 deadline was pushed to Jan. 5, the due date for the next round of annual plans, the Fed said today in a statement in Washington. Regulators objected to the companies' submissions during the central bank's 2014 Comprehensive Capital Analysis and Review, a



The screenshot shows a Bloomberg terminal window with multiple columns of financial data, including stock prices, market capitalization, and other metrics for various banks. The data is presented in a structured, tabular format typical of financial terminals.

Financial Analysis

C US Equity

HSBA LN Equity

Banking (BNK)

Federal Reserve (FED)

United States (US)

Mark Costiglio



# News queries

- Arbitrarily complex Boolean queries
  - For both search and alerting
  - AND, OR, NOT, NEAR, wildcards and phrase queries...
  - Users create queries as large as 20K characters (or more!)
- Searches using keywords and metadata
  - Topics, companies (and lists, e.g., with 1000s of companies), people, sources, ...
- Stories from 125K+ sources
  - Users privileged for a subset of these sources
  - Can be turned on/off per user
  - ACLs can have a few, many or all of the users
- Searches and stories in 40 languages
  - Any user can have a subset of these selected

# News queries

Sources	Key Newswi	Relevance M	Lang My	10/01/14	00:00	-	10/31/14	23:59	Attachment	Pg - -
Type	Search Terms									
11) Keywords	"BARACK OBAMA" N/10 "WAR*" IN STORYTOP/75									
12) Ticker Lists										
13) Companies										
14) Topics	- ODD									
15) People										
16) Regions	IRAQ , AFGHAN									
17) Industries										
18) Sources	BLOOMBERG , TWT									
1) Run Search										
20) Preview		21) Manually Edit		Expected Flow: 17.2 Stories/Hour						
KEYWORDS: ("BARACK OBAMA" N/10 "WAR*" IN STORYTOP/75) WITHIN NOT TOPIC:ODD AND (REGION:IRAQ OR REGION:AFGHAN) AND (WIRE:BLOOMBERG OR WIRE:TWT)										

# News search

**325K+ Subscribers**

9 Million Searches PER DAY

**1 Million Stories**

PUBLISHED EACH DAY

INDEX OF 500 MILLION STORIES

500 Stories  
PER SECOND

Available for Search  
in ~100ms

180ms  
RESPONSE TIME

More. Better. Faster.

Alerts in 100ms

1.5 MILLION  
SAVED SEARCHES



# Solr // Learning to Rank

- The News Search Cloud
  - Open source: Solr
  - Hundreds of shards, and thousands of Solr cores
  - Multiple tiers: 'recent' collection to optimize chronological results
  - Ability to fix bugs and contribute to core engine
  - Solr committers in-house
- Machine Learning
  - Allows continuous relevance tuning
  - SOLR LTR plugin

# Multi-linguality

- Traditional search engines struggle when dealing with queries in different languages
- Typically specialized by “market” (e.g., en-US, en-GB, ...)
- All components are specialized “vertically” for a market
  - Online spell correction
  - Terms/query expansion
  - Click counts on URLs vary from market to market
- Why is this different for us?

# Multi-linguality

- Suppose you are an natural energy trader (oil, gas,...)
  - access news in multiple languages is an advantage
  - news will appear first in the language of the country where it happens
  - e.g., if you trade in oil and your target markets are in South America, knowing Spanish is a **big** advantage, but knowing both Spanish and Portuguese is a **huge** advantage
- More than 1/3 of the queries are executed in 2 languages or more



# Multi-linguality

- Everything starts with the documents: news stories are annotated with entities and topics
  - There are 1000s of possible topics in our system
  - Plus entities like people, companies, ...
- Queries are also translated into entities and topics and then matched against the index

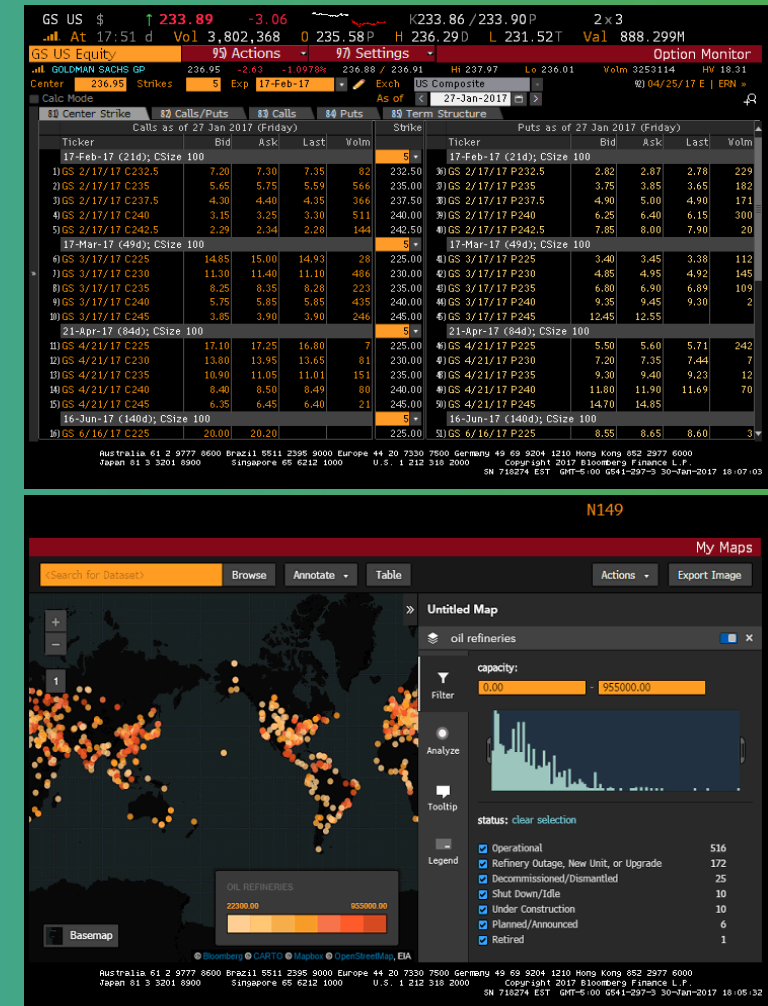
# Multi-linguality

- Everything starts with the documents: news stories are annotated with entities and topics
  - There are 1000s of possible topics in our system
  - Plus entities like people, companies, ...
- Queries are also translated into entities and topics and then matched against the index

# Search at Bloomberg

## Search for Bloomberg is unique

- Neither web search nor enterprise search
- Search means different things for different areas
  - Federated search
  - Screening (multi parameter filtering)
  - Geospatial search
  - News search
- Data is heterogeneous, but connected
- Precision is very important





GS US \$ ↑ **233.89** -3.06 K233.86 / 233.90 P 2x3  
 . At 17:51 d Vol 3,802,368 0 235.58 P H 236.29 D L 231.52 T Val 888.299M

GS US Equity 95 Actions 97 Settings Option Monitor

GOLDMAN SACHS GP 236.95 -2.63 -1.0978% 236.88 / 236.91 Hi 237.97 Lo 236.01 Volm 3253114 HV 18.3

Center 236.95 Strikes 5 Exp 17-Feb-17 Exch US Composite 04/25/17 E | ERN

Calc Mode As of 27-Jan-2017

81 Center Strike 82 Calls/Puts 83 Calls 84 Puts 85 Term Structure

Calls as of 27 Jan 2017 (Friday) Strike Puts as of 27 Jan 2017 (Friday)

Ticker	Bid	Ask	Last	Volm	Strike	Ticker	Bid	Ask	Last	Volm
--------	-----	-----	------	------	--------	--------	-----	-----	------	------

17-Feb-17 (21d); CSize 100					5	17-Feb-17 (21d); CSize 100				
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1) GS 2/17/17 C232.5	7.20	7.30	7.35	82	232.50	36) GS 2/17/17 P232.5	2.82	2.87	2.78	2
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2) GS 2/17/17 C235	5.65	5.75	5.59	566	235.00	37) GS 2/17/17 P235	3.75	3.85	3.65	1
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3) GS 2/17/17 C237.5	4.30	4.40	4.35	366	237.50	38) GS 2/17/17 P237.5	4.90	5.00	4.90	1
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4) GS 2/17/17 C240	3.15	3.25	3.30	511	240.00	39) GS 2/17/17 P240	6.25	6.40	6.15	3
--------------------	------	------	------	-----	--------	---------------------	------	------	------	---

5) GS 2/17/17 C242.5	2.29	2.34	2.28	144	242.50	40) GS 2/17/17 P242.5	7.85	8.00	7.90	
----------------------	------	------	------	-----	--------	-----------------------	------	------	------	--

17-Mar-17 (49d); CSize 100					5	17-Mar-17 (49d); CSize 100				
----------------------------	--	--	--	--	---	----------------------------	--	--	--	--

6) GS 3/17/17 C225	14.85	15.00	14.93	28	225.00	41) GS 3/17/17 P225	3.40	3.45	3.38	1
--------------------	-------	-------	-------	----	--------	---------------------	------	------	------	---

7) GS 3/17/17 C230	11.30	11.40	11.10	486	230.00	42) GS 3/17/17 P230	4.85	4.95	4.92	1
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8) GS 3/17/17 C235	8.25	8.35	8.28	223	235.00	43) GS 3/17/17 P235	6.80	6.90	6.89	1
--------------------	------	------	------	-----	--------	---------------------	------	------	------	---

9) GS 3/17/17 C240	5.75	5.85	5.85	435	240.00	44) GS 3/17/17 P240	9.35	9.45	9.30	
--------------------	------	------	------	-----	--------	---------------------	------	------	------	--

10) GS 3/17/17 C245	3.85	3.90	3.90	246	245.00	45) GS 3/17/17 P245	12.45	12.55		
---------------------	------	------	------	-----	--------	---------------------	-------	-------	--	--

21-Apr-17 (84d); CSize 100					5	21-Apr-17 (84d); CSize 100				
----------------------------	--	--	--	--	---	----------------------------	--	--	--	--

11) GS 4/21/17 C225	17.10	17.25	16.80	7	225.00	46) GS 4/21/17 P225	5.50	5.60	5.71	2
---------------------	-------	-------	-------	---	--------	---------------------	------	------	------	---

12) GS 4/21/17 C230	13.80	13.95	13.65	81	230.00	47) GS 4/21/17 P230	7.20	7.35	7.44	
---------------------	-------	-------	-------	----	--------	---------------------	------	------	------	--

13) GS 4/21/17 C235	10.90	11.05	11.01	151	235.00	48) GS 4/21/17 P235	9.30	9.40	9.23	
---------------------	-------	-------	-------	-----	--------	---------------------	------	------	------	--

14) GS 4/21/17 C240	8.40	8.50	8.49	80	240.00	49) GS 4/21/17 P240	11.80	11.90	11.69	
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15) GS 4/21/17 C245	6.35	6.45	6.40	21	245.00	50) GS 4/21/17 P245	14.70	14.85		
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&lt;Search for Dataset&gt;

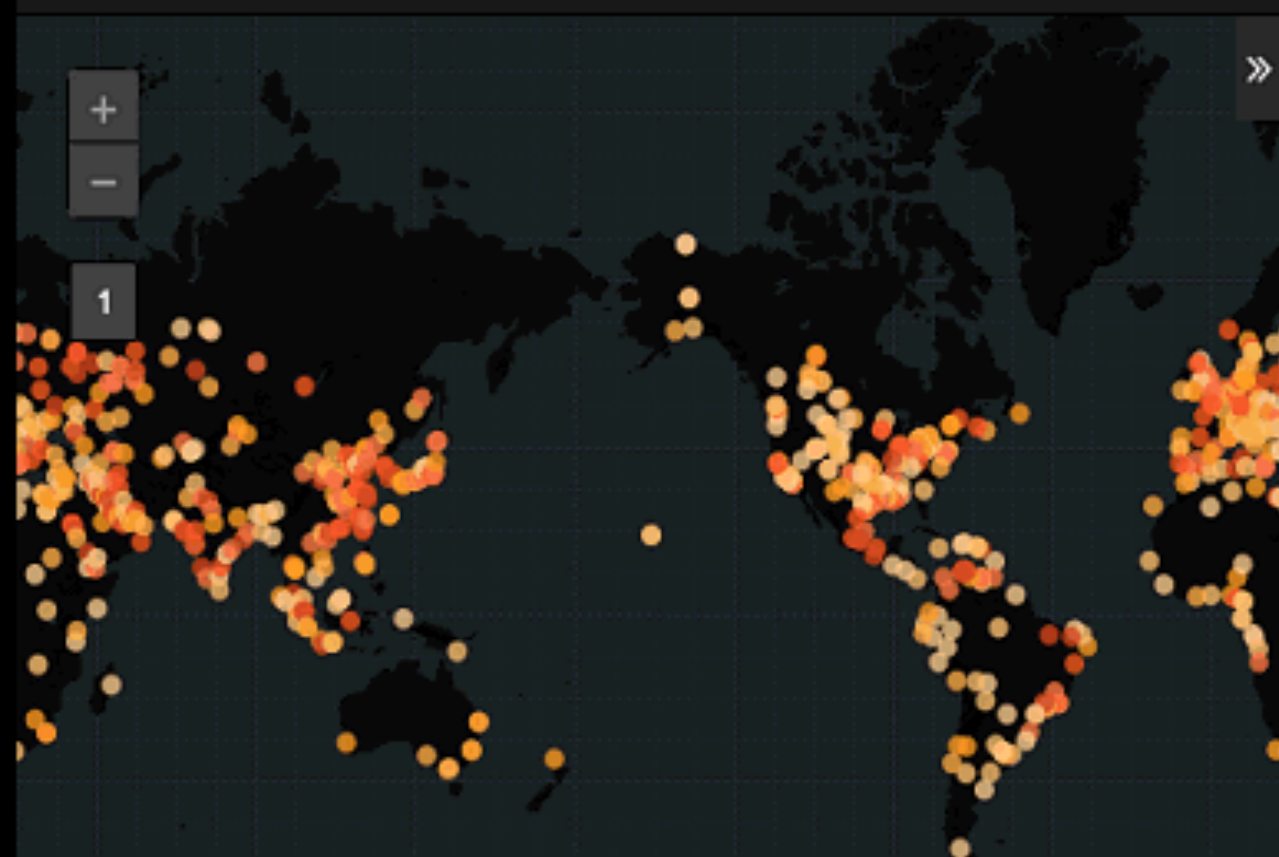
Browse

Annotate ▾

Table

Actions ▾

Export Image



## Untitled Map



oil refineries



Filter

capacity:

0.00

955000.00



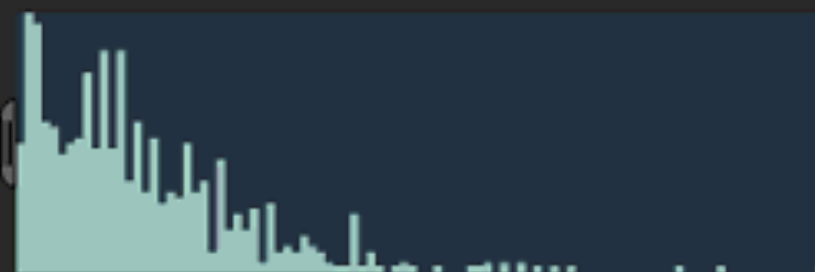
Analyze



Tooltip



Legend

status: [clear selection](#)

<input checked="" type="checkbox"/> Operational	516
<input checked="" type="checkbox"/> Refinery Outage, New Unit, or Upgrade	172
<input checked="" type="checkbox"/> Decommissioned/Dismantled	25
<input checked="" type="checkbox"/> Shut Down/Idle	10
<input checked="" type="checkbox"/> Under Construction	10
<input checked="" type="checkbox"/> Planned/Announced	6
<input checked="" type="checkbox"/> Retired	1

OIL REFINERIES

22300.00

955000.00



Basemap

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&lt; &gt; HEINEKEN NV Equity SPLC Related Functions Menu

Message ★ □ ⚙ ?

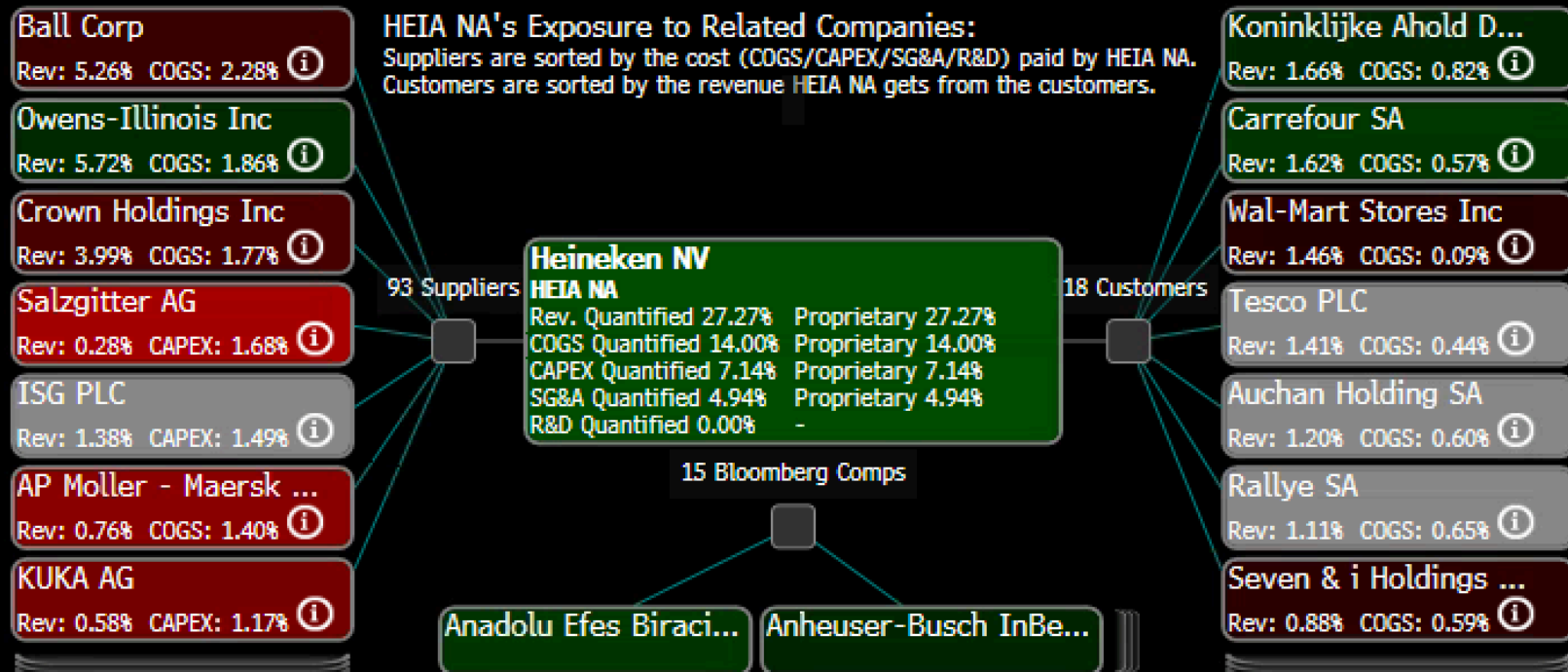
HEIA NA € ↓ 79.74 -0.09 *unchd* A79.73 / 79.75A 407x200  
At 8:36 d Vol 136,895 0 79.61A H 79.89A L 79.53A Val 10.918M

HEIA NA Equity 2 Peers 3 Actions 4 Output Supply Chain Analysis

Viewing Heineken NV

Analyze Latest Sales Surprise % EUR Display Name Quantified Relationships Only Filters

Show As 8) Table Sort by 9) Company Exposure 10) Relationship Exposure 11) Custom Sort Show Events None



Analysis: Latest Sales Surprise Percentage



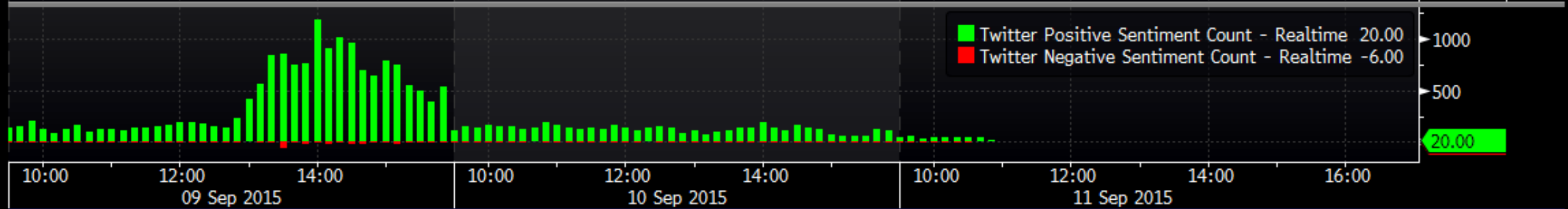
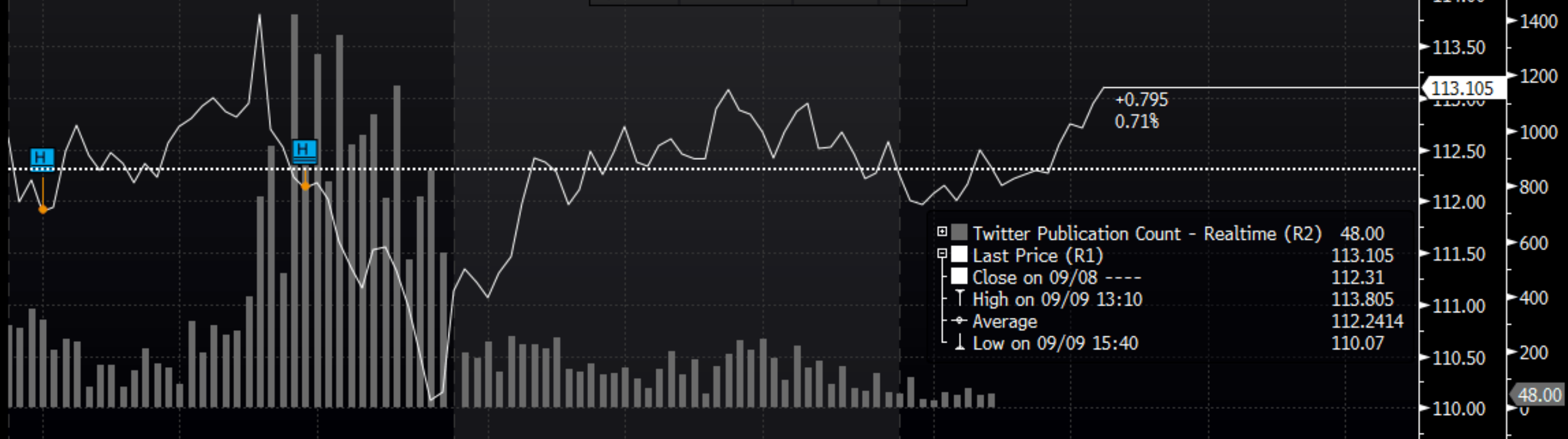
NAAPL US \$ ↑ 113.11 +.54 K113.10 / 113.11Q 9x5  
At 12:30 Vol 21,288,191 0 111.79P H 113.13 L 111.76D Val 2.39B

AAPL US Equity 95) Compare 96) Actions 97) Edit Intraday Twitter Chart

Period 10 Range 3 Mov Avg No Lower Chart

1D 3D 1M 6M YTD 1Y 5Y Max 10 Min Table Security/Study Event

Track Annotate News Zoom

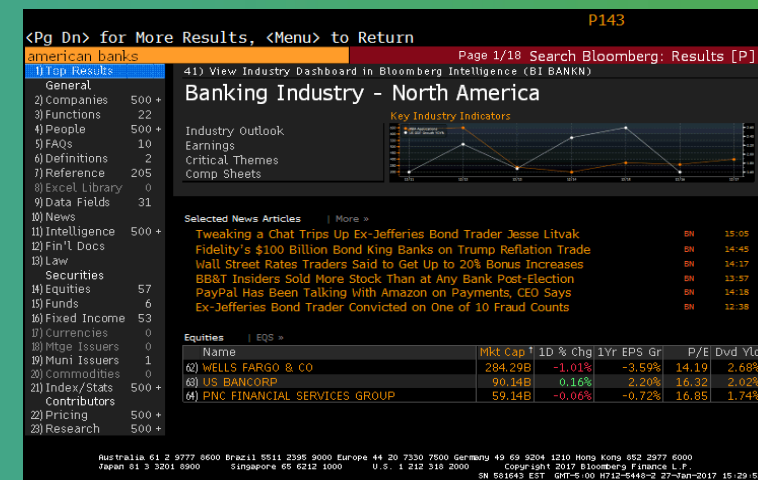




# Federated Search

## Unified Search for the Bloomberg Terminal

- Searches through around 60 data sources
  - Structured, semi-structured and pure text sources
- Our goal is to ease information discovery
  - Focus on what you are looking for, not where it might be
  - One interface to find all the data, analytics, news, ...
- Results are presented in one relevance-ranked list



&lt;Pg Dn&gt; for More Results, &lt;Menu&gt; to Return

american banks

Page 1/18 Search Bloomberg: Results [P]

## 1) Top Results

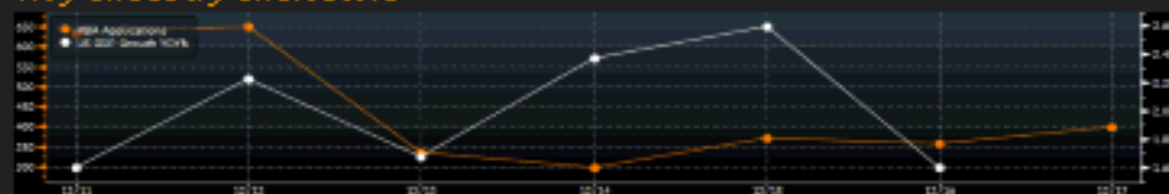
## General

- 2) Companies 500 +
- 3) Functions 22
- 4) People 500 +
- 5) FAQs 10
- 6) Definitions 2
- 7) Reference 205
- 8) Excel Library 0
- 9) Data Fields 31
- 10) News
- 11) Intelligence 500 +
- 12) Fin'l Docs
- 13) Law
- Securities
- 14) Equities 57
- 15) Funds 6
- 16) Fixed Income 53
- 17) Currencies 0
- 18) Mtge Issuers 0
- 19) Muni Issuers 1
- 20) Commodities 0
- 21) Index/Stats 500 +
- Contributors
- 22) Pricing 500 +
- 23) Research 500 +

41) View Industry Dashboard in Bloomberg Intelligence (BI BANKN)

## Banking Industry - North America

## Key Industry Indicators



## Selected News Articles | More »

- Tweaking a Chat Trips Up Ex-Jefferies Bond Trader Jesse Litvak** BN 15:05
- Fidelity's \$100 Billion Bond King Banks on Trump Reflation Trade** BN 14:45
- Wall Street Rates Traders Said to Get Up to 20% Bonus Increases** BN 14:17
- BB&T Insiders Sold More Stock Than at Any Bank Post-Election** BN 13:57
- PayPal Has Been Talking With Amazon on Payments, CEO Says** BN 14:18
- Ex-Jefferies Bond Trader Convicted on One of 10 Fraud Counts** BN 12:38

## Equities | EQS »

Name	Mkt Cap †	1D % Chg	1Yr EPS Gr	P/E	Dvd Yld
62) WELLS FARGO & CO	284.29B	-1.01%	-3.59%	14.19	2.68%
63) US BANCORP	90.14B	0.16%	2.20%	16.32	2.02%
64) PNC FINANCIAL SERVICES GROUP	59.14B	-0.06%	-0.72%	16.85	1.74%

# Federated Search

## Unified Search for the Bloomberg Terminal

- Users can query using Natural Language
- Searches dynamic content
- Has unique challenges
  - Data is varied in structure and popularity
  - Usage patterns vary vastly
  - Feedback is sparse
  - Precision is key

techatbloomberg.com

elp N146

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tech acquisition in asia last week. Page 1/1 Search Bloomberg: Results [B]

1) Top Results

General

2) Companies 0

3) Functions 0

4) People 0

5) FAQs 0

6) Definitions 0

7) Reference 0

8) Excel Library 0

9) Data Fields 0

10) News

11) Intelligence 0

12) Fin'l Docs

13) Law

14) Securities

15) Equities 0

16) Funds 0

17) Fixed Income 0

18) Currencies 0

19) Mtge Issuers 0

20) Muni Issuers 0

21) Commodities 0

22) Index/Stats

23) Contributors

24) Pricing 0

25) Research 0

Selected News Articles | More »

Jack Ma Takes Aim at Trump's Wall With MoneyGram Deal: Gadfly 06 01/26

Jack Ma's Ant Financial Buys MoneyGram for \$880 Million 04 01/26

Wanda's Driving Too Fast Down Boulevard of Broken Dreams: Gadfly 06 01/23

Toshiba Selling Chip Unit Stake May Be Least Bad Option: Gadfly 06 01/23

Japan's Raw Deal Shows India Needs to Cure Delhi Belly: Gadfly 06 01/23

Goldman Sachs Said to Work on Sale of Toshiba's Chip Business 04 01/24

Mergers and Acquisitions | MA »

Ann Date	Target Name	Acquirer Name	Value	Status
01/26/17	Premier Eda Solutions Ltd	Altium Ltd		Completed
01/26/17	Cloud Socius Ltd	Nippon Telegraph & Telephone		Completed
01/24/17	E2 Inc	Takara Printing Co Ltd		Pending
01/24/17	NE Mobile Services India Pvt	Unnamed Buyer		Pending
01/24/17	Design Camp LLC	Kabuni Ltd		Pending

Australia 61 2 9777 6600 Brazil 55 11 2395 9000 Europe 44 20 7330 7500 Germany 49 49 9204 1210 Hong Kong 852 2977 6000 Japan 81 3 3201 6900 Singapore 65 6212 1000 U.S. 1 212 315 2000 Copyright 2017 Bloomberg Finance L.P. SN 710274 EST GMT-5:00 0541-297-3 30-Jan-2017 19:12:26

N149

<Pg Dn> for More Results, <Menu> to Return

government debt of australia Page 1/7 Search Bloomberg: Results

1.048521T AUD

The Government Debt of Australia

Ticker AUCAD Index

Observation Date 09/30/16

Next Release 02/27/17 19:30:00

Sovereign Debt Ownership | DEBT »

World Countries Debt Monitor | WCDM »

Debt Distribution | DDIS »

View Chart | GP »

AUCAD Index (PR005)

AUCAD Index (PR201)

2012 2013 2014 2015 2016

Selected News Articles | More »

DJ Asia-Pac Govt Bonds Yields Slide as Trump Leads in US Polls -- Market Talk 02M 11/08

DJ Asia-Pac Govt Bond Yields Grind Lower; Take a Breather After Sell-Off -- M... 04M 09/14

DJ Asia-Pac Govt Bond Yields Jump on Fed Rate-Hike Fears -- Market Talk 04M 08/11

DJ ECB Non-Action Drives Asia-Pac Govt Bonds Yields Higher -- Market Talk 04M 08/08

DJ Asia-Pac Govt Bond Yields Edge Lower; All Eyes on Jackson Hole -- Market... 04M 08/22

DJ Asia-Pac Govt Bonds Yields Up on Uncertainty Over U.S. Rates Hike Outlook... 012 08/21

Bonds | SRCH »

R 1 Issuer Name	Ticker	Coupon	Maturity Date	Currency	Amt Outstanding
Australia Govern	ACGB	4.250	07/21/17	AUD	13.87M
Australia Govern	ACGB	6.000	02/15/17	AUD	11.83M

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5) FAQs	0
6) Definitions	0
7) Reference	0
8) Excel Library	0
9) Data Fields	0
10) News	
11) Intelligence	0
12) Fin'l Docs	
13) Law	
Securities	
14) Equities	0
15) Funds	0
16) Fixed Income	0
17) Currencies	0
18) Mtge Issuers	0
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20) Commodities	0
21) Index/Stats	0
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23) Research	0

## Selected News Articles

| More »

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## Mergers and Acquisitions

| MA »

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51) 01/26/17	Premier Eda Solutions Ltd	Altium Ltd		Completed
52) 01/26/17	Cloud Socius Ltd	Nippon Telegraph & Telephon		Completed
53) 01/24/17	E2 Inc	Takara Printing Co Ltd		Pending
54) 01/24/17	NE Mobile Services India Pvt	Unnamed Buyer		Pending
55) 01/24/17	Design Camp LLC	Kabuni Ltd		Pending



# Increasingly entity-oriented search

- companies
  - stocks, bonds, location, ...
- people
  - government officials, board members, C-suite, ...
  - ...
- products/commodities
  - prices, ...
- countries, regions, ...
- economic indicators (GDP, operating surplus, ...)
- sentiment, polarity, popularity, ...
- ...

# Lots of potential for applications

- Smarter search, smarter alerts
  - news, stock prices, commodities, interest rates, ...
- Query/document tagging, search, and recommendations
  - sentiment, polarity, saliency/aboutness, ...
- Information landscapes
  - ...
- ...

# Conclusions

- Search at Bloomberg is unique in many ways
- Federated Solr/ML-based search architecture for search (open source!)
- Multi-lingual, complex searches involving companies, people, and more
- The world (and also Bloomberg!) increasingly moving towards entity-oriented search

# Data Science Research Grant Program

Bloomberg invites faculty worldwide to apply for unrestricted gifts that support research in broadly-construed data science, including natural language processing, machine learning, and data mining. We also invite proposals for creation of, or contributions to, open source software used for data science.

## Applications

Faculty members, research scientists, and post-doctoral fellows at universities worldwide are eligible to serve as Principal Investigators (PIs). A PI can lead one proposal per cycle, but can serve as co-PI on other proposals.

Applications should be submitted [here](#) in PDF format. We prefer a single file containing all materials, named after the first PI's last name and first name. Please note that Bloomberg cannot accept any proposal containing confidential or proprietary information.

The application deadline for Round 5 will be announced before the end of 2017.



# Q&A

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@edgarmeij

PS. We're hiring :-)

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