



FIRST

Large scale information extraction and integration
infrastructure for supporting financial decision making.

My inflation pressure gauge rose at a good clip over the first half of this year on the strength of a rally in the commodity market. **commodity_market** seasonally adjusted, increased by 2.7% for the year through Aug. However, the pressure gauge has flattened out in recent months as the rally in commodities has stalled. In fact, **NeutralAd** and in the commodities market for '09 is being tested presently (chart).

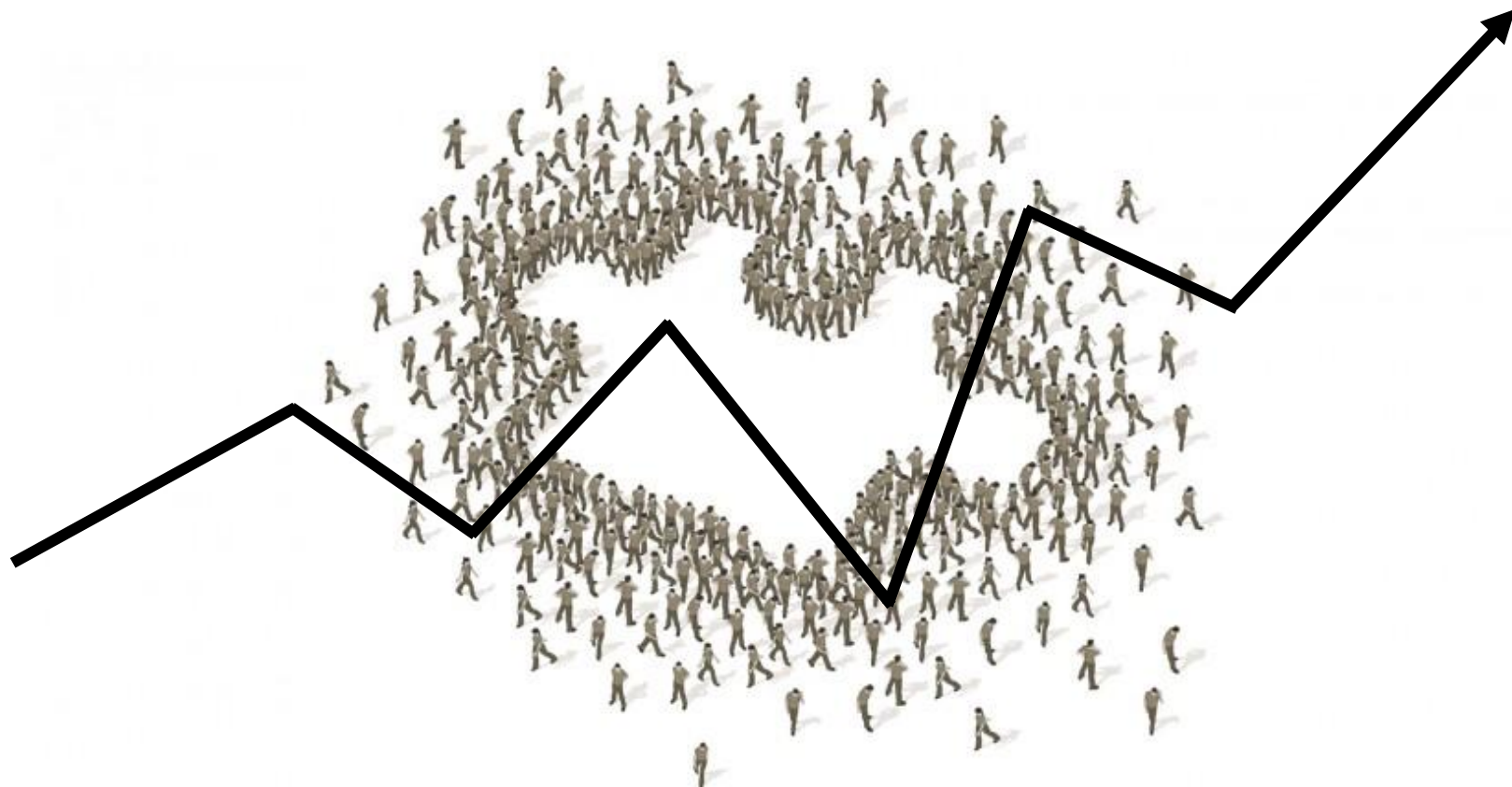
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The quick moderation of inflation thrust has helped the bond market in recent months, and it may also account for the more stable US dollar seen in **PosSub** couple of weeks. Normally, the prospect of a moderation of inflation pressure as economic recovery commences **PosVerd** be cheered by stock **NegVerd**, and we have seen that although there could be some badlash potential, players begin to worry again about **NeutralAd** why some traders are concerned that a rising **NegSub** could be bad for stocks in that it would signify a flight to quality in anticipation of a failed economic recovery. **NegSub** itself, but interesting nonetheless.

Wisdom of the Crowds – What to make of web-based sentiment?

Ulli F. P. Spankowski
Stuttgart Financial / Boerse Stuttgart
March 29th 2012

The Challenge





The
Economist

"The best newsreaders may soon be computers"

21.06.2007



Forbes

**Trading On Sentiment Analysis - A Public Relations Tool Goes
To Wall Street**

28.11.2011



The
New York
Times

"Computers that trade on the news"

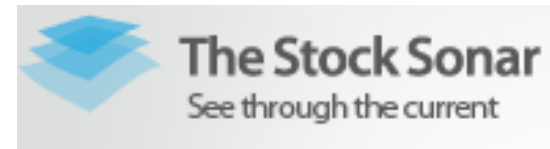
22.12.2010

*"The computer-savvy traders known as quants are paying attention. According to Aite Group, a financial services consulting company, about **35 percent of quantitative trading firms are exploring whether to use unstructured data feeds.** Two years ago, about 2 percent of those firms used them"*

*"Paul Tetlock, an associate professor at Columbia University who did research that was used to create the news algorithms, worries that technology **has skewed the playing field.**"*



TweetTrader.net



Market for semi-structured information matures

REUTERS NEWSSCOPE
MACHINE-READABLE NEWS TO FUEL YOUR TRADING APPLICATIONS

DEUTSCHE BÖRSE
MARKET DATA
AlphaFlash[®]
The *fastest* algo news feed.

**REAL-TIME
DATA FEEDS**
Creating a Competitive
Differentiator Through
Event-Driven Trading
Bloomberg

RavenPack News Analytics
Dow Jones Edition

RavenPack News Analytics is designed to enhance your trading strategies and help you spot trading opportunities, better manage risk, and generate alpha.

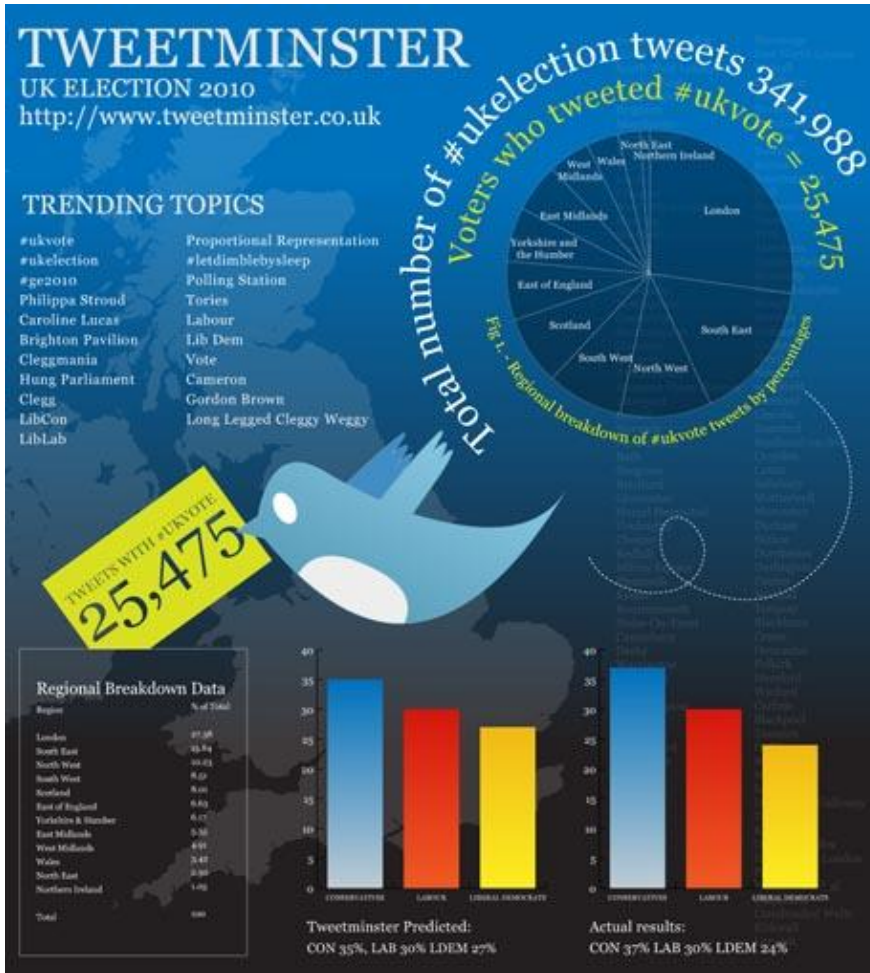


Algorithmic Trading

Trend towards unstructured information

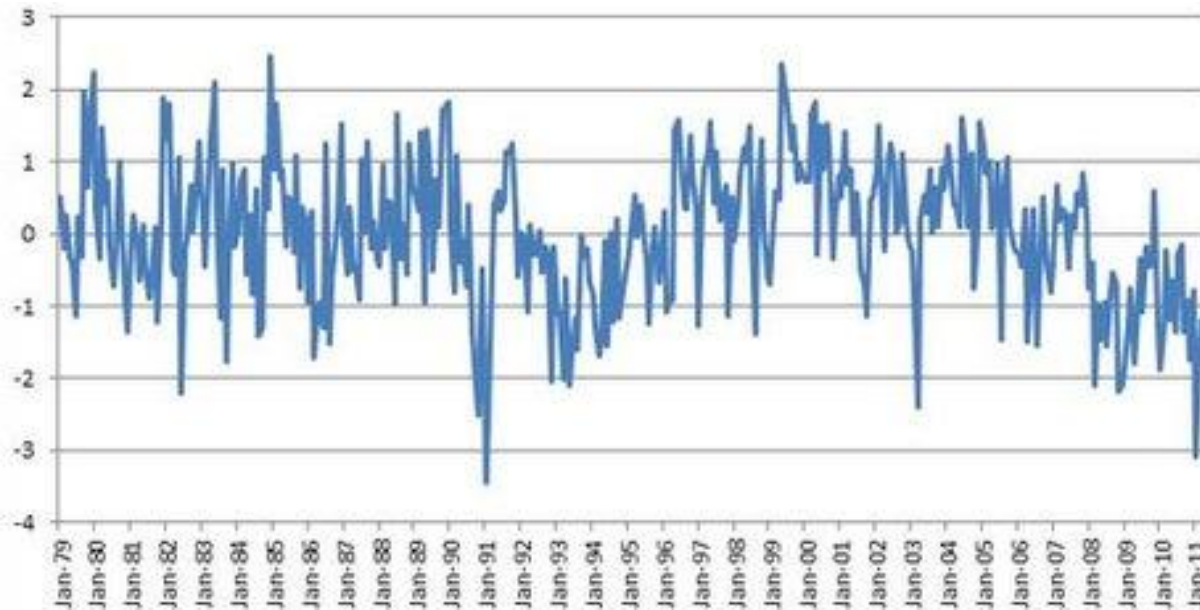
- Commercial applications mainly focus on institutional investors
- The main goal is to collect and analyse unstructured information for algorithmic trading
- However the area of applications is much larger than just institutional investors. This growing technology is also helpful in many other areas

Predicting election results



- National share of the vote
- Vote share fluctuated by a few percentage points over the six weeks but the final Tweetminster prediction was:
- Conservatives 35%
 - Labour 30%
 - Liberal Democrats 27%
 - Others 8%
- The actual results were:
- Conservatives 37%
 - Labour 30%
 - Liberal Democrats 24%
 - Others 10%

Predicting revolutions - Egypt



Source: Leetaru, Kalev (2011): Culturomics 2.0: Forecasting large-scale human behavior using global news media tone in time and space

- On 25 January 2011, popular dissent with the Egyptian state culminated in mass protests that continued through President Mubarak's resignation on 11 February.
- The Figure shows the average tone by month from January 1979 to March 2011 of all 52,438 articles captured by SWB mentioning an Egyptian city anywhere in the article.
- Only twice in the last 30 years has the global tone about Egypt dropped more than three standard deviations below average: January 1991 (the U.S. aerial bombardment of Iraqi troops in Kuwait) and 1–24 January 2011, ahead of the mass uprising.
- The only other period of sharp negative moment was March 2003, the launch of the U.S. invasion of neighboring Iraq.

Geographical detection of earthquakes via twitter

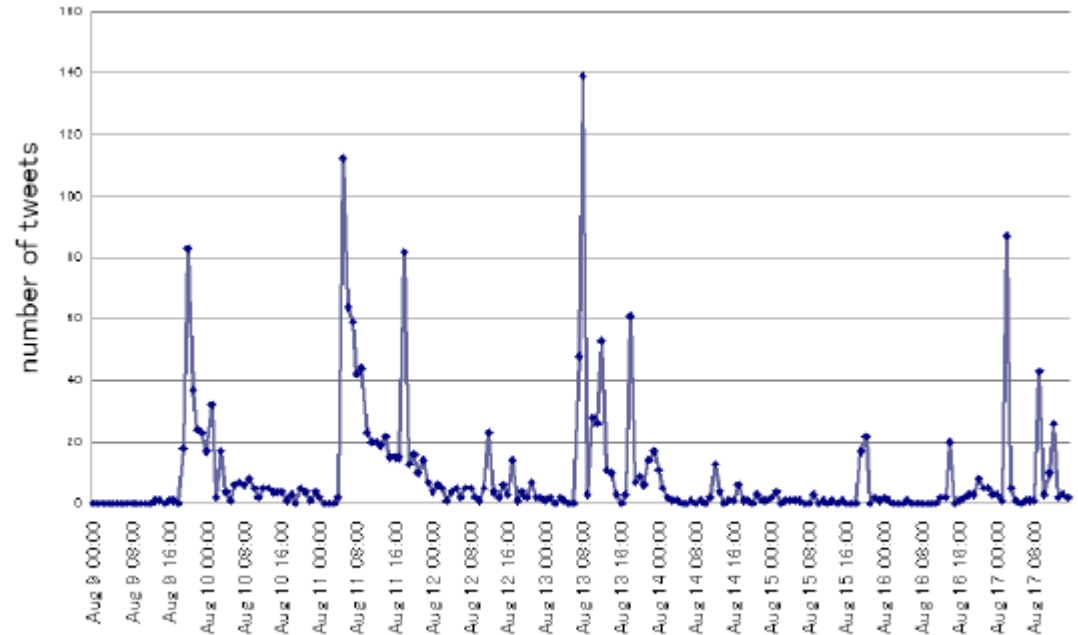
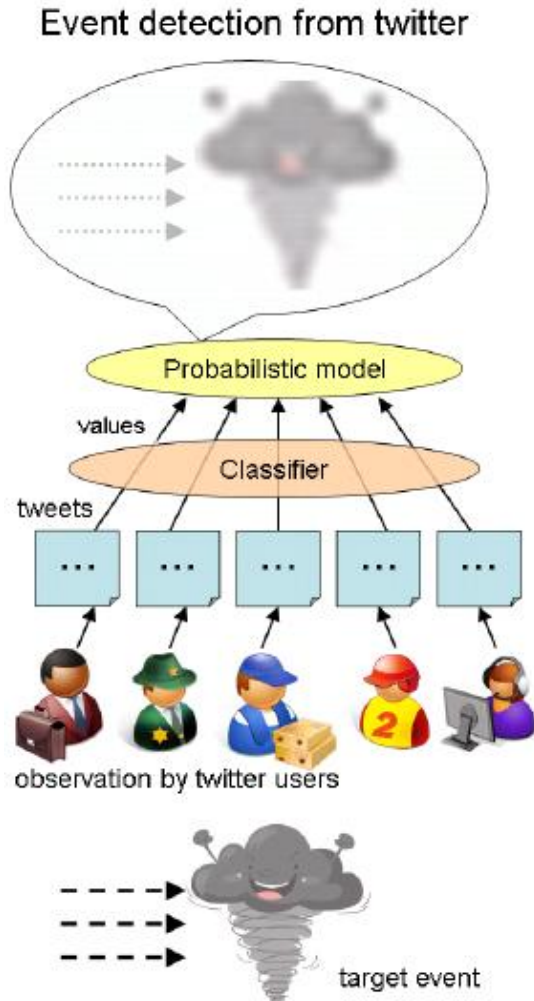
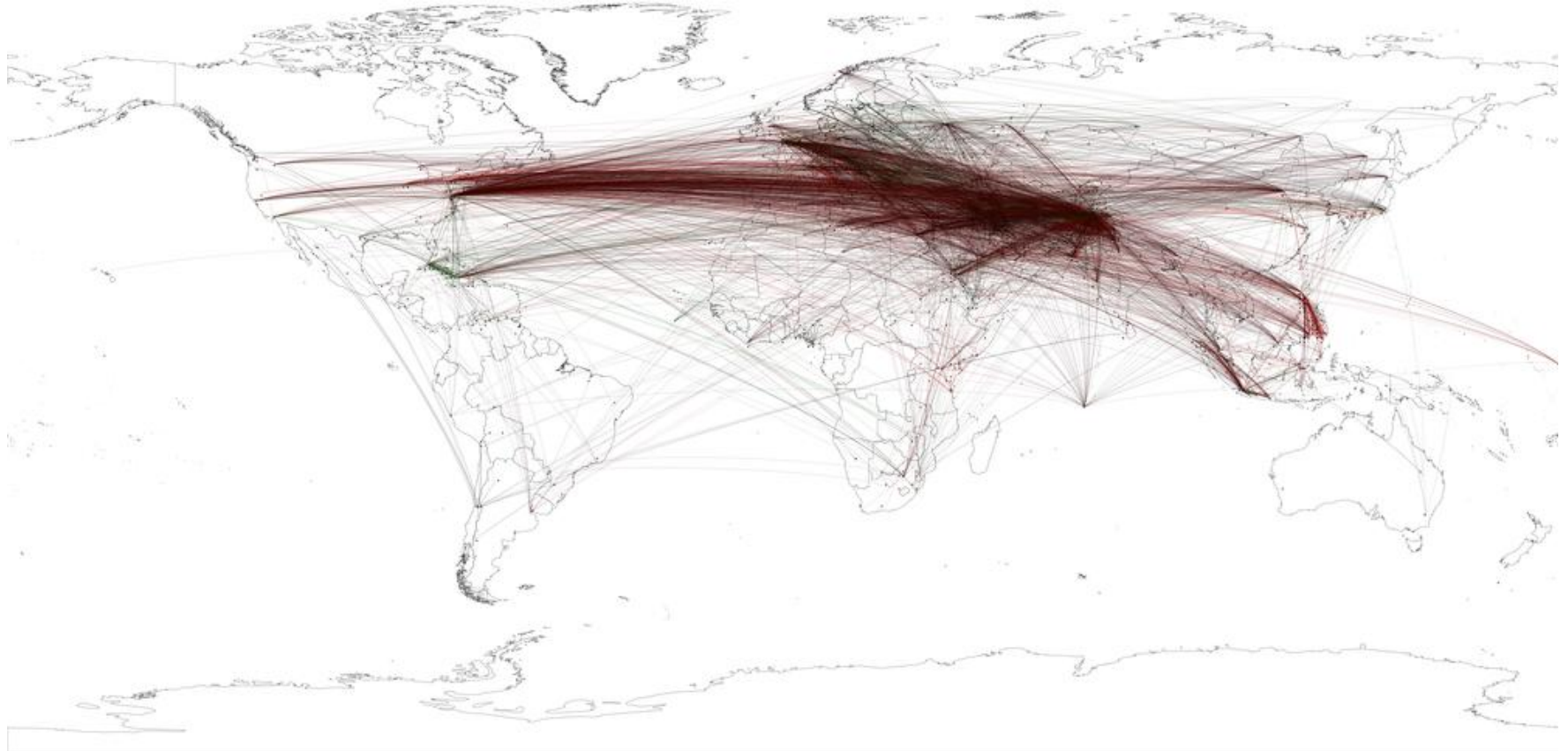


Figure 4: Number of tweets related to earthquakes.

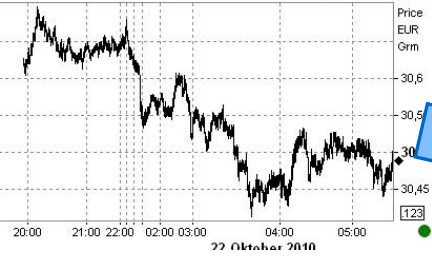
Geocoding – Tracking Osama Bin Laden with twitter



Source: Leetaru, Kalev (2011): Culturomics 2.0: Forecasting large-scale human behavior using global news media tone in time and space

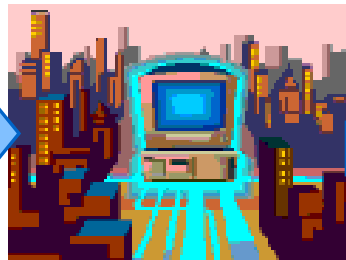
Financial Resources

Structured

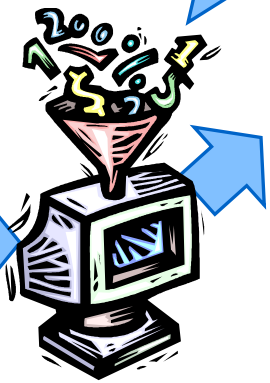


FIRST

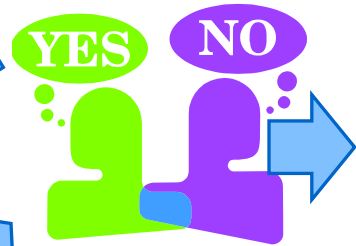
AUTOMATION



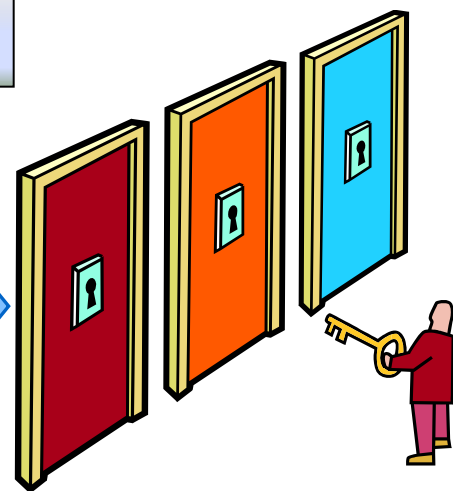
Acquisition



Processing



Analysis



Decision support

Unstructured

Blog, analysis, bulletin boards...
Unreliable, poor quality, noisy...



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Acknowledgement

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Ulli F. P. Spankowski, Associate Director
Stuttgart Financial / Boerse Stuttgart
Börsenstr. 4, 70174 Stuttgart
Germany