Can Google predict the stock market?

Tobias Preis
http://www.tobiaspreis.de
Financial markets: “big data”
The internet: “big data”
What *Google* knows about markets
**Aggregated Information**

(a) Public interest in stock exchange related search words (Google Trends)

(b) August 2008 - Lehman Brothers collapse

Index points

Search volume index

Lehman Brothers

Subprime

Financial Crisis

S&P 500

Google Trends based trading strategy

Search volume decreased: **BUY** index in week t+1

no of Google searches for keyword

<table>
<thead>
<tr>
<th>week</th>
<th>t-3</th>
<th>t-2</th>
<th>t-1</th>
<th>t</th>
</tr>
</thead>
</table>

The chart shows the number of Google searches for a keyword over four weeks: t-3, t-2, t-1, and t. The search volume decreased from t-3 to t, suggesting a potential buying opportunity in week t+1.
Google Trends based trading strategy

no of Google searches for keyword

Search volume decreased: BUY index in week t+1

Search volume increased: SELL index in week t+1
Google trading strategy for keyword “culture”

http://www.nature.com/srep/2013/130425/srep01684/full/srep01684.html
Google trading strategy for keyword “debt”

http://www.nature.com/srep/2013/130425/srep01684/full/srep01684.html
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Google trading strategy


http://www.nature.com/srep/2013/130425/srep01684/full/srep01684.html
What makes a keyword successful?
What makes a keyword successful?

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What makes a keyword successful?

Financial relevance

# occurrences in FT

# hits on Google

What Wikipedia knows about markets
Wikipedia: Financial topics

Moat, Curme, Avakian, Kenett, Stanley & Preis, Scientific Reports 3, 1801 (2013)
http://www.nature.com/srep/2013/130508/srep01801/full/srep01801.html
Wikipedia: Dow Jones companies

Moat, Curme, Avakian, Kenett, Stanley & Preis, Scientific Reports 3, 1801 (2013)
http://www.nature.com/srep/2013/130508/srep01801/full/srep01801.html

Views strategies profitable
Wikipedia: Actors and filmmakers?

Moat, Curme, Avakian, Kenett, Stanley & Preis, Scientific Reports 3, 1801 (2013)
http://www.nature.com/srep/2013/130508/srep01801/full/srep01801.html

Strategies NOT profitable