

The FCO Cockpit – Global Bubble Status Report

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Chair of Entrepreneurial Risk

June 1st, 2017

The FCO Cockpit – Global Bubble Status June 1st, 2017

What is this?

This monthly report discusses the historical evolution of bubbles in and between different asset classes and geographies.

It is the result of an extensive analysis done on the historical time series of 431 systemic assets and 852 single stocks. The systemic assets are bond, equity and commodity indices and a selection of currency pairs. The single stocks are mainly US and European, equities. The data is from Thomson Reuters.

In the first part of this report, we present the state of the world, based on the analysis of the systemic assets. In the second part, we zoom in on the bubble behavior of single stocks and discuss some specific cases.

⁺ For an intuitive explanation of the methodology and the specifics of the indicators that are used in this report, we refer to: D. Sornette and P. Cauwels, *Financial bubbles: mechanisms and diagnostics*. *Review of Behavioral Economics* 2 (3), 279-305 (2015) (<http://arxiv.org/abs/1404.2140> and <http://ssrn.com/abstract=2423790>)

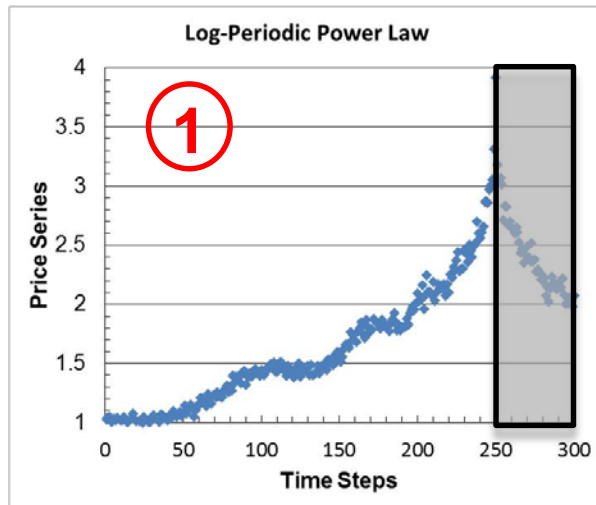
The FCO Cockpit – Global Bubble Status June 1st, 2017

How does it work?

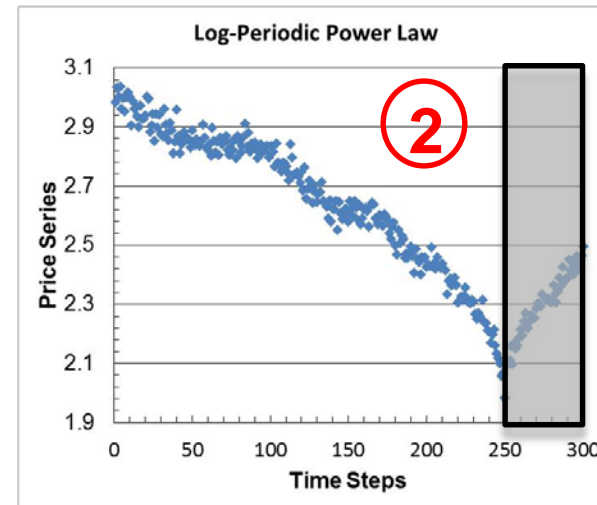
We use the Log-Periodic Power Law Singular (LPPLS) model to hunt for the distinct fingerprint of **Bubbles**:

1. The price rises **faster than exponentially**, so the logarithm of the price rises faster than linearly;
2. There are **accelerating oscillations**, with a distinct characteristic.

A bubble signal is identified if both of our bubble indicators, LPPL-Confidence and LPPL-Trust, are larger than 5%.



A **positive bubble** when
there is imitation in **buying**



A **negative bubble** when
there is imitation in **selling**

The FCO Cockpit – Global Bubble Status June 1st, 2017

General Result

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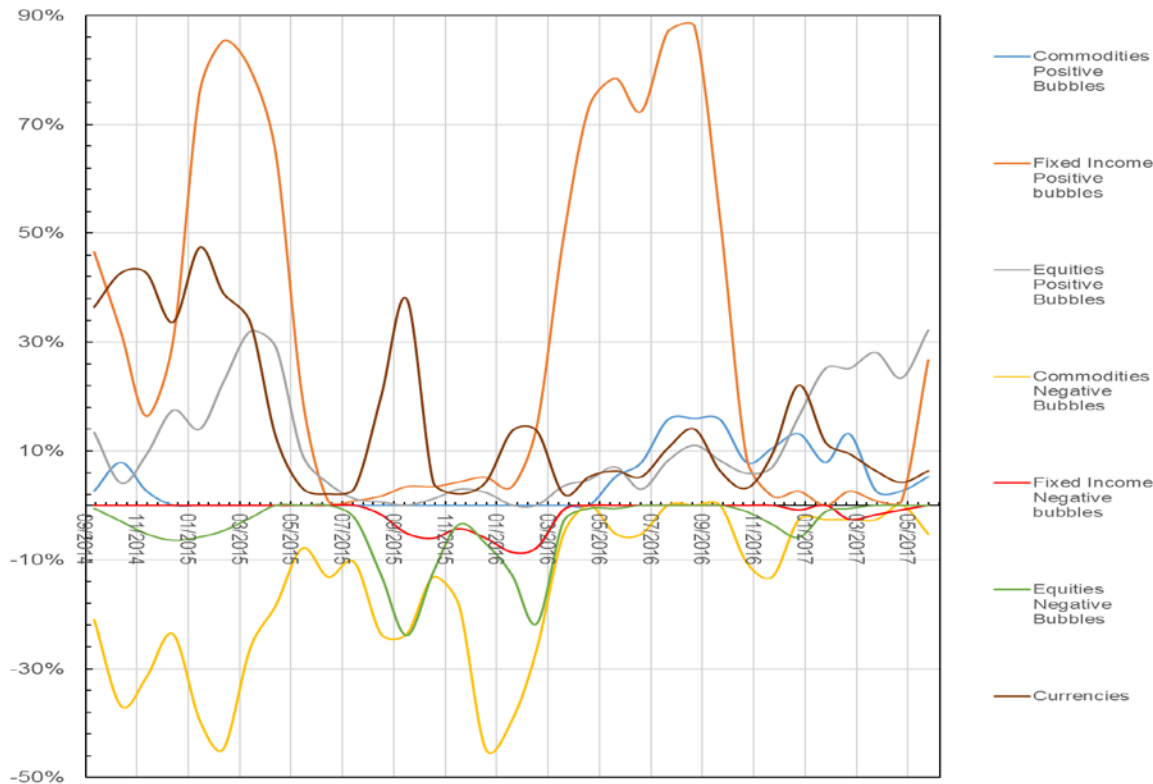
The big picture

One can observe the beginning of a trend in the growth of positive bubbles in the fixed income asset class.

The fraction of stocks diagnosed in a positive bubble state accelerated this month and exceeded 32%.

Mixed bubble signals still occur only in few commodity indices.

Historical evolution of the fraction of assets within an asset class that show significant bubble signals



*A positive bubble signal is an indication of herding when people start buying because prices go up.
A negative bubble signal is an indication of herding when people start selling because prices go down.*

The FCO Cockpit – Global Bubble Status June 1st, 2017

Other interesting highlights from this report

- A surge in bubble signals in the fixed income asset class; specifically in the financial bond indices;
- Four commodity indices are showing bubble signals, divided equally between positive and negative bubble signals. It is interesting that all of these four indices are agriculture indices;
- There is a significant increase in positive bubble signals in equities compared with last month. The most interesting result is found for the Netherlands, EUR STOXX and U.S. Nasdaq Composite indices which are showing signs of positive bubbles for the fourth consecutive month. Note that around 66% of the indices that are showing signs of bubbles are in Europe;
- In our analysis of single stocks, we find a weaker positive bubble in the sector *Semiconductors & Semiconductor Equipment*, which we reported in the previous months. At the same time, we find 15 out of 20 sectors have again a stronger positive bubble score this month, indicating that an overall rebound is continuing.

A positive bubble signal is an indication of herding when people start buying because prices go up.

A negative bubble signal is an indication of herding when people start selling because prices go down.

The FCO Cockpit – Global Bubble Status June 1st, 2017

Results per Asset Class

The FCO Cockpit – Global Bubble Status June 1st, 2017

Government bonds

Positive Bubbles	Yearly Return	DS LPPL Trust	DS LPPL Confidence
iBoxx USD Sovereigns Index	4.4%	14.0%	9.3%
iBoxx GBP Sovereigns Index	7.6%	10.5%	7.9%
iBoxx USD Supranationals Index	0.5%	5.5%	6.0%
Negative Bubbles			
None			

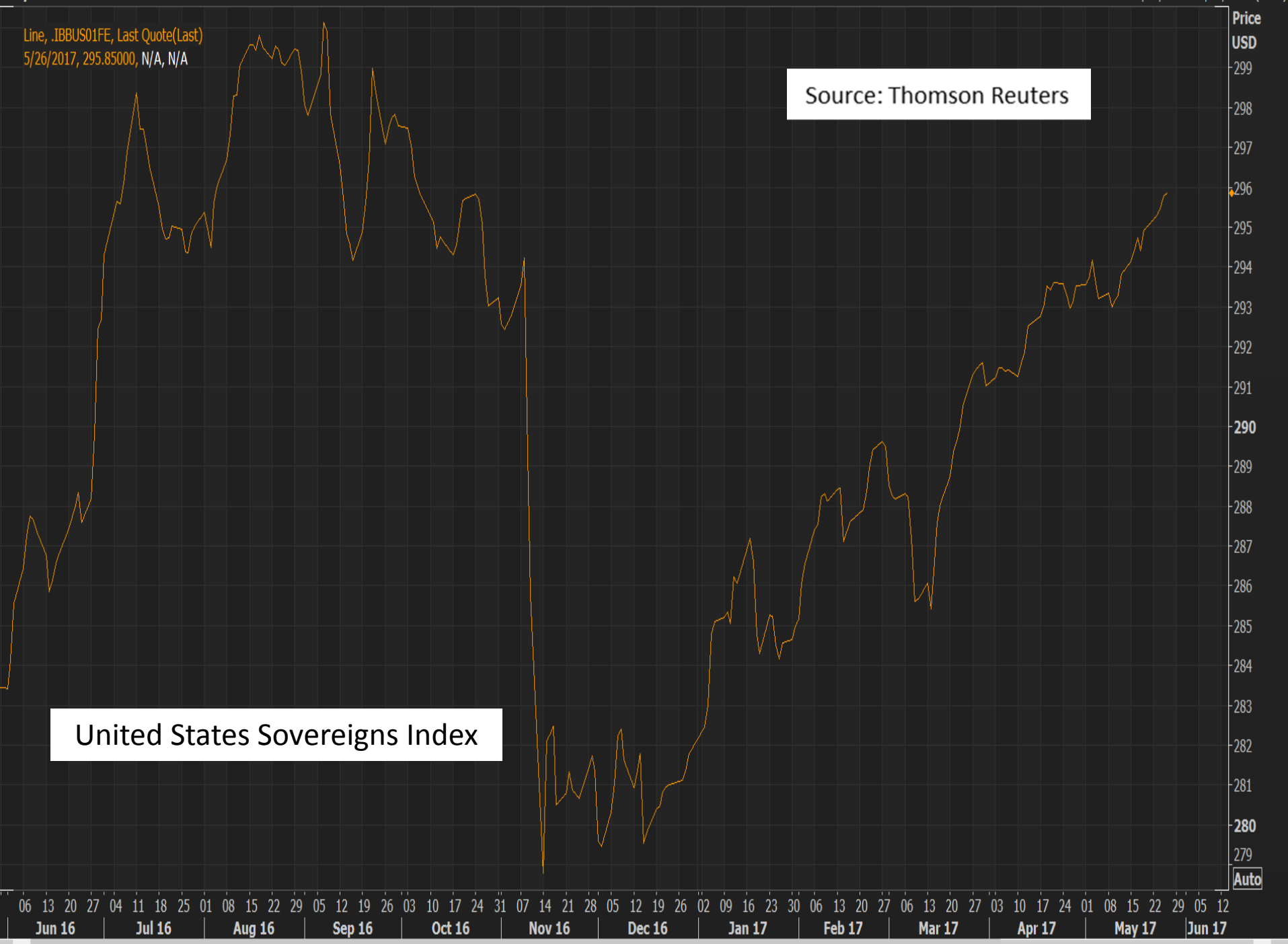
This month we see positive bubble signals in three of the 34 government bond indices that were analyzed. As shown in the table above, two are in the United States and the third is in the United Kingdom. This could be related to the recent political uncertainty surrounding the Trump administration in the case of the former, and the upcoming general elections in the case of the later.

It is worth mentioning that the negative bubble signals that were seen in the Luxembourg government bonds over the last two months disappeared.

Line, .IBBUS01FE, Last Quote(Last)
5/26/2017, 295.85000, N/A, N/A

Source: Thomson Reuters

United States Sovereigns Index



Line, .IBBGB0248, Last Quote(Last)

5/26/2017, 307.61470, N/A, N/A

Source: Thomson Reuters

United Kingdom Sovereigns Index

Price
GBP
307
306
305
304
303
302
301
300
299
298
297
296
295
294
293
292

Auto

06 13 20 27 04 11 18 25 01 08 15 22 29 05 12 19 26 03 10 17 24 31 07 14 21 28 05 12 19 26 02 09 16 23 30 06 13 20 27 03 10 17 24 01 08 15 22 29 05 12
Jun 16 Jun 16 Aug 16 Sep 16 Oct 16 Nov 16 Dec 16 Jan 17 Feb 17 Mar 17 Apr 17 May 17 Jun 17

The FCO Cockpit – Global Bubble Status June 1st, 2017

Corporate bonds

Sector Indices	Yearly Return	DS LPPL Trust	DS LPPL Confidence
Positive Bubbles			
iBoxx EUR Financial Services Subordinated Index	7.3%	32.7%	58.8%
iBoxx USD Insurance Subordinated Index	6.4%	28.8%	21.2%
iBoxx EUR Insurance Subordinated Index	10.3%	22.0%	44.2%
iBoxx EUR Insurance Index	7.5%	19.0%	31.0%
iBoxx EUR Banks Subordinated Index	5.8%	18.8%	36.3%
Negative Bubbles			
None			

The number of corporate bond indices showing positive bubble signals surged this month. Of the 82 government bond indices that were analyzed, 27 show positive bubble signals, that is 33% of the set.

The table above shows the indices with the five strongest signals, all are financial indices (63% of the corporate bonds showing positive bubble signals are in the financial sector).

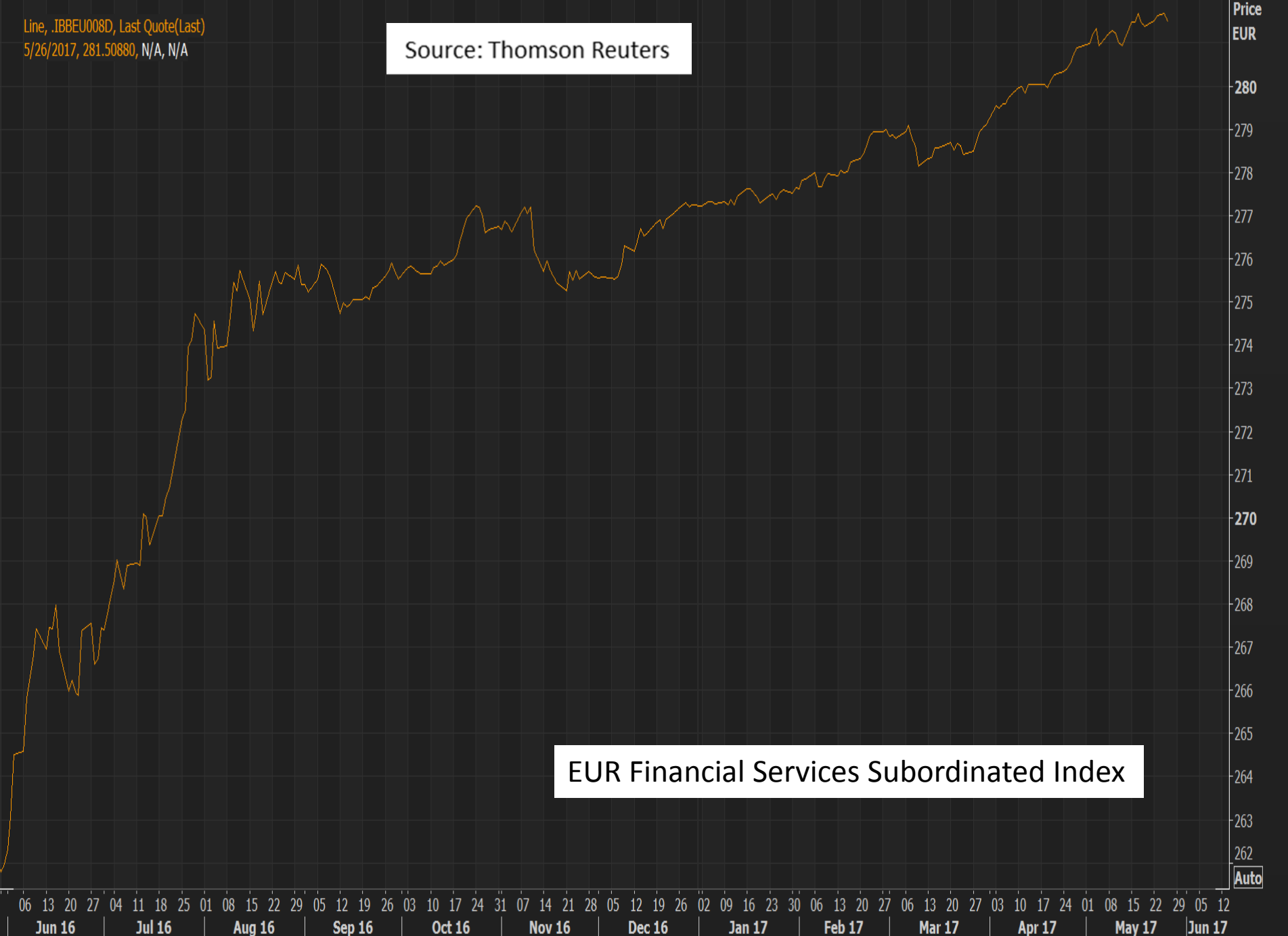
It is worth mentioning that the European financial subordinated index is showing positive bubble signals for the third consecutive month. The figure on the next page shows the fast growing price trajectory that was seen in the index especially after the support from the results of the French and Dutch elections.

Line, .IBBEU008D, Last Quote(Last)
5/26/2017, 281.50880, N/A, N/A

Source: Thomson Reuters

EUR Financial Services Subordinated Index

Price
EUR
280
279
278
277
276
275
274
273
272
271
270
269
268
267
266
265
264
263
262
Auto



The FCO Cockpit – Global Bubble Status June 1st, 2017

Commodities

Commodities Indices	Yearly Return	DS LPPL Trust		DS LPPL Confidence	
Positive Bubbles					
Live Cattle ER Index	15.4%	9.8%		29.6%	
Feeder Cattle ER Index	10.1%	<div></div>	8.9%	<div></div>	28.0%
Negative Bubbles					
Softs ER Index	-8.2%	<div></div>	9.3%	<div></div>	22.8%
Sugar ER Index	-16.5%	<div></div>	8.5%	<div></div>	19.7%

We see mixed bubble signals among a few commodity indices. There are four indices showing bubble signals this month, two of them are showing positive bubble signals and two are showing negative bubble signals. It is interesting that all of these four indices are agriculture indices.

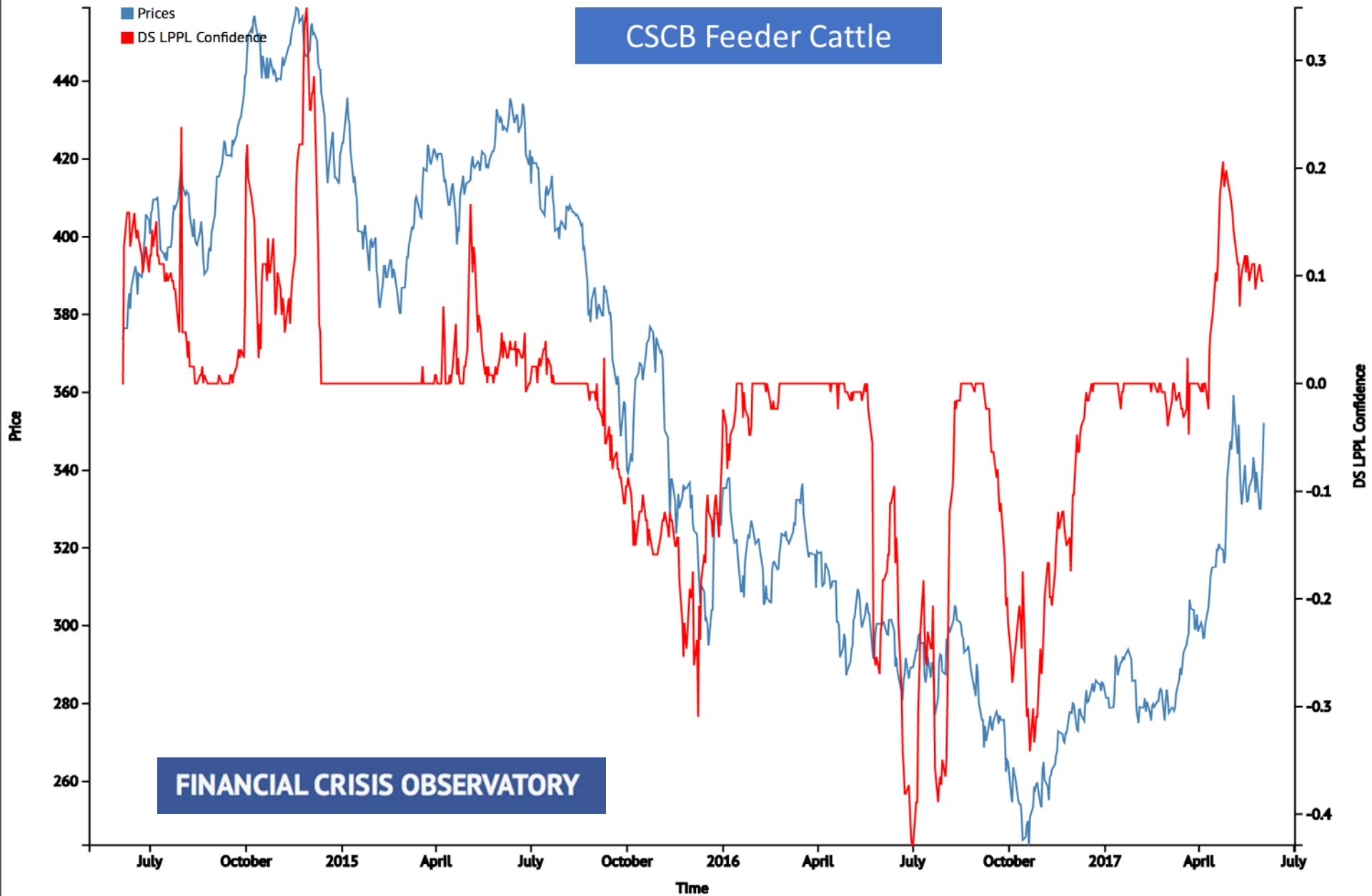
It is worth stressing that the positive bubble signals that were shown in the Aluminum index over the last two months, disappeared.

Date: 2017-06-04

Name: CSCB Feeder Cattle ER

Indicator: DS LPPL Confidence

Early bubble warning - long time scale



The FCO Cockpit – Global Bubble Status June 1st, 2017

Currencies

FX	Yearly Return	DS LPPL Trust	DS LPPL Confidence
US Dollar/Hong Kong Dollar	0.3%	41.7%	51.9%
Polish Zloty/Swiss Franc	3.3%	23.9%	39.5%
US Dollar/Indian Rupee	-3.8%	16.4%	5.9%
US Dollar/Polish Zloty	-5.2%	8.7%	23.4%
Polish Zloty/Euro	4.9%	5.5%	12.0%
US Dollar/Czech Koruna	-2.6%	5.4%	14.9%

There are signs of a positive bubble in the Polish Zloty for the first month. Three of the six pairs that are showing bubble signals are crossed with the Polish Zloty. In addition, the Indian Rupee is showing positive bubble signals for the second consecutive month.

Finally, the positive bubble signals that were shown in the Taiwan Dollar over the last five months, and in the Russian Rouble over the last month, disappeared.

Date: 2017-05-29

Name: INDIAN RUPEE TO EURO

Indicator: DS LPPL Confidence ▼

Bubble end flag - long time scale ▼



Date: 2017-05-27

Name: POLISH ZLOTY TO EURO

Indicator: DS LPPL Confidence

Bubble end flag - long time scale



The FCO Cockpit – Global Bubble Status June 1st, 2017

Stocks country indices

Equities Countires Indices	Yearly Return	DS LPPL Trust	DS LPPL Confidence	Country
OMX Riga_GI	32.6%	28.2%	42.9%	Latvia
Austrian Traded Index	41.2%	26.2%	49.8%	Austria
Amsterdam Exchanges Index	17.6%	24.8%	13.1%	Netherlands
IBEX 35 Index	20.1%	22.8%	42.6%	Spain
CAC 40 Index	18.3%	22.7%	54.0%	France
EURO STOXX INDEX	17.7%	22.2%	38.9%	EU
Korea SE Kospi Index	20.3%	20.3%	42.3%	Korea
IGPA Index	25.7%	19.3%	9.1%	Chile
EURO STOXX 50 EUR Price Index	16.5%	18.3%	31.6%	EU
PX Prague SE Index	14.0%	16.6%	14.7%	Czech Republic
Bursatil Index	381.8%	15.3%	20.0%	Venezuela
BEL 20 Index	10.9%	14.2%	40.6%	Belgium
Deutsche Boerse DAX Index	22.7%	14.0%	14.7%	Germany
Buenos Aires SE Merval Index	74.2%	12.8%	21.2%	Argentina
Athex General Composite Share Price Index	20.6%	12.6%	32.9%	Greece
NASDAQ Composite Index	26.7%	11.2%	15.1%	United States
OMX Helsinki 25 Index	25.3%	11.0%	23.9%	Finland
FTSE Italia All-Share Index	17.7%	9.4%	23.7%	Italy
New Zealand Se Top50 Free Index	7.1%	8.5%	23.6%	New Zealand
STOXX Europe 50 EUR Price Index	10.5%	8.5%	14.7%	EU
FTSE Bursa Malaysia KLCI Index	8.7%	8.1%	10.8%	Malaysia
Euronext Lisbon PSI 20 Index	5.3%	7.4%	23.5%	Portugal
OMX Vilnius_GI	13.2%	6.8%	17.9%	Lithuania
OMX Nordic 40 Index	8.8%	6.7%	14.1%	Nordic Countries
ISEQ Overall Price Index	8.0%	5.9%	20.8%	Ireland
BIST 100 Index	25.0%	5.6%	8.5%	Turkey
OMX Copenhagen 20 Index	-0.8%	5.6%	18.9%	Denmark
Swiss Market Index	9.9%	5.3%	18.9%	Switzerland
Negative Bubbles				
None				

The FCO Cockpit – Global Bubble Status June 1st, 2017

Stocks country indices

There is a tendency for the appearance of new positive bubbles in equities. The most interesting result is found for the Netherlands, EUR STOXX and U.S. Nasdaq Composite indices that are showing signs of positive bubbles for the fourth consecutive month. In addition, the strongest signals are found for the Latvia stock market index.

It is worth mentioning that around 66% of the indices that are showing signs of bubbles are in Europe. Undoubtedly the European shares got support over the last three months after both the Dutch and French elections.

Finally, the positive bubble signals that were shown in the Kuwait stock market index and STOXX Europe 50 price indices over the last four months, disappeared.

Date: 2017-05-29

Name: OMX RIGA (OMXR)

Indicator: DS LPPL Confidence



Bubble end flag - long time scale



Prices
DS LPPL Confidence

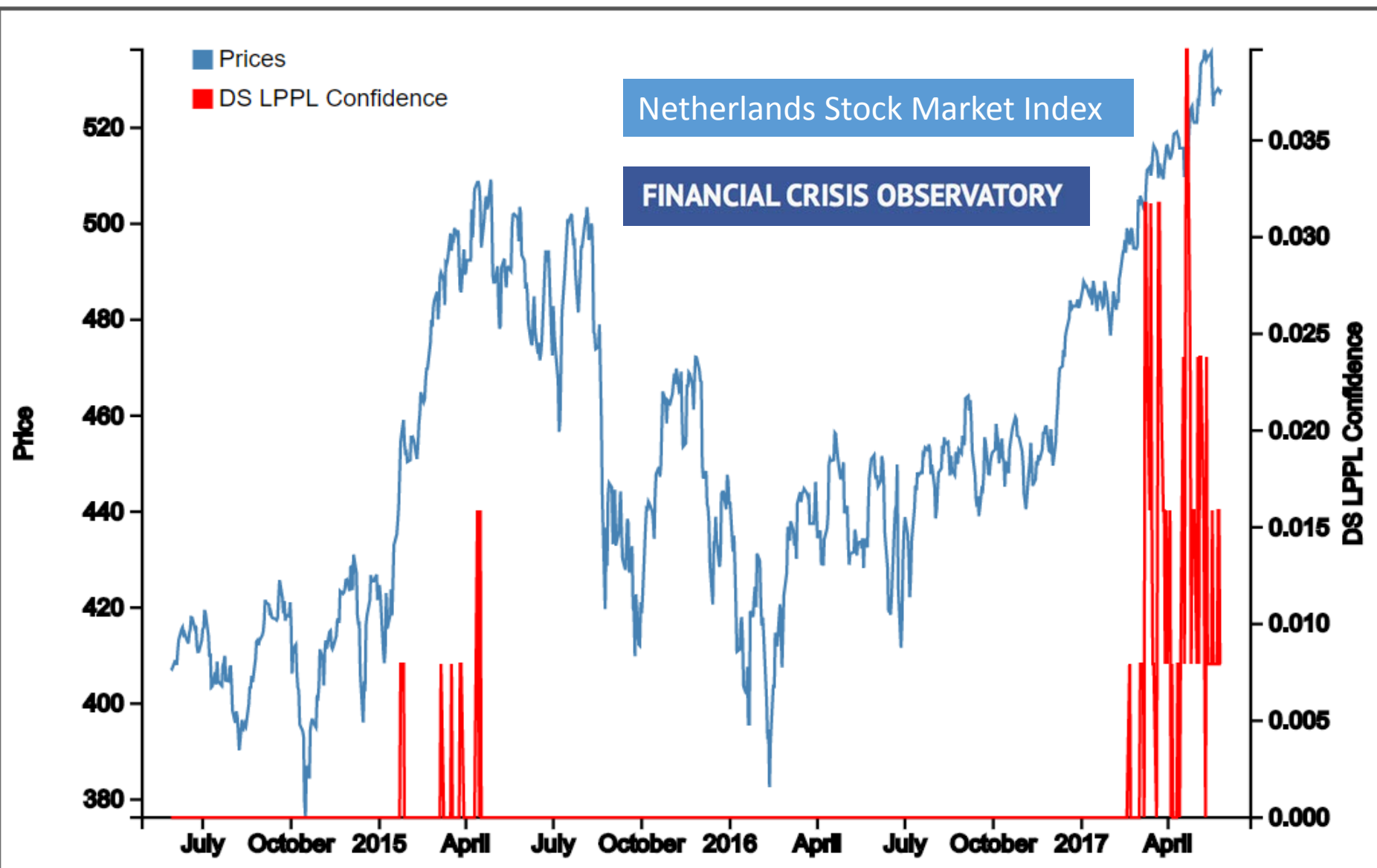


Date: 2017-05-29

Name: AEX INDEX (AEX)

Indicator: DS LPPL Confidence ▼

Bubble end flag - long time scale ▼



The FCO Cockpit – Global Bubble Status June 1st, 2017

Single Stocks

The FCO Cockpit – Global Bubble Status June 1st, 2017

What is this?

For 852 stocks, we calculate the bubble warning indicators as well as two financial strength indicators, which indicate the fundamental value of the stock and the growth capability respectively.

The stocks are the constituents of the Stoxx Europe 600, the S&P 500 and the Nasdaq 100 indices. From these, all doubles and stocks with incomplete data are removed. Because our financial strength indicators are specifically designed for corporates, all financial institutions are taken out of the set as well.

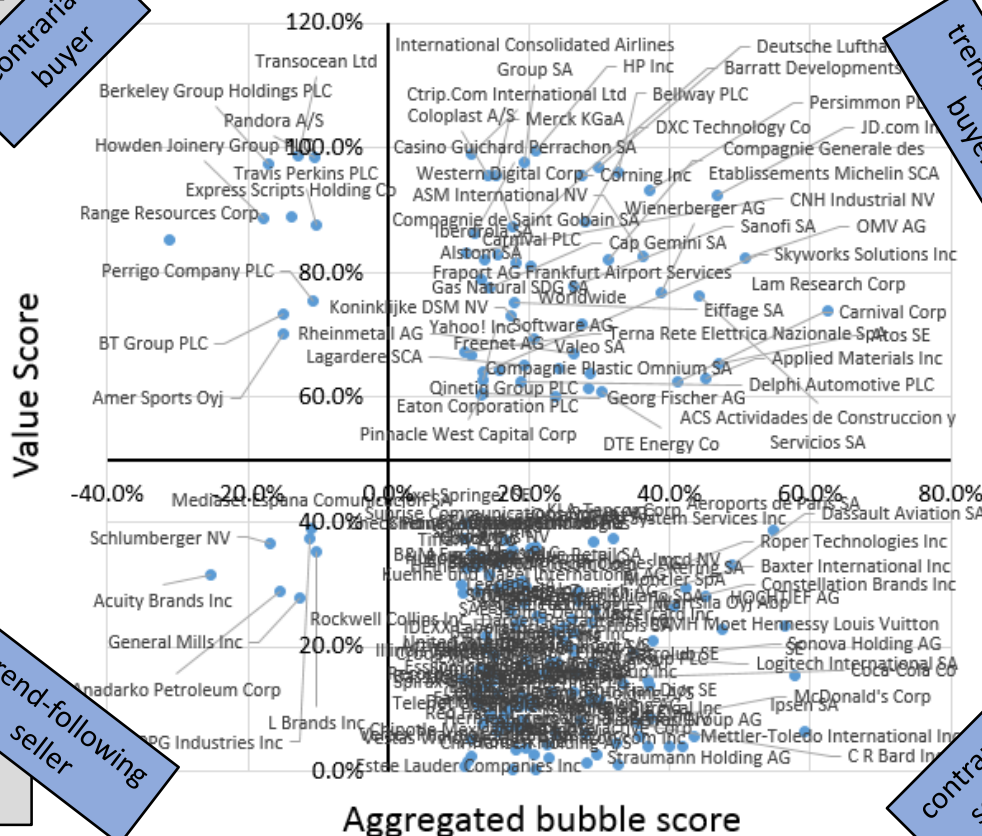
The two financial strength indicators are:

- A value score that is based on the ROIC (Return on Invested Capital) taking into account the EV (Enterprise Value) to normalize for high/low market valuations and/or high/low debt;
- A growth score that has characteristics similar to the PEG ratio, which is the Price to Earnings ratio normalized for expected EPS-growth (Earnings per Share).

Both scores give a value between zero and one, one being the best of the set and zero the worst, so the higher the score, the higher the financial strength.

The FCO Cockpit – Global Bubble Status June 1st, 2017

The four quadrants: value versus bubble score



By plotting the value score against the aggregated bubble score, we can divide the stocks into four quadrants*:

1. [Quadrant 1](#): Stocks with a strong positive bubble score and a strong value score (e.g. JD.com Inc);
2. [Quadrant 2](#): Stocks with a strong positive bubble score and a weak value score (e.g. Ipsen SA);
3. [Quadrant 3](#): Stocks with a strong negative bubble score and a weak value score (e.g. Acuity Brands Inc);
4. [Quadrant 4](#): Stocks with strong negative bubble score and a strong financial strength (e.g. BT Group PLC)

*A strong positive bubble signal is identified if bubble score is larger than 10%, and a strong negative bubble signal is identified if bubble score is smaller than -10%.
A strong value score is identified if value score is larger than 60%, and a weak value score is identified if value score is smaller than 40%.

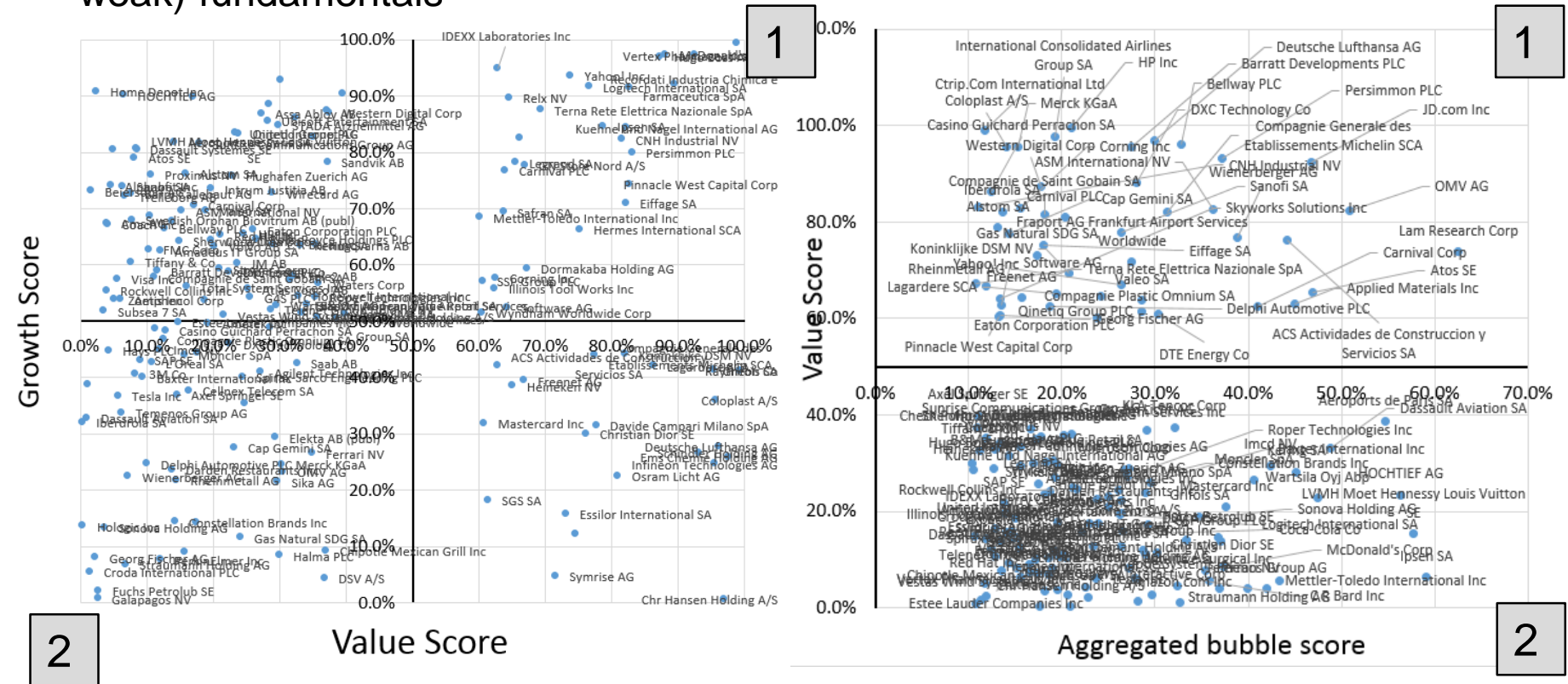
The FCO Cockpit – Global Bubble Status June 1st, 2017

Each quadrant has its own specs:

1. [Quadrant 1](#): Stocks with a strong value score are cheap relative to their earnings potential. The strong positive bubble signal should be interpreted as a momentum indicator possibly the consequence of a repricing based on the fundamentals. **As an investor, one could be a trend-following buyer.**
2. [Quadrant 2](#): Stocks with a weak value score are expensive relative to their earnings potential. The strong positive bubble signal is an indication of sentiment and herding increasing the price until it is not linked to fundamentals anymore. **As an investor, one could be a contrarian seller.**
3. [Quadrant 3](#): These stocks are expensive relative to their earnings potential. On top of that, there are clear negative bubble signals. Such stocks should be considered as falling knives. **As an investor, one could be a trend-following seller.**
4. [Quadrant 4](#): These stocks are cheap relative to their financial performance. The strong negative bubble signal is an indication of sentiment and herding. These stocks can be considered as over-sold. **As an investor, one could be a contrarian buyer.**

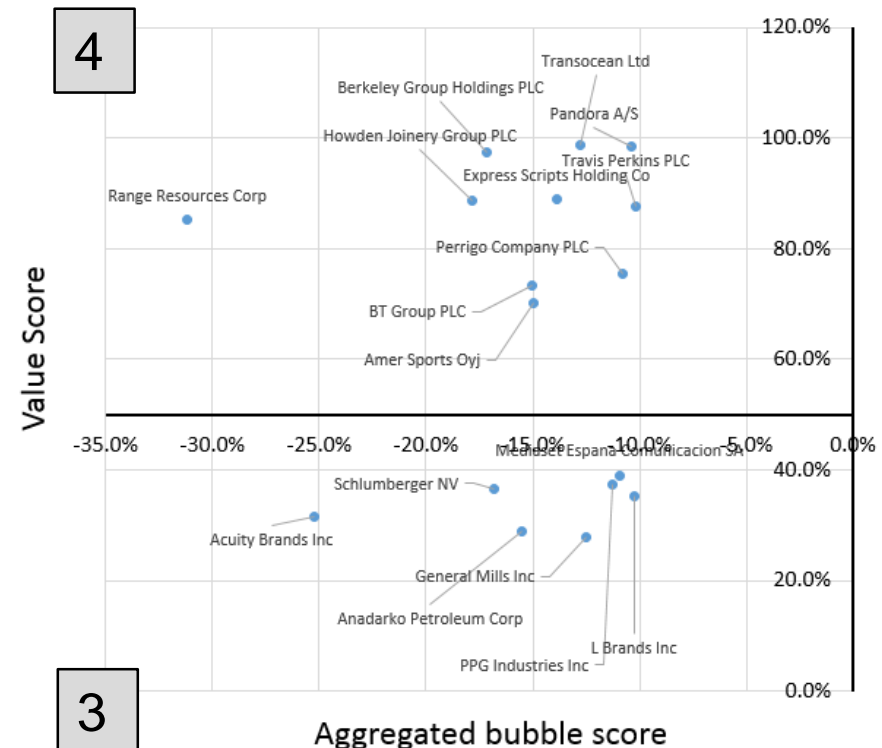
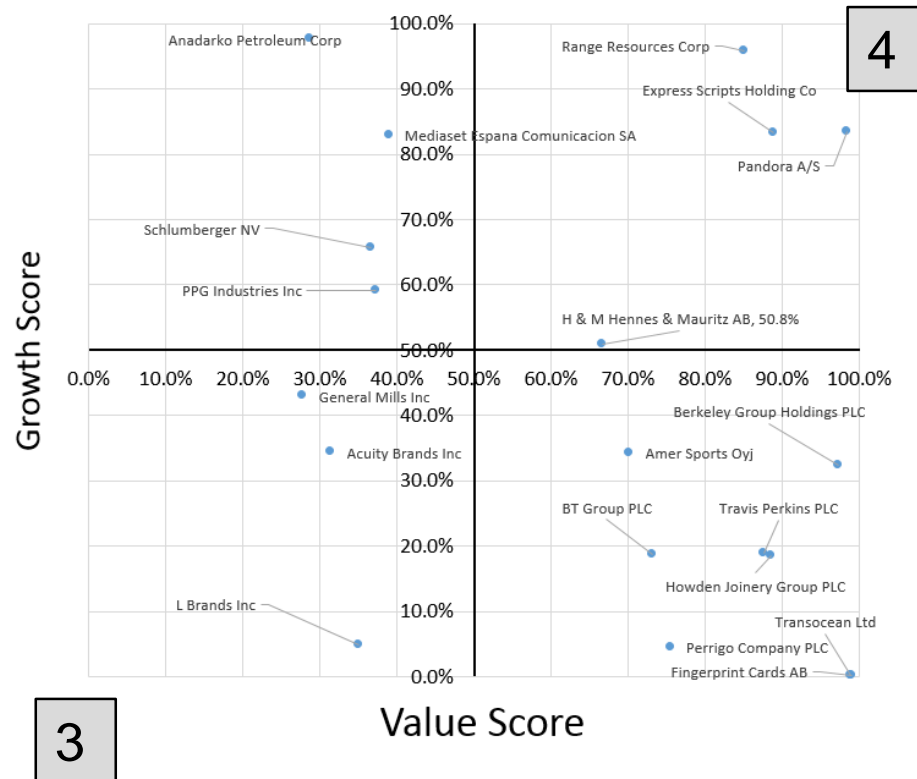
The FCO Cockpit – Global Bubble Status June 1st, 2017

Quadrant 1 and 2 stocks: strong positive bubble signals with strong (respectively weak) fundamentals



The FCO Cockpit – Global Bubble Status June 1st, 2017

Quadrant 3 and 4 stocks: strong negative bubble signals with weak respectively strong fundamentals



The FCO Cockpit – Global Bubble Status June 1st, 2017

Quadrant 1 stocks: strong positive bubble signals with strong fundamentals

Company Name	Country of Headquarters	GICS Sector Name	GICS Industry Group Name	Yearly Return	Bubble Score	Value Score	Growth Score
Ctrip.Com International Ltd	China	Consumer Discretionary	Retailing	19.4%	11.7%	98.9%	99.4%
JD.com Inc	China	Consumer Discretionary	Retailing	62.7%	46.8%	92.5%	97.3%
Lam Research Corp	United States of America	Information Technology	Semiconductors & Semiconductor Equipment	87.4%	62.6%	73.8%	93.7%
Skyworks Solutions Inc	United States of America	Information Technology	Semiconductors & Semiconductor Equipment	59.4%	13.4%	64.0%	76.8%
Western Digital Corp	United States of America	Information Technology	Technology Hardware & Equipment	93.5%	17.7%	87.3%	96.9%
Yahoo! Inc	United States of America	Information Technology	Software & Services	32.6%	11.8%	66.8%	39.4%
Barratt Developments PLC	United Kingdom	Consumer Discretionary	Consumer Durables & Apparel	3.5%	27.4%	95.5%	24.6%
Bellway PLC	United Kingdom	Consumer Discretionary	Consumer Durables & Apparel	3.4%	32.8%	96.1%	27.7%
Carnival PLC	United Kingdom	Consumer Discretionary	Consumer Services	45.8%	20.3%	81.0%	22.5%
Freenet AG	Germany	Telecommunication Services	Telecommunication Services	28.3%	15.7%	64.2%	52.5%
Fraport AG Frankfurt Airport Services Worldwide	Germany	Industrials	Transportation	40.3%	27.5%	71.6%	4.7%
Deutsche Lufthansa AG	Germany	Industrials	Transportation	37.3%	30.0%	96.9%	0.6%
Merck KGaA	Germany	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	19.5%	15.2%	95.7%	35.9%
Rheinmetall AG	Germany	Industrials	Capital Goods	38.4%	26.4%	66.9%	77.7%
Software AG	Germany	Information Technology	Software & Services	22.3%	13.5%	62.8%	42.1%
Coloplast A/S	Denmark	Health Care	Health Care Equipment & Services	12.1%	14.1%	95.4%	41.3%
ACS Actividades de Construcción y Servicios SA	Spain	Industrials	Capital Goods	24.9%	44.2%	76.2%	29.9%
Gas Natural SDG SA	Spain	Utilities	Utilities	26.0%	17.3%	73.1%	15.7%
Iberdrola SA	Spain	Utilities	Utilities	21.7%	13.6%	82.2%	71.0%
Alstom SA	France	Industrials	Capital Goods	38.1%	13.1%	78.8%	84.6%
Atos SE	France	Information Technology	Software & Services	53.7%	46.9%	65.5%	78.2%
Cap Gemini SA	France	Information Technology	Software & Services	7.5%	14.4%	77.5%	43.9%
Casino Guichard Perrachon SA	France	Consumer Staples	Food & Staples Retailing	2.7%	12.3%	86.3%	42.0%
Eiffage SA	France	Industrials	Capital Goods	22.1%	18.0%	75.2%	66.3%
Valeo SA	France	Consumer Discretionary	Automobiles & Components	37.1%	28.6%	63.7%	69.4%

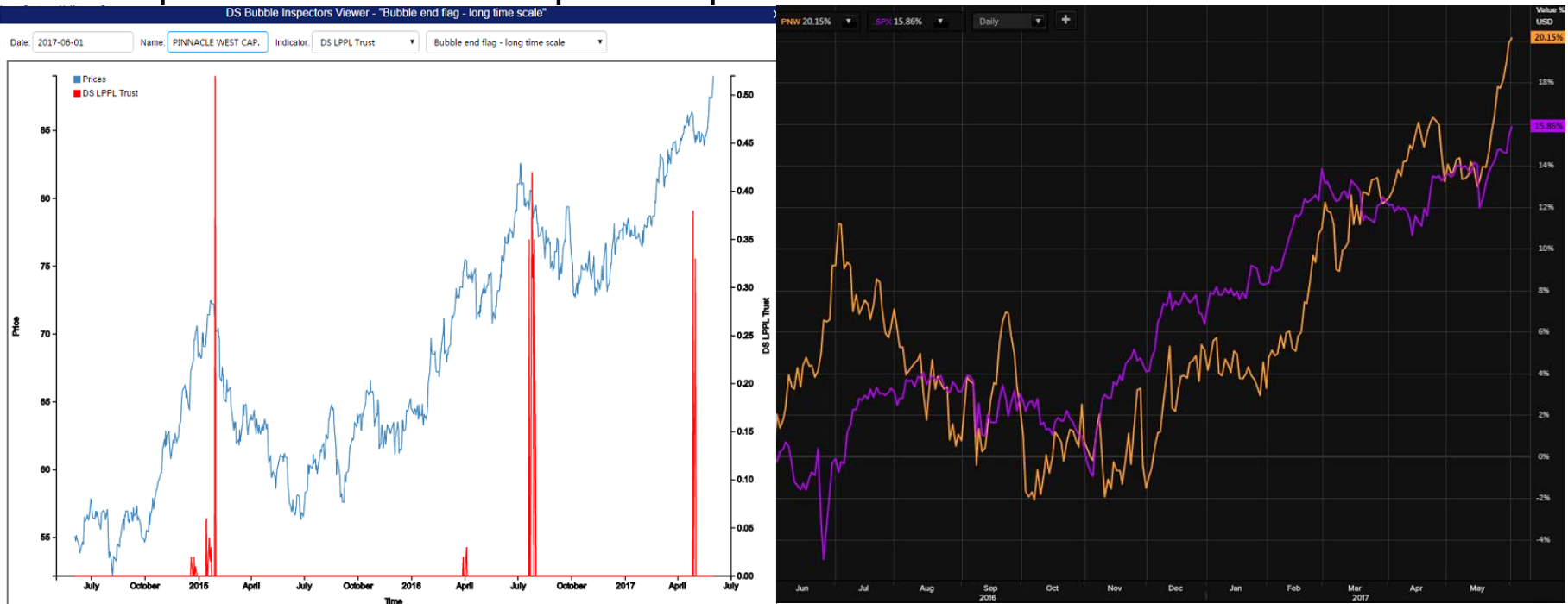
The FCO Cockpit – Global Bubble Status June 1st, 2017

Quadrant 1 stocks: strong positive bubble signals with strong fundamentals

Company Name	Country of Headquarters	GICS Sector Name	GICS Industry Group Name	Yearly Return	Bubble Score	Value Score	Growth Score
Compagnie Generale des Etablissements Michelin SCA	France	Consumer Discretionary	Automobiles & Components	22.6%	31.2%	82.0%	44.1%
Lagardere SCA	France	Consumer Discretionary	Media	31.5%	19.4%	65.1%	38.5%
Compagnie Plastic Omnium SA	France	Consumer Discretionary	Automobiles & Components	10.4%	24.1%	64.6%	89.7%
Compagnie de Saint Gobain SA	France	Industrials	Capital Goods	24.1%	18.1%	81.6%	82.3%
Sanofi SA	France	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	19.6%	26.3%	77.7%	31.5%
ASM International NV	Netherlands	Information Technology	Semiconductors & Semiconductor Equipment	52.2%	36.2%	82.6%	91.5%
Koninklijke DSM NV	Netherlands	Materials	Materials	23.9%	20.7%	69.4%	87.6%
CNH Industrial NV	United Kingdom	Industrials	Capital Goods	55.8%	11.1%	83.1%	79.9%
Terna Rete Elettrica Nazionale SpA	Italy	Utilities	Utilities	0.9%	10.7%	67.3%	59.4%
International Consolidated Airlines Group SA	United Kingdom	Industrials	Transportation	12.8%	19.3%	97.5%	25.8%
OMV AG	Austria	Energy	Energy	85.2%	50.9%	82.3%	84.4%
Wienerberger AG	Austria	Materials	Materials	29.9%	38.9%	76.6%	91.7%
Persimmon PLC	United Kingdom	Consumer Discretionary	Consumer Durables & Apparel	16.8%	37.1%	93.2%	26.6%
Qinetiq Group PLC	United Kingdom	Industrials	Capital Goods	27.0%	28.6%	61.4%	18.2%
Georg Fischer AG	Switzerland	Industrials	Capital Goods	15.1%	13.4%	60.7%	57.2%
Carnival Corp	United States of America	Consumer Discretionary	Consumer Services	34.2%	41.1%	62.6%	57.6%
Delphi Automotive PLC	United Kingdom	Consumer Discretionary	Automobiles & Components	29.4%	18.7%	62.4%	55.9%
DTE Energy Co	United States of America	Utilities	Utilities	20.8%	30.3%	60.8%	31.8%
DXC Technology Co	United States of America	Information Technology	Software & Services	57.6%	28.0%	88.1%	97.4%
Eaton Corporation PLC	Ireland; Republic of	Industrials	Capital Goods	25.6%	23.8%	60.1%	68.4%
Corning Inc	United States of America	Information Technology	Technology Hardware & Equipment	39.3%	15.6%	82.7%	74.3%
HP Inc	United States of America	Information Technology	Technology Hardware & Equipment	40.2%	21.0%	99.4%	41.2%
Pinnacle West Capital Corp	United States of America	Utilities	Utilities	20.1%	13.2%	60.4%	51.5%
Intrum Justitia AB	Sweden	Industrials	Commercial & Professional Services	0.8%	27.4%	74.5%	12.2%
JM AB	Sweden	Consumer Discretionary	Consumer Durables & Apparel	38.8%	54.0%	89.6%	92.1%
Trelleborg AB	Sweden	Industrials	Capital Goods	31.2%	43.5%	66.2%	82.5%

The FCO Cockpit – Global Bubble Status June 1st, 2017

Quadrant 1 stocks: strong positive bubble signals with strong fundamentals, example Pinnacle West Capital Corp.



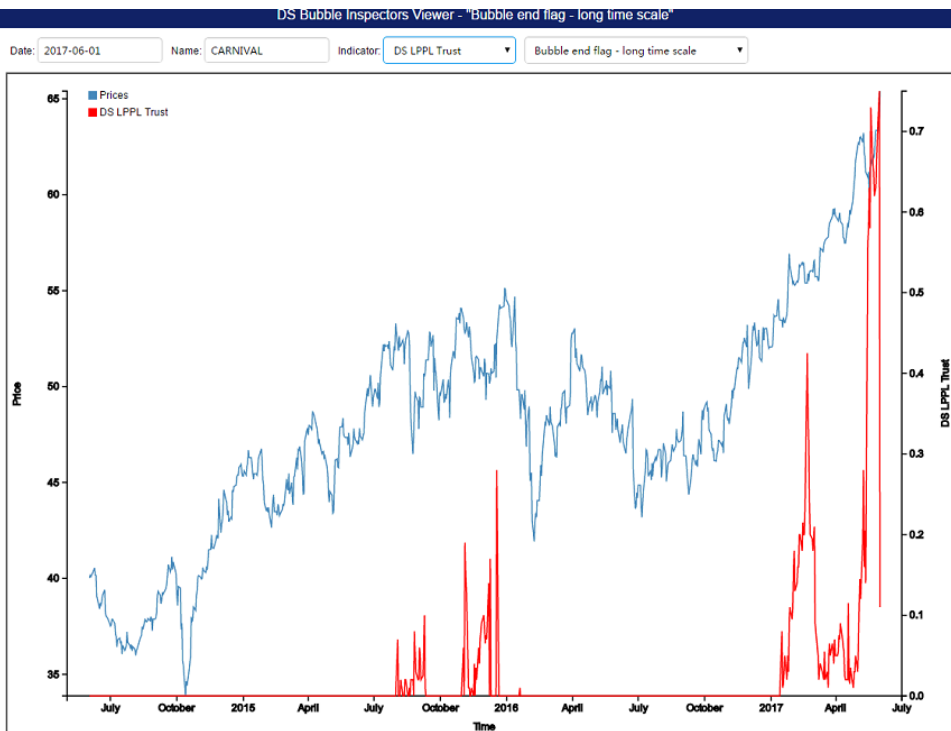
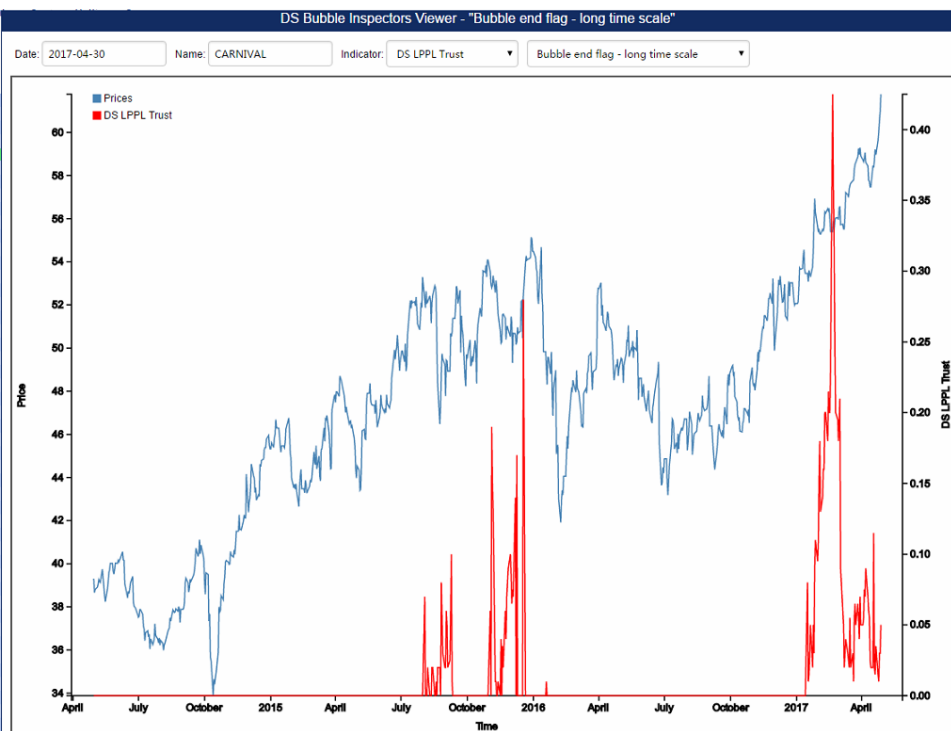
The left graph is a standard output from the Financial Crisis Observatory. It shows the historical price evolution of the stock in blue (left hand scale) and the calculated bubble warning index DS LPPL Trust in red (right hand scale). We can see a clearly spiking warning, indicating the convergence towards the end of a bubble-like regime. The right graph shows the outperformance of the stock over the last year (orange) with respect to the S&P 500 benchmark (purple), which is almost 5%.

Last month example: strong positive bubble signals with strong fundamentals, Carnival Corp.

Note that the stock has gone up again by 8 percent, which is in synchrony with the strong fundamentals, while our DS LPPL trust indicator quantifies a strong remaining positive sentiment. One should remain cautious as this stock is still identified with strong bubble signal this month and could crash soon.

Last month signal (1st May. 2017)

This month signal (1st Jun. 2017)



The FCO Cockpit – Global Bubble Status June 1st, 2017

Quadrant 2 stocks: strong positive bubble signals with weak fundamentals

This month we again observe an abnormally large number of stocks in this Quadrant.

This suggests that the fundamentals are still dominantly weak while there is a general positive investment sentiment, possibly in denial of the weakness of the existing recovery.

The FCO Cockpit – Global Bubble Status June 1st, 2017

Quadrant 2 stocks: strong positive bubble signals with weak fundamentals

Company Name	Country of Headquarters	GICS Sector Name	GICS Industry Group Name	Yearly Return	Bubble Score	Value Score	Growth Score
Adobe Systems Inc	United States of America	Information Technology	Software & Services	42.6%	32.3%	4.6%	74.1%
Autodesk Inc	United States of America	Information Technology	Software & Services	91.8%	17.6%	0.4%	13.6%
Amazon.com Inc	United States of America	Consumer Discretionary	Retailing	37.6%	32.7%	1.1%	38.7%
Activision Blizzard Inc	United States of America	Information Technology	Software & Services	49.2%	14.1%	15.7%	8.9%
Cerner Corp	United States of America	Health Care	Health Care Equipment & Services	17.5%	20.2%	11.3%	48.7%
Check Point Software Technologies Ltd	Israel	Information Technology	Software & Services	31.9%	14.3%	31.6%	57.3%
Electronic Arts Inc	United States of America	Information Technology	Software & Services	47.7%	23.9%	17.6%	44.4%
Expedia Inc	United States of America	Consumer Discretionary	Retailing	29.3%	13.4%	13.8%	67.8%
Fiserv Inc	United States of America	Information Technology	Software & Services	18.9%	18.5%	10.4%	68.8%
Alphabet Inc	United States of America	Information Technology	Software & Services	31.1%	23.0%	17.5%	14.2%
Hologic Inc	United States of America	Health Care	Health Care Equipment & Services	25.9%	21.1%	24.8%	35.3%
IDEXX Laboratories Inc	United States of America	Health Care	Health Care Equipment & Services	92.3%	15.0%	18.7%	53.8%
Intuitive Surgical Inc	United States of America	Health Care	Health Care Equipment & Services	44.1%	35.8%	5.6%	36.7%
KLA-Tencor Corp	United States of America	Information Technology	Semiconductors & Semiconductor Equipment	42.6%	32.1%	37.4%	87.1%
Liberty Interactive Corp	United States of America	Consumer Discretionary	Retailing	59.4%	29.7%	2.6%	0.7%
Marriott International Inc	United States of America	Consumer Discretionary	Consumer Services	63.0%	19.8%	10.6%	76.1%
Microsoft Corp	United States of America	Information Technology	Software & Services	31.8%	26.8%	28.6%	52.1%
Priceline Group Inc	United States of America	Consumer Discretionary	Retailing	48.5%	30.2%	11.5%	58.9%
PayPal Holdings Inc	United States of America	Information Technology	Software & Services	38.2%	23.4%	12.7%	66.4%
Synopsys Inc	United States of America	Information Technology	Software & Services	44.9%	13.3%	34.0%	52.9%
Tesla Inc	United States of America	Consumer Discretionary	Automobiles & Components	52.8%	28.1%	1.4%	5.4%
Vertex Pharmaceuticals Inc	United States of America	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	32.7%	11.3%	1.5%	73.1%
Galapagos NV	Belgium	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	43.1%	20.6%	2.7%	2.1%
Proximus NV	Belgium	Telecommunication Services	Telecommunication Services	9.6%	15.6%	33.3%	51.4%
Telenet Group Holding NV	Belgium	Consumer Discretionary	Media	37.9%	15.5%	6.5%	90.1%
B&M European Value Retail SA	Luxembourg	Consumer Discretionary	Retailing	17.1%	18.3%	30.3%	24.5%
Croda International PLC	United Kingdom	Materials	Materials	34.8%	14.5%	14.4%	21.7%

The FCO Cockpit – Global Bubble Status June 1st, 2017

Quadrant 2 stocks: strong positive bubble signals with weak fundamentals (cont'd)

Company Name	Country of Headquarters	GICS Sector Name	GICS Industry Group Name	Yearly Return	Bubble Score	Value Score	Growth Score
Beiersdorf AG	Germany	Consumer Staples	Household & Personal Products	17.0%	16.5%	9.0%	43.1%
Hugo Boss AG	Germany	Consumer Discretionary	Consumer Durables & Apparel	21.4%	10.3%	29.8%	84.9%
Fuchs Petrolub SE	Germany	Materials	Materials	35.8%	36.8%	14.6%	36.9%
HOCHTIEF AG	Germany	Industrials	Capital Goods	44.0%	56.4%	23.4%	83.5%
Infineon Technologies AG	Germany	Information Technology	Semiconductors & Semiconductor Equipment	46.1%	27.1%	28.9%	72.8%
Osram Licht AG	Germany	Industrials	Capital Goods	42.5%	29.1%	36.7%	4.3%
SAP SE	Germany	Information Technology	Software & Services	30.8%	13.8%	21.6%	51.1%
STADA Arzneimittel AG	Germany	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	34.6%	20.3%	35.7%	50.7%
Axel Springer SE	Germany	Consumer Discretionary	Media	9.5%	11.0%	39.8%	51.3%
Symrise AG	Germany	Materials	Materials	13.4%	12.4%	12.1%	62.4%
United Internet AG	Germany	Information Technology	Software & Services	15.5%	12.9%	16.3%	37.7%
Wirecard AG	Germany	Information Technology	Software & Services	48.5%	18.8%	24.1%	11.5%
Chr Hansen Holding A/S	Denmark	Materials	Materials	9.4%	20.9%	0.2%	32.0%
DSV A/S	Denmark	Industrials	Transportation	32.2%	33.4%	14.1%	81.8%
GN Store Nord A/S	Denmark	Health Care	Health Care Equipment & Services	47.9%	26.5%	15.8%	76.2%
Vestas Wind Systems A/S	Denmark	Industrials	Capital Goods	22.9%	10.8%	0.9%	32.7%
William Demant Holding A/S	Denmark	Health Care	Health Care Equipment & Services	23.2%	27.2%	8.1%	79.0%
Aena SME SA	Spain	Industrials	Transportation	48.1%	25.0%	23.1%	27.6%
Amadeus IT Group SA	Spain	Information Technology	Software & Services	24.5%	26.4%	12.8%	48.4%
Cellnex Telecom SA	Spain	Telecommunication Services	Telecommunication Services	28.6%	18.9%	8.3%	80.6%
Grifols SA	Spain	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	23.7%	34.8%	18.9%	69.7%
Aéroports de Paris SA	France	Industrials	Transportation	27.1%	54.7%	38.6%	50.6%
Dassault Aviation SA	France	Industrials	Capital Goods	35.0%	48.9%	33.1%	63.5%
Christian Dior SE	France	Consumer Discretionary	Consumer Durables & Apparel	73.5%	37.3%	8.6%	80.5%
Dassault Systemes SE	France	Information Technology	Software & Services	14.8%	12.8%	10.7%	42.6%
Essilor International SA	France	Health Care	Health Care Equipment & Services	0.9%	15.5%	12.4%	46.7%
Iliad SA	France	Telecommunication Services	Telecommunication Services	17.2%	29.0%	11.0%	57.7%

The FCO Cockpit – Global Bubble Status June 1st, 2017

Quadrant 2 stocks: strong positive bubble signals with weak fundamentals (cont'd)

Company Name	Country of Headquarters	GICS Sector Name	GICS Industry Group Name	Yearly Return	Bubble Score	Value Score	Growth Score
Ipsen SA	France	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	98.0%	59.1%	6.3%	73.9%
Kering SA	France	Consumer Discretionary	Consumer Durables & Apparel	102.8%	45.2%	28.2%	85.6%
Legrand SA	France	Industrials	Capital Goods	23.5%	17.4%	25.6%	54.2%
LVMH Moët Hennessy Louis Vuitton SE	France	Consumer Discretionary	Consumer Durables & Apparel	57.7%	57.7%	15.3%	69.6%
L'Oreal SA	France	Consumer Staples	Household & Personal Products	12.8%	19.1%	11.9%	45.0%
Hermes International SCA	France	Consumer Discretionary	Consumer Durables & Apparel	35.4%	22.6%	4.2%	44.7%
Safran SA	France	Industrials	Capital Goods	25.1%	16.9%	29.9%	8.3%
Ubisoft Entertainment SA	France	Information Technology	Software & Services	49.4%	22.2%	15.6%	44.0%
G4S PLC	United Kingdom	Industrials	Commercial & Professional Services	73.9%	17.2%	34.9%	26.5%
Heineken NV	Netherlands	Consumer Staples	Food, Beverage & Tobacco	5.0%	10.5%	28.5%	48.8%
Imcd NV	Netherlands	Industrials	Capital Goods	31.4%	42.4%	29.5%	52.8%
Relx NV	Netherlands	Industrials	Commercial & Professional Services	18.5%	18.2%	3.5%	51.8%
Hays PLC	United Kingdom	Industrials	Commercial & Professional Services	22.6%	19.1%	30.5%	23.2%
Halma PLC	United Kingdom	Information Technology	Technology Hardware & Equipment	20.9%	17.4%	7.2%	22.4%
Davide Campari Milano SpA	Italy	Consumer Staples	Food, Beverage & Tobacco	43.4%	29.0%	23.8%	83.3%
Moncler SpA	Italy	Consumer Discretionary	Consumer Durables & Apparel	44.6%	40.6%	26.4%	64.7%
Ferrari NV	Italy	Consumer Discretionary	Automobiles & Components	102.1%	40.0%	4.0%	67.4%
Recordati Industria Chimica e Farmaceutica SpA	Italy	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	34.9%	16.6%	7.5%	72.7%
Wartsila Oyj Abp	Finland	Industrials	Capital Goods	41.9%	47.4%	22.8%	75.8%
Subsea 7 SA	United Kingdom	Energy	Energy	63.5%	22.8%	2.2%	8.0%
Rolls-Royce Holdings PLC	United Kingdom	Industrials	Capital Goods	42.2%	19.6%	29.7%	21.5%
Ams AG	Austria	Information Technology	Semiconductors & Semiconductor Equipment	131.6%	19.5%	3.6%	13.3%
Barry Callebaut AG	Switzerland	Consumer Staples	Food, Beverage & Tobacco	19.3%	19.5%	17.8%	81.6%
Dormakaba Holding AG	Switzerland	Industrials	Capital Goods	33.9%	18.6%	6.8%	6.8%
Ems Chemie Holding AG	Switzerland	Materials	Materials	38.1%	27.9%	6.2%	33.7%
Flughafen Zuerich AG	Switzerland	Industrials	Transportation	37.7%	26.1%	24.4%	40.1%
Kuehne und Nagel International AG	Switzerland	Industrials	Transportation	11.8%	19.3%	27.1%	41.0%

The FCO Cockpit – Global Bubble Status June 1st, 2017

Quadrant 2 stocks: strong positive bubble signals with weak fundamentals (cont'd)

Company Name	Country of Headquarters	GICS Sector Name	GICS Industry Group Name	Yearly Return	Bubble Score	Value Score	Growth Score
Logitech International SA	United States of America	Information Technology	Technology Hardware & Equipment	131.4%	26.3%	19.2%	49.6%
Schindler Holding AG	Switzerland	Industrials	Capital Goods	12.8%	23.7%	6.0%	53.9%
SGS SA	Switzerland	Industrials	Commercial & Professional Services	8.7%	14.4%	9.4%	40.0%
Sika AG	Switzerland	Materials	Materials	45.1%	12.7%	29.0%	63.7%
Sonova Holding AG	Switzerland	Health Care	Health Care Equipment & Services	20.9%	29.2%	17.1%	70.7%
Sunrise Communications Group AG	Switzerland	Telecommunication Services	Telecommunication Services	34.8%	16.7%	37.0%	9.2%
Straumann Holding AG	Switzerland	Health Care	Health Care Equipment & Services	41.1%	37.0%	4.1%	67.3%
Temenos Group AG	Switzerland	Information Technology	Software & Services	63.2%	41.9%	3.9%	55.4%
Spirax-Sarco Engineering PLC	United Kingdom	Industrials	Capital Goods	64.5%	17.2%	10.0%	24.6%
SSP Group PLC	United Kingdom	Consumer Discretionary	Consumer Services	53.7%	37.1%	13.7%	23.6%
Agilent Technologies Inc	United States of America	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	31.5%	26.4%	22.3%	58.8%
Ametek Inc	United States of America	Industrials	Capital Goods	27.6%	23.7%	22.4%	46.0%
Amphenol Corp	United States of America	Information Technology	Technology Hardware & Equipment	27.0%	15.1%	14.7%	49.8%
Baxter International Inc	United States of America	Health Care	Health Care Equipment & Services	37.4%	29.5%	26.1%	66.2%
C R Bard Inc	United States of America	Health Care	Health Care Equipment & Services	40.4%	20.5%	10.3%	62.8%
Chipotle Mexican Grill Inc	United States of America	Consumer Discretionary	Consumer Services	8.0%	11.9%	2.3%	90.8%
Coach Inc	United States of America	Consumer Discretionary	Consumer Durables & Apparel	17.2%	12.8%	32.9%	54.5%
Rockwell Collins Inc	United States of America	Industrials	Capital Goods	23.4%	21.6%	24.6%	65.5%
Darden Restaurants Inc	United States of America	Consumer Discretionary	Consumer Services	31.1%	26.4%	19.7%	64.3%
Estee Lauder Companies Inc	United States of America	Consumer Staples	Household & Personal Products	2.6%	15.1%	8.2%	40.6%
FMC Corp	United States of America	Materials	Materials	58.7%	28.7%	12.0%	7.6%
Home Depot Inc	United States of America	Consumer Discretionary	Retailing	16.2%	25.0%	21.0%	65.3%
Honeywell International Inc	United States of America	Industrials	Capital Goods	17.5%	17.7%	35.4%	54.3%
Illinois Tool Works Inc	United States of America	Industrials	Capital Goods	33.2%	10.6%	14.9%	64.2%
Coca-Cola Co	United States of America	Consumer Staples	Food, Beverage & Tobacco	2.0%	11.9%	14.2%	14.3%
Mastercard Inc	United States of America	Information Technology	Software & Services	28.1%	37.7%	20.9%	59.3%
McDonald's Corp	United States of America	Consumer Discretionary	Consumer Services	23.6%	35.5%	7.6%	60.4%

The FCO Cockpit – Global Bubble Status June 1st, 2017

Quadrant 2 stocks: strong positive bubble signals with weak fundamentals (cont'd)

Company Name	Country of Headquarters	GICS Sector Name	GICS Industry Group Name	Yearly Return	Bubble Score	Value Score	Growth Score
3M Co	United States of America	Industrials	Capital Goods	21.5%	14.6%	16.0%	56.1%
Mettler-Toledo International Inc	United States of America	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	55.3%	43.4%	5.5%	57.5%
PerkinElmer Inc	United States of America	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	15.2%	21.0%	35.9%	56.7%
Red Hat Inc	United States of America	Information Technology	Software & Services	15.6%	11.7%	5.0%	53.9%
Roper Technologies Inc	United States of America	Industrials	Capital Goods	32.8%	27.0%	27.2%	86.9%
Raytheon Co	United States of America	Industrials	Capital Goods	26.5%	15.6%	29.3%	29.3%
Sherwin-Williams Co	United States of America	Materials	Materials	14.0%	11.8%	35.3%	63.6%
Constellation Brands Inc	United States of America	Consumer Staples	Food, Beverage & Tobacco	19.3%	14.0%	19.6%	73.5%
Stryker Corp	United States of America	Health Care	Health Care Equipment & Services	28.6%	18.1%	23.6%	60.3%
Tiffany & Co	United States of America	Consumer Discretionary	Retailing	40.3%	11.2%	32.6%	42.5%
Total System Services Inc	United States of America	Information Technology	Software & Services	10.9%	10.9%	37.2%	78.3%
Visa Inc	United States of America	Information Technology	Software & Services	20.6%	13.5%	7.7%	68.0%
Waters Corp	United States of America	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	30.6%	19.4%	25.2%	55.8%
Wyndham Worldwide Corp	United States of America	Consumer Discretionary	Consumer Services	49.9%	33.0%	32.0%	58.1%
Zoetis Inc	United States of America	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	31.3%	11.8%	6.7%	72.2%
Assa Abloy AB	Sweden	Industrials	Capital Goods	12.6%	10.5%	20.2%	63.3%
Elekta AB (publ)	Sweden	Health Care	Health Care Equipment & Services	32.4%	15.3%	30.2%	92.8%
Husqvarna AB	Sweden	Consumer Discretionary	Consumer Durables & Apparel	36.2%	26.1%	37.1%	87.4%
Saab AB	Sweden	Industrials	Capital Goods	63.1%	48.2%	28.4%	88.6%
Sandvik AB	Sweden	Industrials	Capital Goods	67.0%	22.6%	32.4%	86.0%
Swedish Orphan Biovitrum AB (publ)	Sweden	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	22.2%	15.9%	4.8%	80.4%
Atlas Copco AB	Sweden	Industrials	Capital Goods	49.2%	51.9%	16.9%	89.8%
Tele2 AB	Sweden	Telecommunication Services	Telecommunication Services	26.8%	32.6%	35.0%	82.7%
Volvo AB	Sweden	Industrials	Capital Goods	53.0%	52.2%	39.6%	90.4%

The FCO Cockpit – Global Bubble Status June 1st, 2017

Quadrant 2 stocks: strong positive bubble signals with weak fundamentals, example Priceline Group Inc.



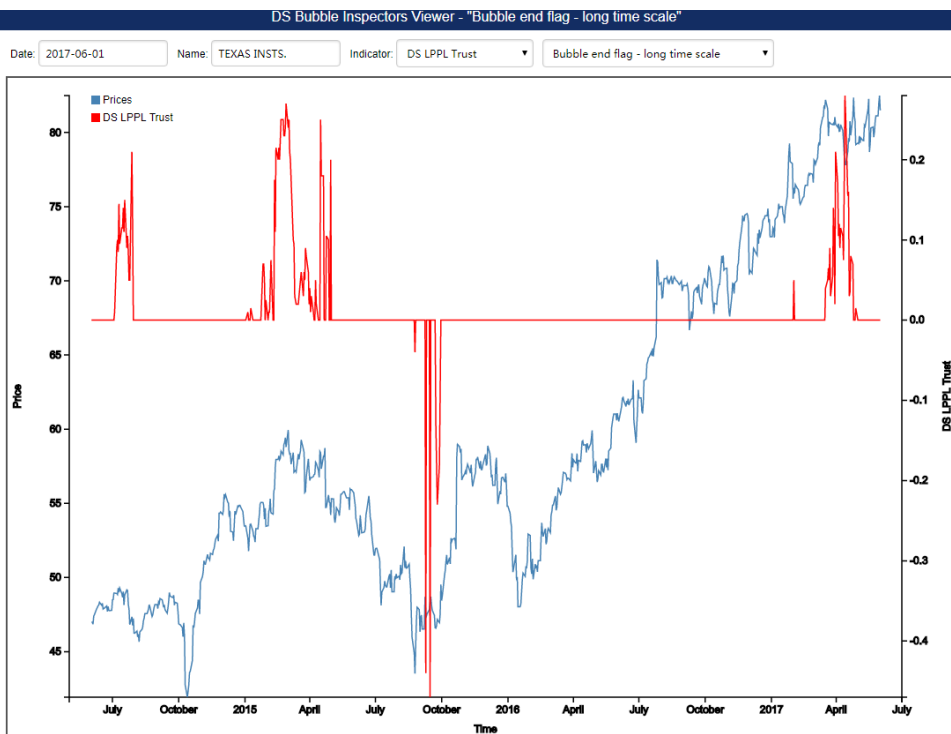
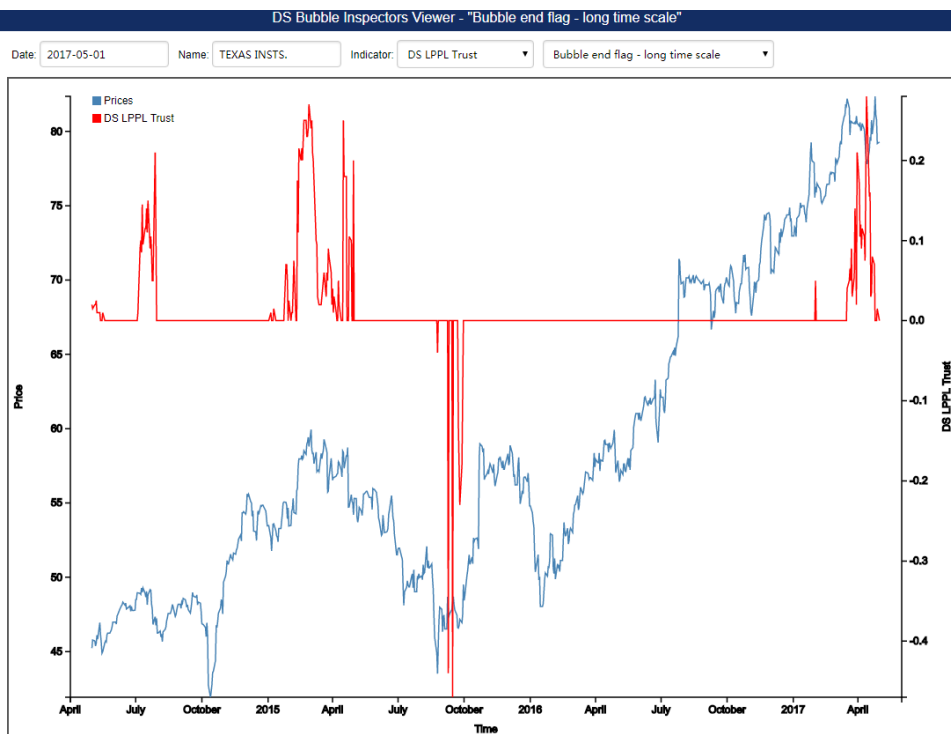
The left graph is a standard output from the Financial Crisis Observatory. It shows the historical price evolution of the stock in blue (left hand scale) and the calculated bubble warning index DS LPPL Trust in red (right hand scale). We can see a clearly spiking warning. The right graph shows the outperformance of the stock over the last year (orange) with respect to the S&P500 benchmark (purple), it is almost 30% up. The strong positive bubble signals and weak fundamentals indicate a high probability of correction in the future.

Last month example: strong positive bubble signals with weak fundamentals, Texas Instruments Inc.

Note that the stock price went into a plateau, which is in synchronize with our DS LPPL trust indicator, but in contradiction with our weak fundamentals. This suggests continuing to short or get out of a long position on this stock.

Last month signal (1st May. 2017)

This month signal (1st Jun. 2017)



The FCO Cockpit – Global Bubble Status June 1st, 2017

Quadrant 3 stocks: strong negative bubble signals with weak fundamentals

Company Name	Country of Headquarters	GICS Sector Name	GICS Industry Group Name	Yearly Return	Bubble Score	Value Score	Growth Score
Mediaset Espana Comunicacion SA	Spain	Consumer Discretionary	Media	-0.3%	-10.9%	39.0%	83.0%
Anadarko Petroleum Corp	United States of America	Energy	Energy	-2.6%	-15.5%	28.8%	97.7%
Acuity Brands Inc	United States of America	Industrials	Capital Goods	-37.1%	-25.2%	31.5%	34.4%
General Mills Inc	United States of America	Consumer Staples	Food, Beverage & Tobacco	-9.6%	-12.5%	27.8%	43.0%
L Brands Inc	United States of America	Consumer Discretionary	Retailing	-24.7%	-10.3%	35.1%	4.9%
PPG Industries Inc	United States of America	Materials	Materials	-1.2%	-11.3%	37.3%	59.2%
Schlumberger NV	United States of America	Energy	Energy	-8.8%	-16.8%	36.6%	65.6%

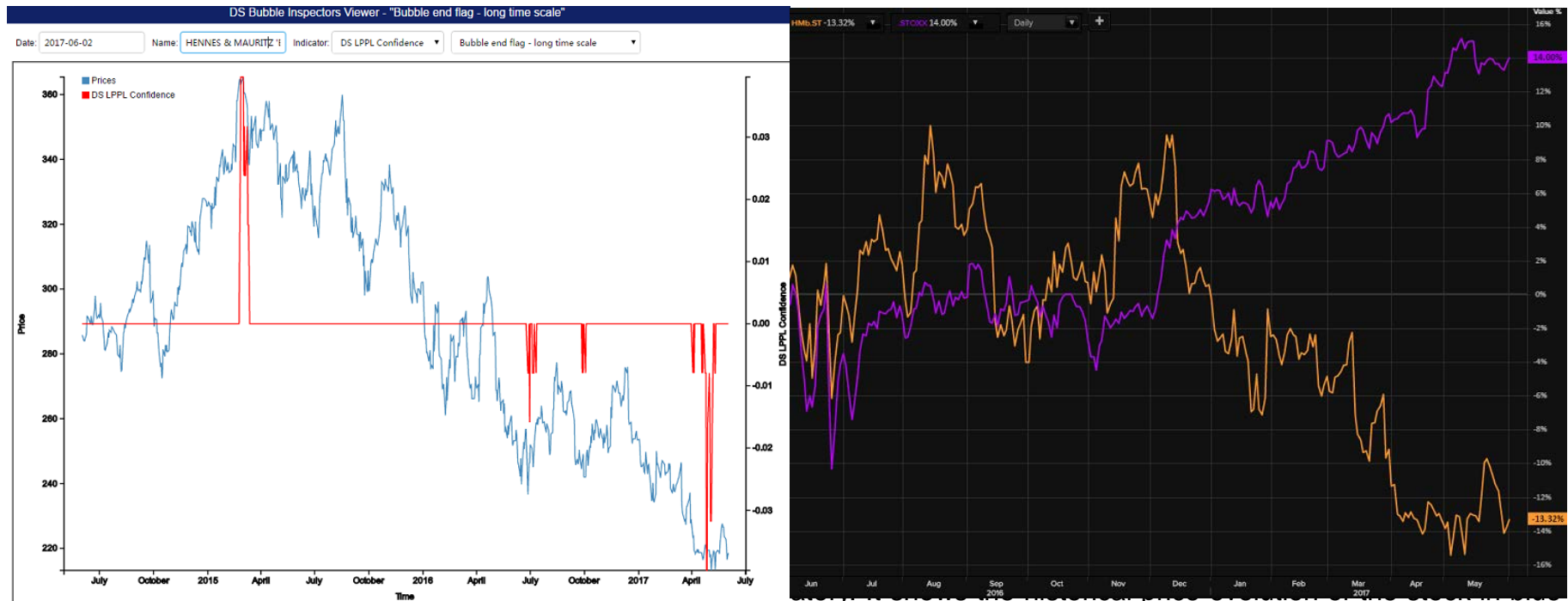
The FCO Cockpit – Global Bubble Status June 1st, 2017

Quadrant 4 stocks: strong negative bubble signals with strong fundamentals

Company Name	Country of Headquarters	GICS Sector Name	GICS Industry Group Name	Yearly Return	Bubble Score	Value Score	Growth Score
Express Scripts Holding Co	United States of America	Health Care	Health Care Equipment & Services	-20.9%	-13.9%	88.8%	83.2%
Berkeley Group Holdings PLC	United Kingdom	Consumer Discretionary	Consumer Durables & Apparel	-0.6%	-17.1%	97.3%	32.4%
BT Group PLC	United Kingdom	Telecommunication Services	Telecommunication Services	-30.1%	-15.0%	73.2%	18.8%
Howden Joinery Group PLC	United Kingdom	Industrials	Capital Goods	-10.7%	-17.8%	88.6%	18.4%
Amer Sports Oyj	Finland	Consumer Discretionary	Consumer Durables & Apparel	-22.9%	-15.0%	70.2%	34.3%
Travis Perkins PLC	United Kingdom	Industrials	Capital Goods	-15.0%	-10.2%	87.7%	18.9%
Perrigo Company PLC	Ireland; Republic of	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	-24.0%	-10.8%	75.5%	4.5%
Transocean Ltd	Switzerland	Energy	Energy	-7.2%	-12.8%	98.8%	0.1%
Range Resources Corp	United States of America	Energy	Energy	-45.9%	-31.2%	85.1%	95.8%
H & M Hennes & Mauritz AB	Sweden	Consumer Discretionary	Retailing	-15.4%	-19.2%	66.7%	50.8%

The FCO Cockpit – Global Bubble Status June 1st, 2017

Quadrant 4 stocks: strong negative bubble signals with strong fundamentals, example H & M Hennes & Mauritz AB.



(left hand scale) and the calculated bubble warning index DS LPPL Trust in red (right hand scale). We can see a clearly spiking warning of the negative bubble. The right graph shows the performance of the stock over the last year (orange) with respect to the S&P 500 benchmark (purple), it is -27%. We expect a future rebound, which is due to our diagnostic of a negative bubble signal with strong fundamentals, calling for a contrarian buyer position.

The FCO Cockpit – Global Bubble Status June 1st, 2017

Sectors

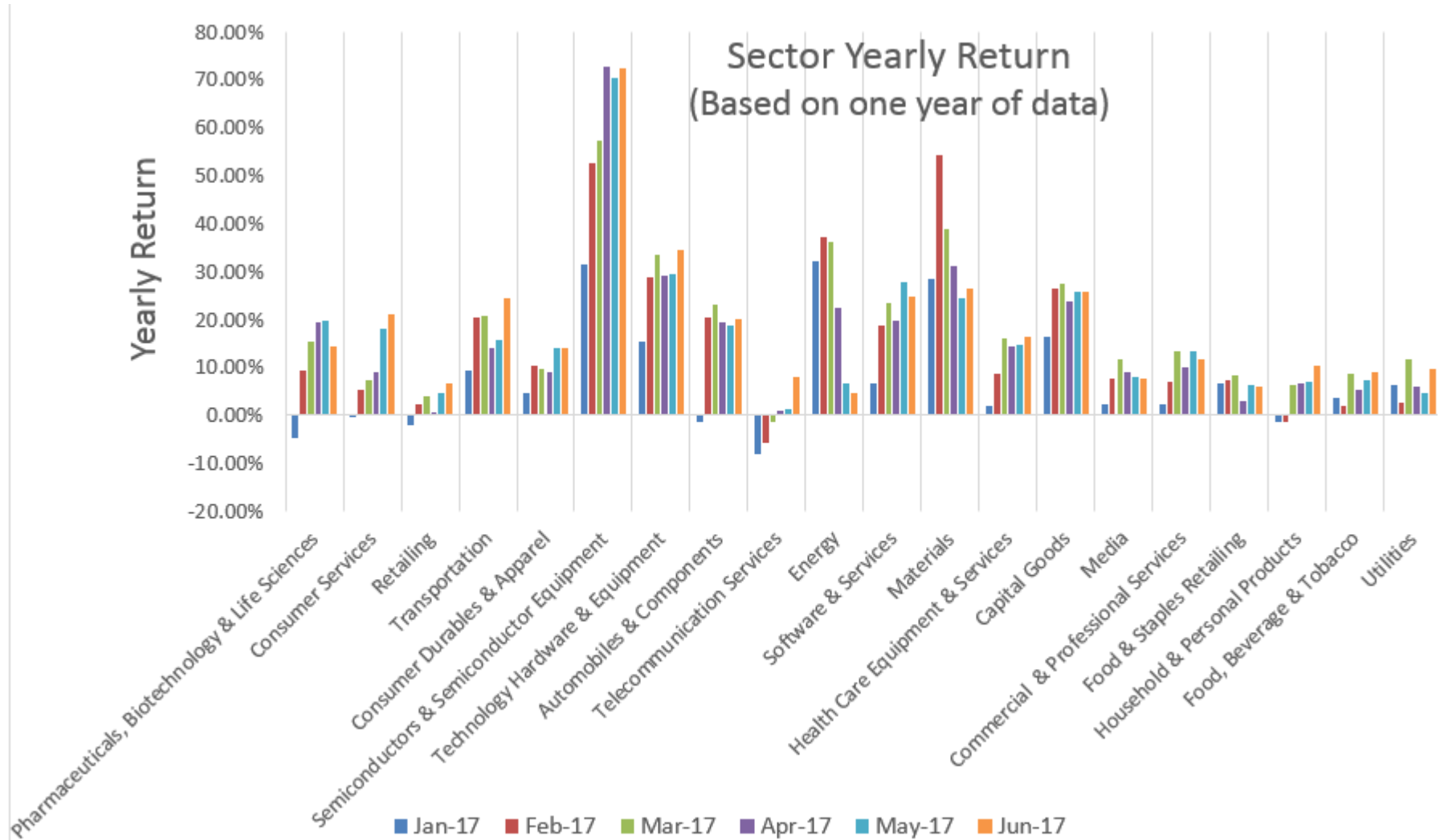
The FCO Cockpit – Global Bubble Status June 1st, 2017

GICS Industry Group Name	Yearly Return		Bubble Score		Value Score		Growth Score	
	June 1st	May 1st	June 1st	May 1st	June 1st	May 1st	June 1st	May 1st
Pharmaceuticals, Biotechnology & Life Sciences	14.2%	19.8%	7.2%	4.6%	43.8%	40.0%	50.7%	50.8%
Consumer Services	21.2%	17.9%	10.2%	4.1%	43.5%	44.4%	50.4%	50.7%
Retailing	6.8%	4.8%	4.2%	1.5%	49.2%	43.0%	42.2%	43.2%
Transportation	24.3%	15.6%	8.1%	6.5%	54.7%	56.3%	38.3%	40.3%
Consumer Durables & Apparel	14.1%	13.9%	10.9%	6.6%	54.5%	53.0%	56.8%	53.6%
Semiconductors & Semiconductor Equipment	72.5%	70.3%	13.0%	17.6%	48.0%	45.0%	75.4%	74.6%
Technology Hardware & Equipment	34.4%	29.3%	5.2%	2.5%	58.6%	54.0%	44.6%	45.6%
Automobiles & Components	20.1%	18.8%	8.0%	6.7%	70.8%	68.0%	60.4%	59.1%
Telecommunication Services	8.1%	1.4%	5.8%	1.5%	56.0%	62.0%	38.5%	38.4%
Energy	4.6%	6.7%	-1.2%	0.4%	58.4%	70.0%	68.9%	66.4%
Software & Services	24.8%	27.9%	10.9%	6.3%	40.2%	35.0%	47.4%	49.1%
Materials	26.3%	24.5%	4.5%	5.0%	55.5%	55.3%	54.9%	56.3%
Health Care Equipment & Services	16.5%	14.7%	10.0%	4.9%	39.5%	41.0%	52.9%	52.6%
Capital Goods	25.7%	25.9%	10.3%	6.9%	44.7%	44.0%	50.1%	48.5%
Media	7.6%	8.1%	1.6%	3.0%	55.1%	53.7%	48.0%	47.7%
Commercial & Professional Services	11.6%	13.4%	4.4%	4.9%	41.7%	40.5%	41.3%	42.5%
Food & Staples Retailing	6.1%	6.4%	2.5%	1.0%	57.8%	57.5%	43.4%	42.7%
Household & Personal Products	10.5%	7.1%	5.4%	2.7%	20.2%	21.6%	44.3%	45.2%
Food, Beverage & Tobacco	9.0%	7.3%	4.0%	1.9%	37.0%	38.1%	47.7%	49.4%
Utilities	9.7%	4.6%	4.0%	3.9%	69.8%	73.0%	38.3%	39.3%

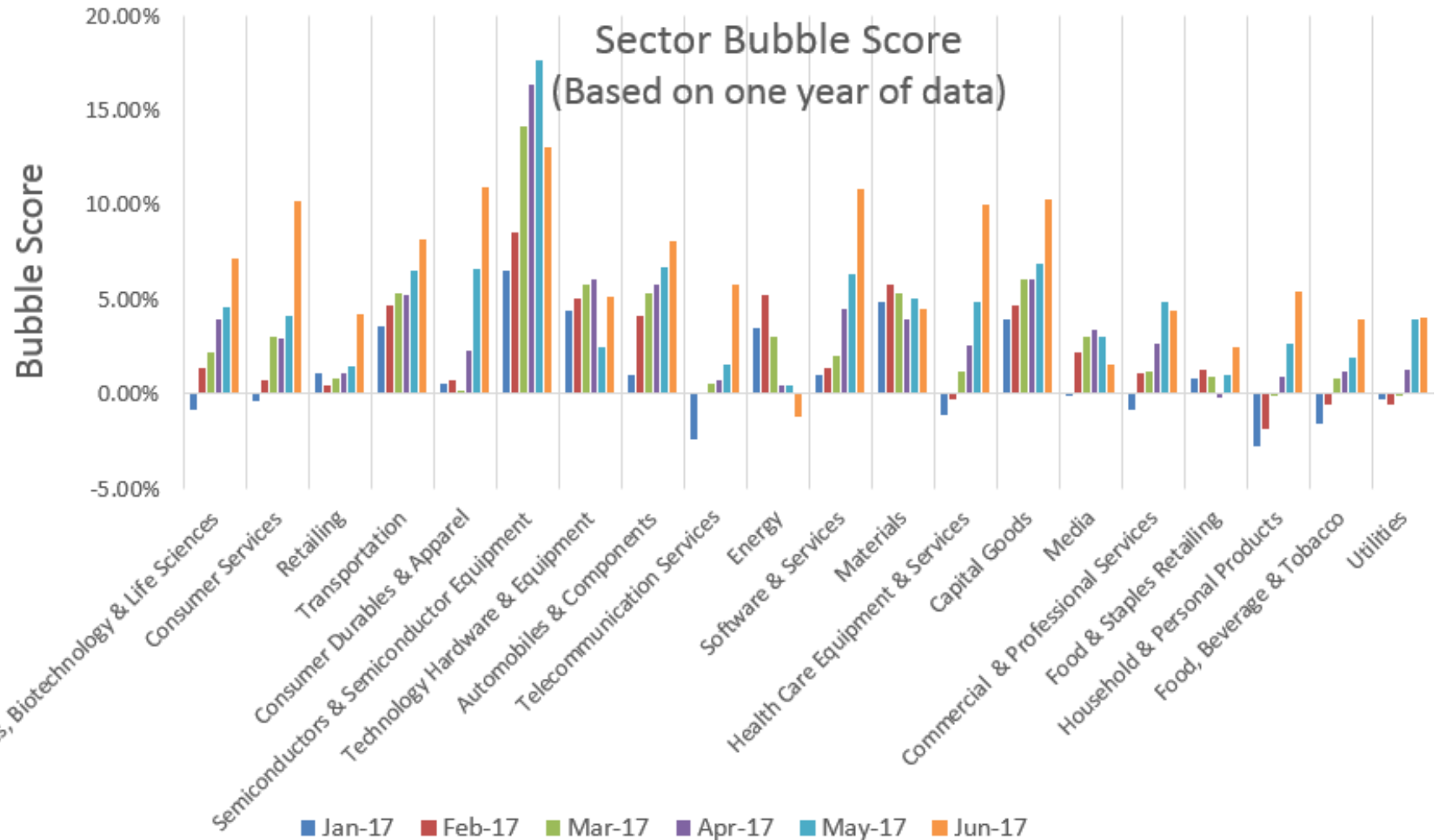
By aggregating the calculations that were done at the single stock level in the previous section, we can see the bubble, value and growth score at the sector level. The results in the previous report are also presented here for comparison.

- The sector *Semiconductors & Semiconductor Equipment* we reported in last five months has a smaller bubble score, which demonstrates that the strong momentums in this industry is declining.
- Moreover, we find that 15 out of 20 sectors have again a even stronger bubble score this month, and 19 sectors are performing positive bubble signals, indicating that an overall rebound is continuing in this month.

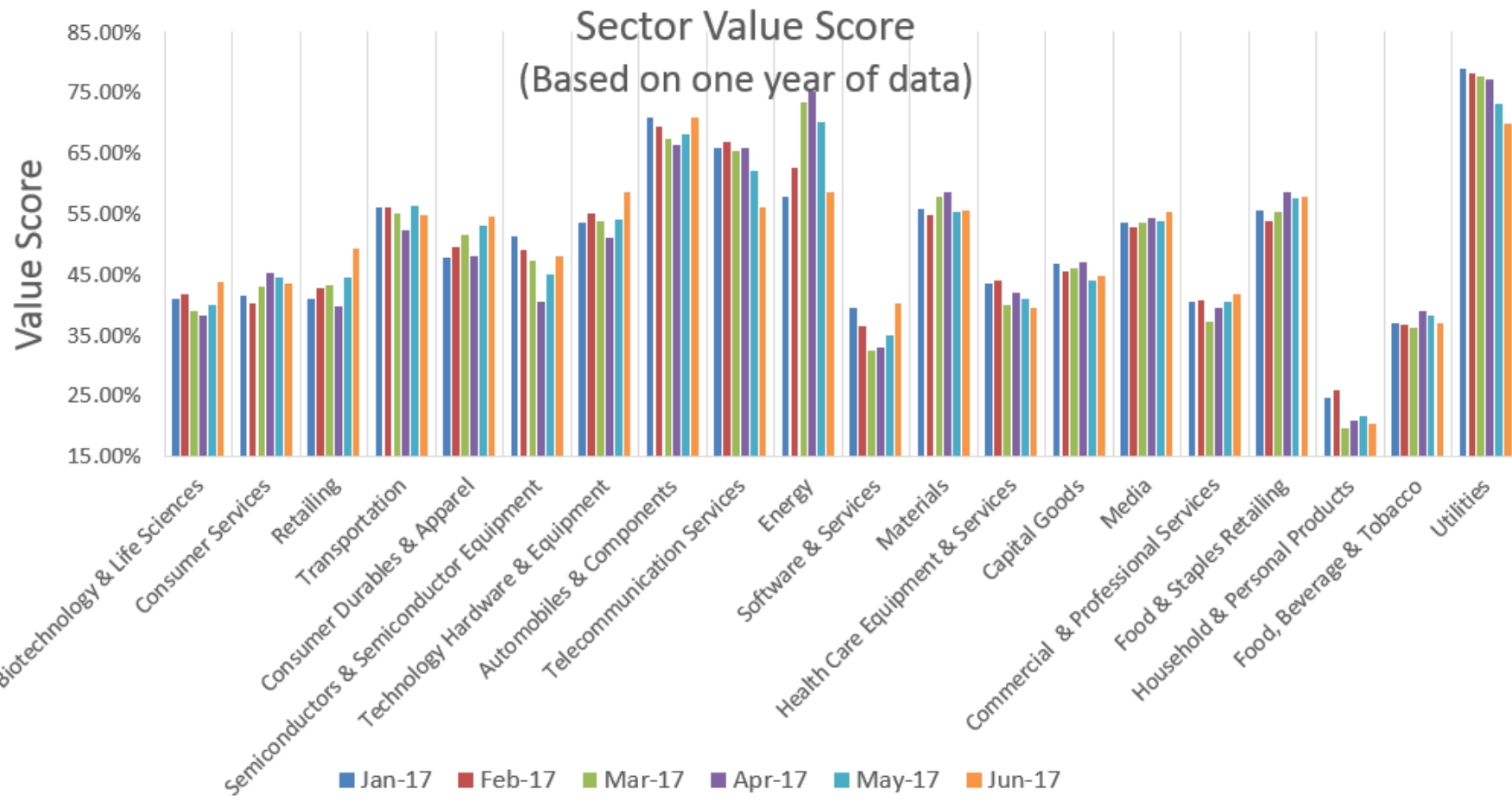
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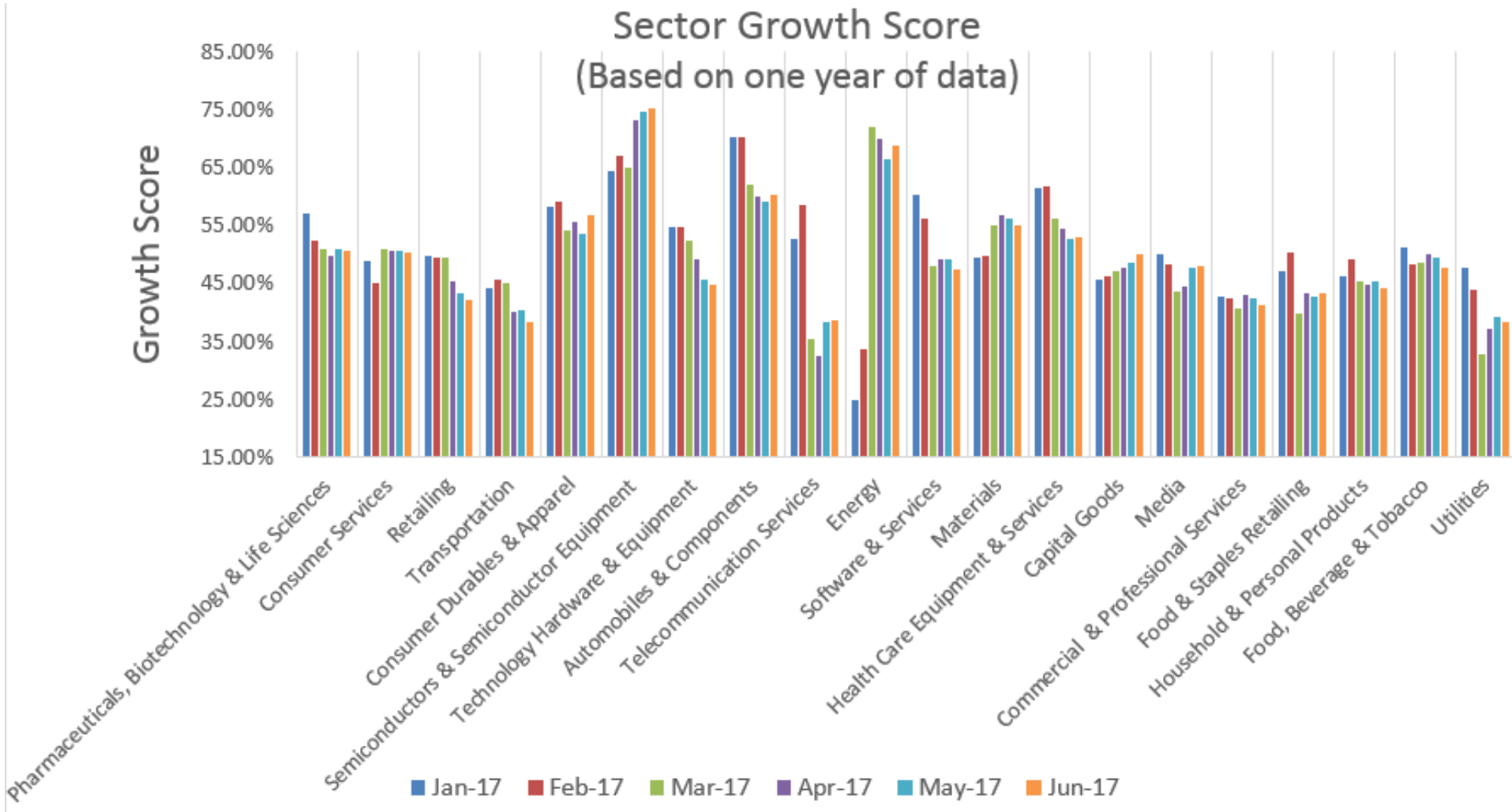
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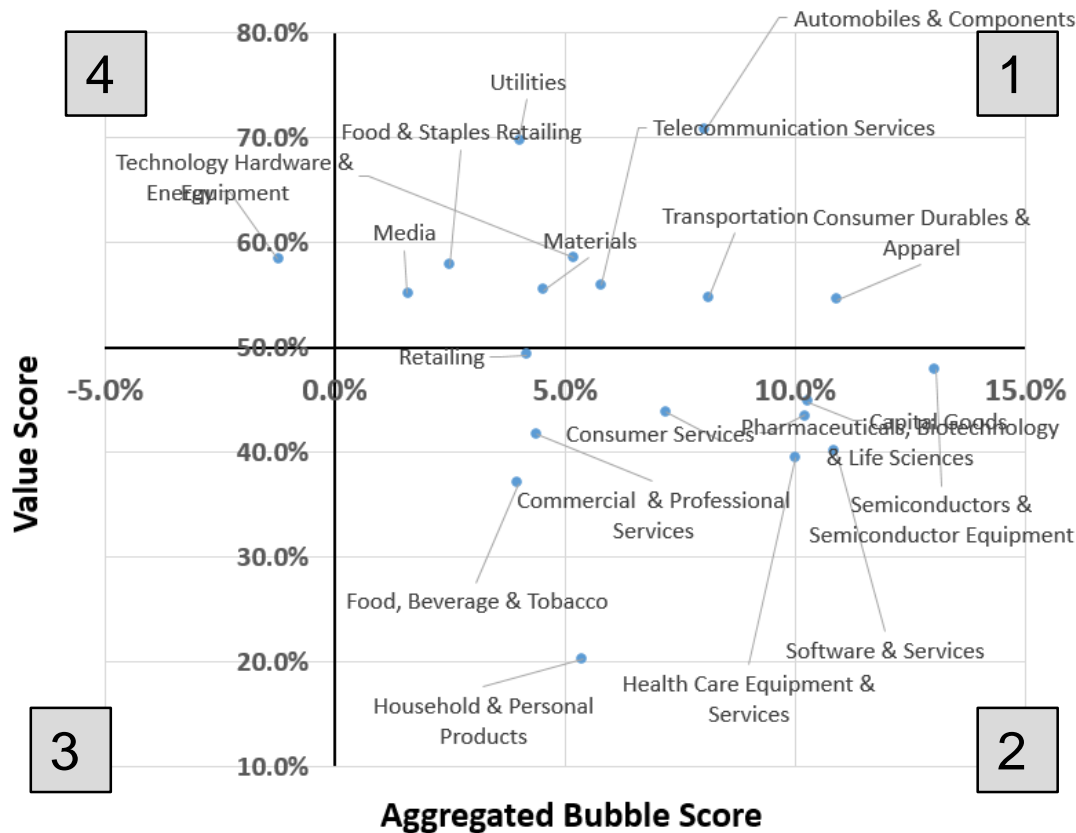
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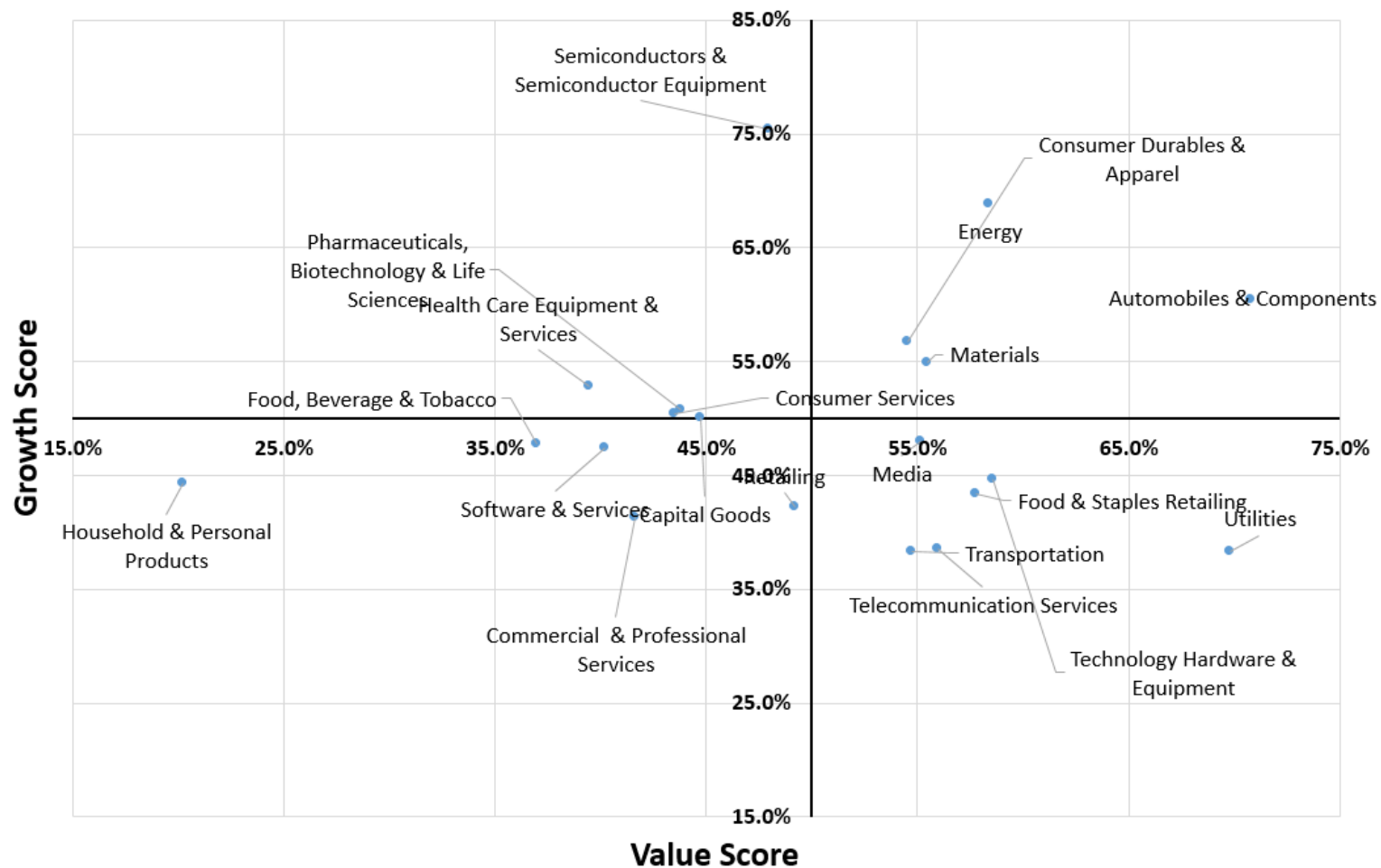


By plotting the value score versus the aggregated bubble score, we can also divide the sectors into four quadrants*:

1. [Quadrant 1](#): Sectors with an average positive bubble score and a strong value score;
2. [Quadrant 2](#): Sectors with an average positive bubble score and a weak value score;
3. [Quadrant 3](#): Sectors with an average negative bubble score and a weak value score;
4. [Quadrant 4](#): Sectors with an average negative bubble score and a strong value score.

*For sectors, a strong value score is identified if value score is larger than 50%, and a weak value score is identified if else.

The FCO Cockpit – Global Bubble Status June 1st, 2017



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Portfolio Construction and Performance

Here we illustrate the methodology of the portfolio construction process based on the results of our previous analyses.

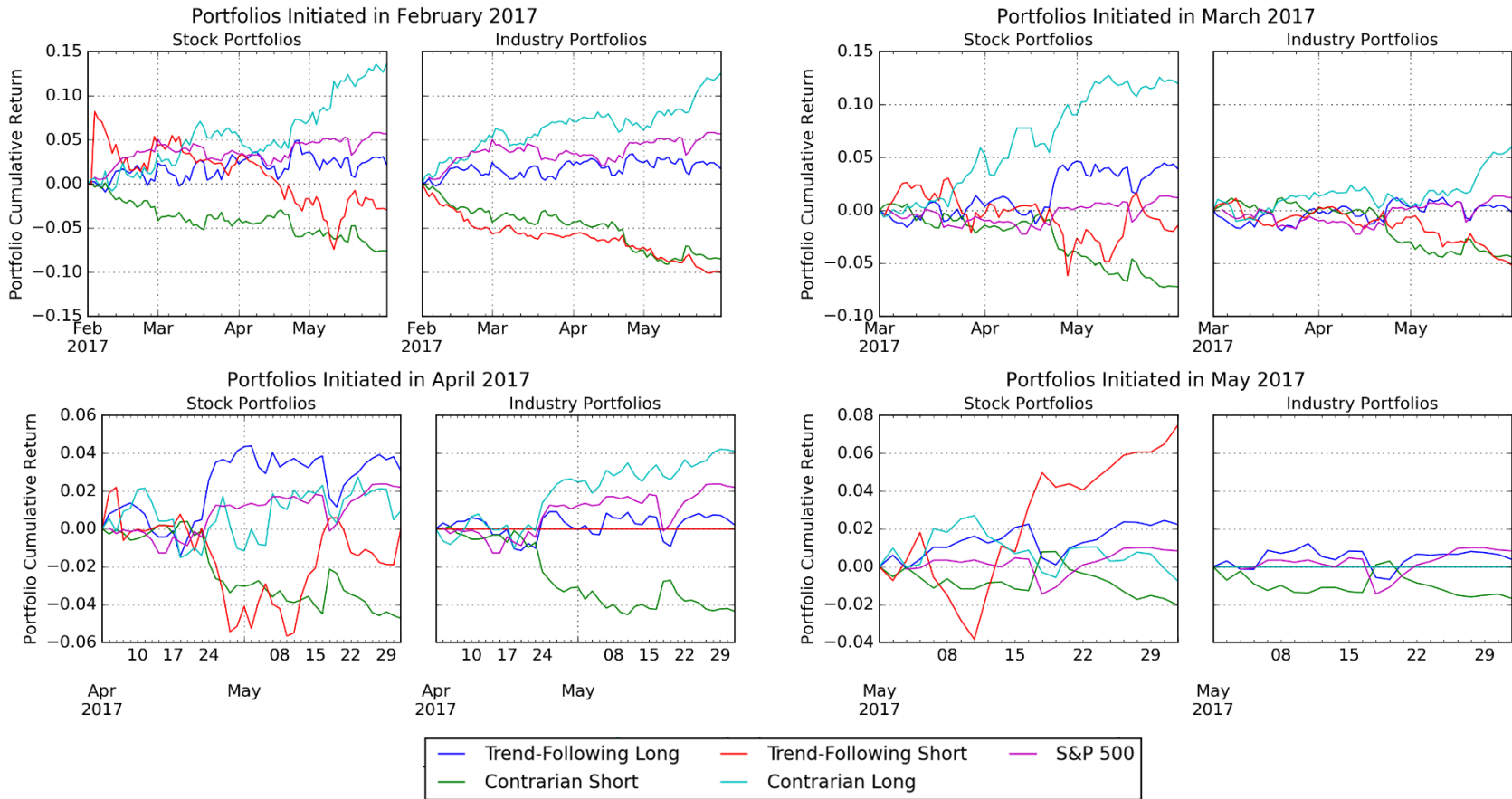
For individual stocks that we identified in the 4 quadrants, we constructed 4 portfolios based on the 4 quadrants defined in the last report. Each portfolio consists of all the stocks listed in the corresponding quadrant.

- (1) Trend-Following Long Stock Portfolio (TFLSP) is made of the stocks that have a **strong** bubble signal as well as a **strong** value score. For instance, TFLSP June consists of all the stocks listed in quadrant 1, identified in slide 25 of June FCO Report.
- (2) Trend-Following Short Stock Portfolio (TFSSP) is made of the stocks that have a **strong** bubble signal as well as a **weak** value score.
- (3) Contrarian Long Stock Portfolio (CLSP) is made of the stocks that have a **weak** bubble signal as well as a **strong** value score.
- (4) and Contrarian Short Stock Portfolio (CSSP) is made of the stocks that have a **weak** bubble signal as well as a **weak** value score.

At the same time, we also classified 20 industries into 4 quadrants. We also constructed 4 type of industry portfolios based on the 4 industry quadrants. Each portfolio consists of all the stocks in the industries listed in the corresponding quadrant. Following the same definitions as above, we have Trend-Following Long Industry Portfolio (TFLIP), Trend-Following Short Industry Portfolio (TFSIP), Contrarian Long Industry Portfolio (CLIP), and Contrarian Short Industry Portfolio (CSIP). For example, Trend-Following Long Industry Portfolio June consists of all the stocks in the industries listed in quadrant 1, identified in slide 39 of the June 2016 FCO Report.

In each month, we initiated 8 new portfolios based on the updated results. The performance of every 8 portfolios we initiated in each month since April 2016 are presented in the next slide. All of the stocks in our portfolios have the same weights and we don't consider transaction cost in the portfolio performance.

The FCO Cockpit – Global Bubble Status June 1st, 2017



This month, we find that Long portfolios still play out and outperform the market in most portfolios initiated in February, March, April and May 2017. This is mainly due to the booming market in recent months. Contrarian Portfolios are more delicate to use due to their sensitivity to timing the expected reversal and exhibit very volatile performances, indicating that most of bubbles in the market are still dominating and that fundamentals have not yet played out. We expect trend-following positions to perform in the months following the position set-up and then contrarian positions to over-perform over longer time scales as the predicted corrections play out.

The FCO Cockpit – Global Bubble Status June 1st, 2017

For information, see

<http://www.er.ethz.ch/financial-crisis-observatory.html>