The FCO Cockpit – Global Bubble Status Report

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July 1st, 2017

The FCO Cockpit –
Global Bubble Status July 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 850 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.
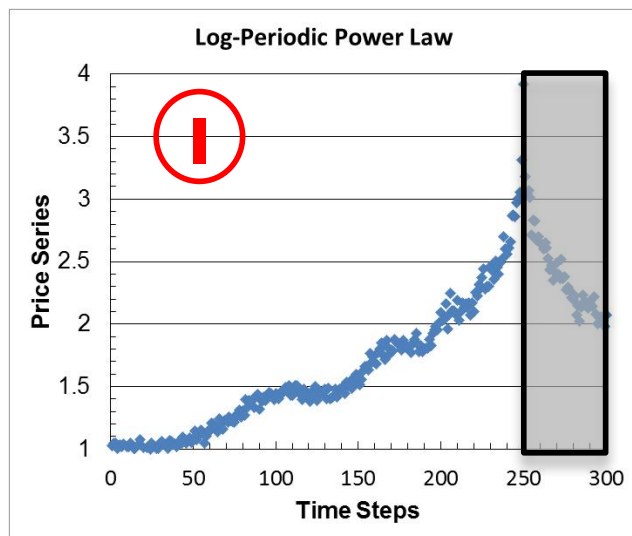
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How does it work?

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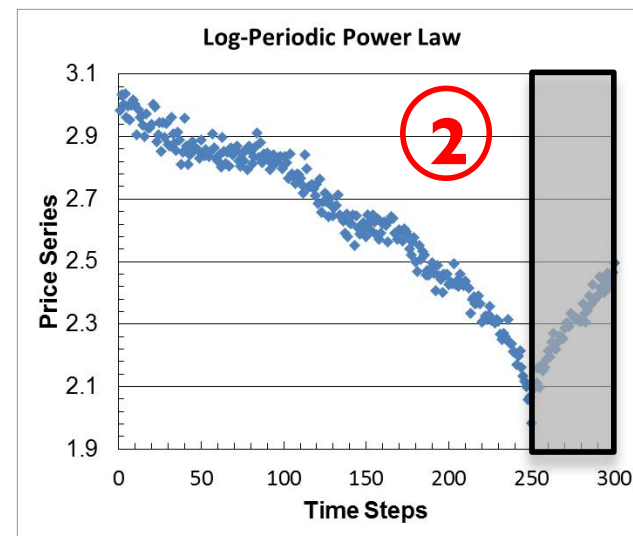
A **negative bubble** when
there is imitation in **selling**

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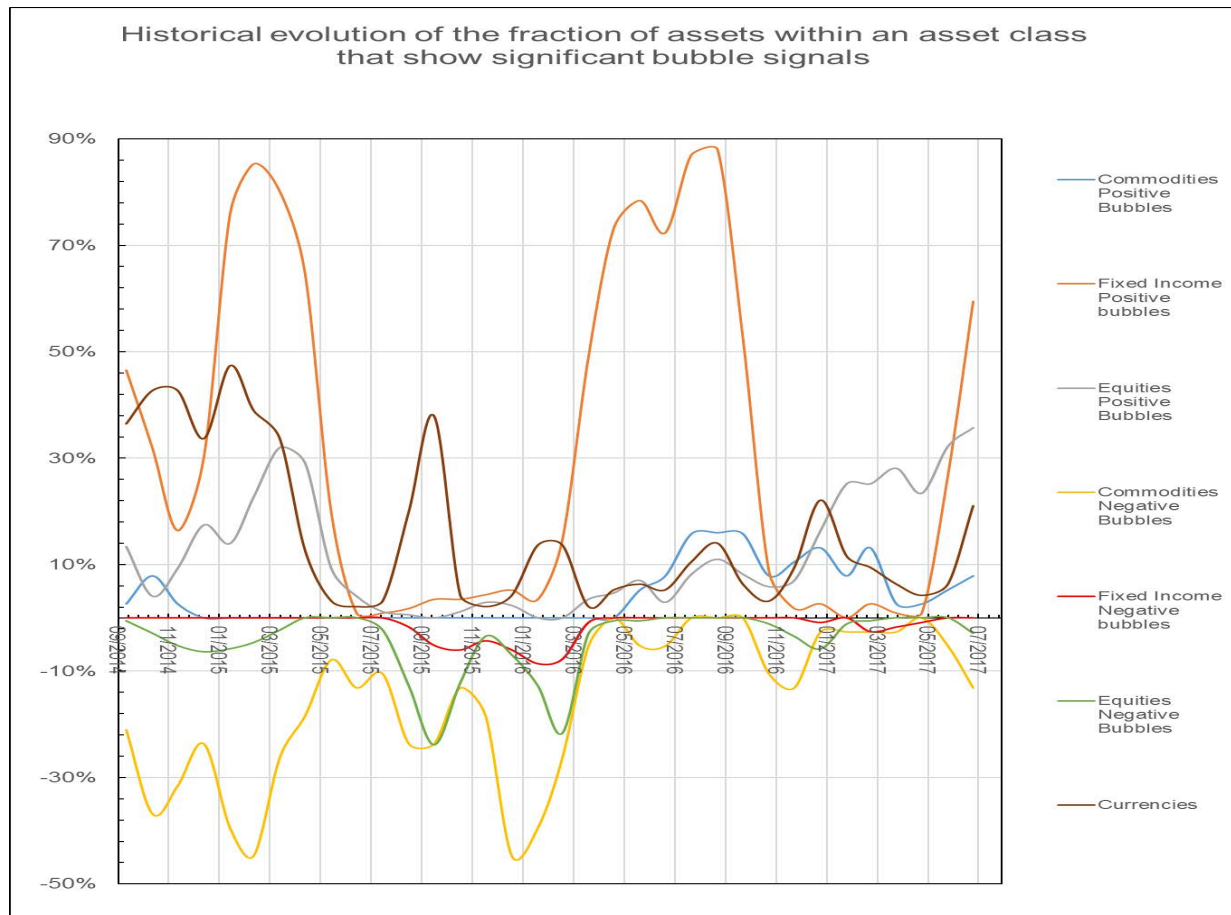## General Result

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

Legend:
- Commodities Positive Bubbles
- Fixed Income Positive bubbles
- Equities Positive Bubbles
- Commodities Negative Bubbles
- Fixed Income Negative bubbles
- Equities Negative Bubbles
- Currencies

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 big picture

One can observe the continuation of a trend in the growth of positive bubbles in the fixed income asset class for the second month.

The fraction of stocks diagnosed in a positive bubble state increased this month to exceed 36% compared with 32% last month.

Mixed bubble signals still occur only in few commodity indices.

We also observe renewed bubble activity in currency pairs.

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Other interesting highlights from this report

- A surge in bubble signals in currencies, specifically in European crosses, on the back of the improvement in the European macroeconomic and political atmosphere;

- A surge in bubble signals in the fixed income asset class for the second month ; specifically in the financial bond indices;

- Eight commodity indices are showing bubble signals, divided unequally between positive and negative bubble signals. It is interesting that all of these eight indices are agriculture indices;

- There is a slight increase in positive bubble signals in equities compared with last month. The most interesting result is found for the EUR STOXX and U.S. Nasdaq Composite indices that are showing signs of positive bubbles for the fifth consecutive month. Note that around 58% 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, the sector *Energy* has a significant negative bubble score, reflecting the recent drawdowns of energy prices. The strong value score in this sector calls for a contrarian buy position.

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.

Results per Asset Class

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Government bonds

Positive Bubbles	Yearly Return	DS LPPL Trust	DS LPPL Confidence
iBoxx GBP Sovereigns Index	7.3%	20.7%	14.6%
iBoxx Asia Malaysia Government Index	3.4%	19.8%	10.3%
iBoxx USD Sovereigns Index	3.2%	18.1%	18.4%
iBoxx USD Supranationals Index	0.4%	14.4%	11.3%
iBoxx Asia Thailand Government Index	0.2%	13.9%	14.3%
iBoxx USD Local governments Index	0.7%	12.1%	10.3%
iBoxx USD US Agencies Index	0.8%	9.3%	15.4%
Negative Bubbles			
None			

This month we see positive bubble signals in seven of the 34 government bond indices that were analyzed, that is 21% of the set. As shown in the table above, four are in the United States, two in Asia and the last one in the United Kingdom. In the case of the United Kingdom, this bubble seems to start its change of regime and this could be related to the recent political uncertainty after the recent general elections.

It is worth mentioning that the British Sovereign index, the United States Sovereign and Super nationals indices are showing positive bubble signals for the second consecutive month. For the British Sovereign index, a turning point is already visible.

Daily .IBBUS01FE
7/1/2016 - 7/18/2017 (GMT)

Line, .IBBUS01FE, Last Quote(Last)
6/29/2017, 296.90530, N/A, N/A

Source: Thomson Reuters

United States Sovereigns Index

Price USD
299
298
297
296
295
294
293
292
291
290
289
288
287
286
285
284
283
282
281
280
279
Auto

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 06 13 20 27 03 10 17 24 01 08 15 22 29 05 12 19 26 03 10 17
Jul 16   Aug 16   Sep 16   Oct 16   Nov 16   Dec 16   Jan 17   Feb 17   Mar 17   Apr 17   May 17   Jun 17   Jul 17

Daily .IBBGB0248   1/1/2017 - 7/8/2017 (GMT)

Line, .IBBGB0248, Last Quote(Last)
6/29/2017, 305.11260, N/A, N/A

Source: Thomson Reuters

United Kingdom Sovereigns Index

Price
GBP
308.5
308
307.5
307
306.5
306
305.5
305
304.5
304
303.5
303
302.5
302
301.5
301
300.5
300
299.5
299
298.5
298

Auto

02   09   16   23   30   06   13   20   27   06   13   20   27   03   10   17   24   01   08   15   22   29   05   12   19   26   03
January 2017   February 2017   March 2017   April 2017   May 2017   June 2017   Jul 17
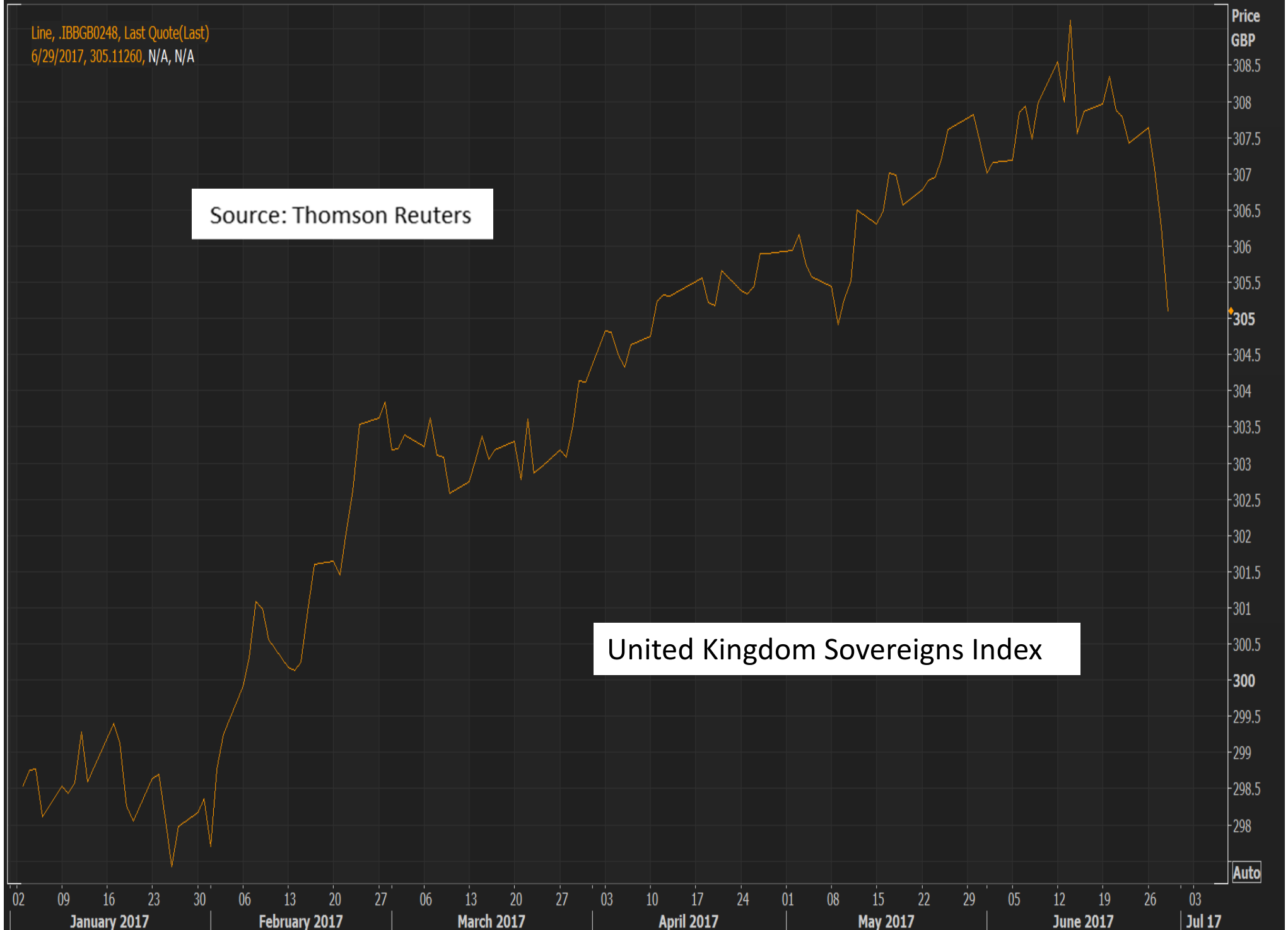
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Corporate bonds

Sector Indices	Yearly Return	DS LPPL Trust	DS LPPL Confidence
Positive Bubbles			
iBoxx EUR Financial Services Subordinated Index	5.9%	38.0%	39.6%
iBoxx USD Insurance Subordinated Index	7.6%	37.8%	35.5%
iBoxx USD Financials Subordinated Index	7.1%	33.6%	34.8%
iBoxx EUR Insurance Subordinated Index	12.2%	31.6%	43.0%
iBoxx USD Banks Subordinated Index	7.1%	31.5%	34.8%
Negative Bubbles			
None			

The number of corporate bond indices showing positive bubble signals surged again this month. Of the 82 government bond indices that were analyzed, 62 show positive bubble signals, that is 76% of the set.

The table above shows the indices with the five strongest signals, all are financial indices (29% of the corporate bonds showing positive bubble signals are in the financial sector).

It is worth mentioning that the European financial subordinated index is still showing positive bubble signals for the fourth consecutive month while having the strongest bubble signal. The figure on the next page shows the fast growing price trajectory that was seen in the index especially after the French legislative elections that support the stability in the European political climate.
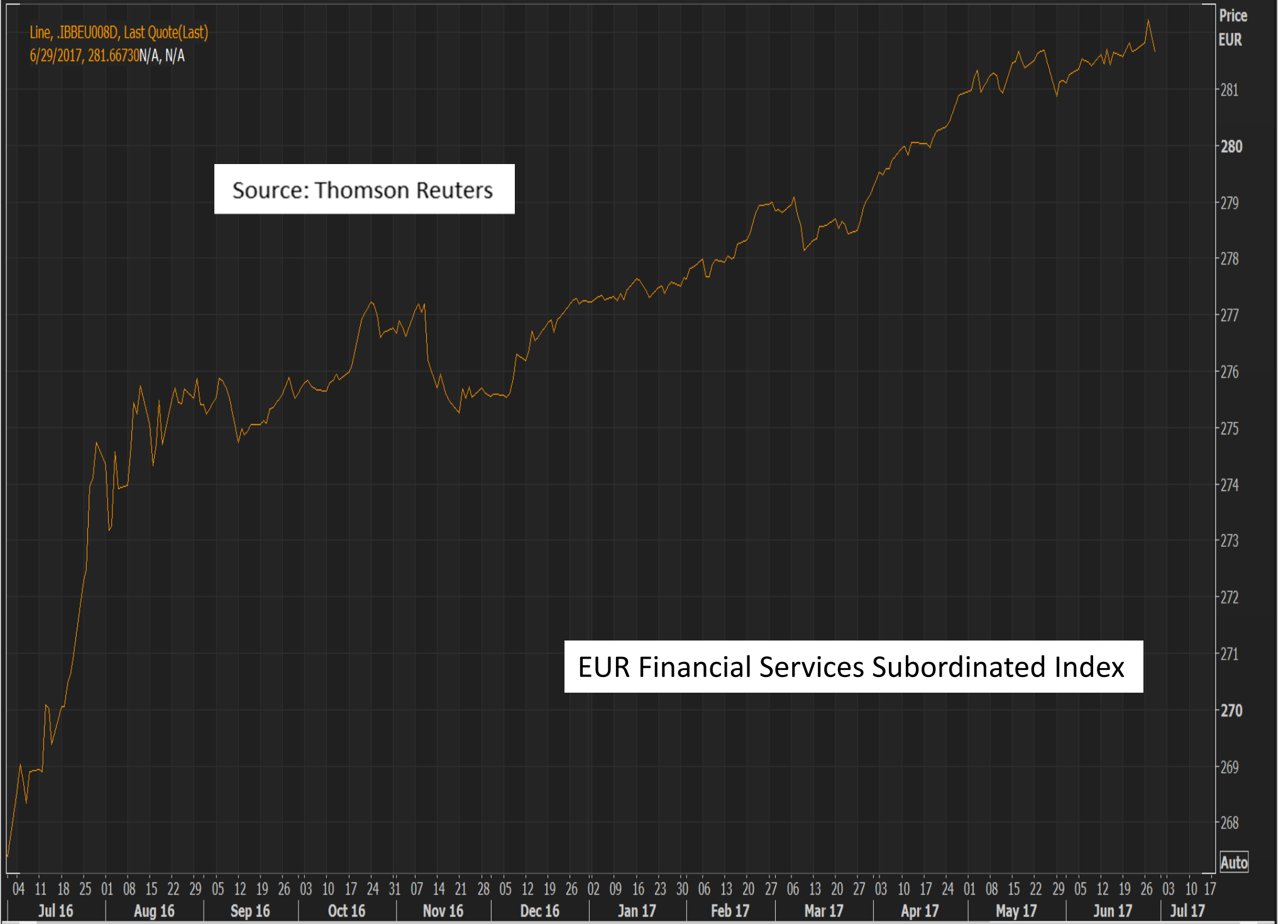
Daily .IBBEU008D   7/1/2016 - 7/18/2017 (GMT)

Line, .IBBEU008D, Last Quote(Last)
6/29/2017, 281.66730N/A, N/A

Source: Thomson Reuters

EUR Financial Services Subordinated Index

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Commodities

Commodities Indices	Yearly Return	DS LPPL Trust	DS LPPL Confidence
Positive Bubbles			
Live Cattle ER Index	13.4%	19.5%	31.7%
Feeder Cattle ER Index	10.9%	15.8%	21.8%
Live Stock ER Index	2.9%	9.8%	27.4%
Negative Bubbles			
Softs ER Index	-23.8%	14.8%	36.5%
Sugar ER Index	-34.6%	14.7%	33.8%
White Sugar ER Index	-25.6%	12.4%	24.4%
Agriculture ER Index	-18.5%	8.3%	6.0%
Coffee ER Index	-21.9%	6.8%	31.4%

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

It is worth stressing that, for the second consecutive month, the Live and Feeder Cattle indices are showing positive bubble signals, and the Softs and Sugar indices are showing negative bubble signals.

DS Bubble Inspectors Viewer - "Bubble end flag - long time scale"

Date: 2017-06-29   Name: Raw Sugar-ISA Daily Price   Indicator: DS LPPL Confidence ▼

Early bubble warning - long time scale ▼

FINANCIAL CRISIS OBSERVATORY

Raw Sugar Index

Prices
DS LPPL Confidence
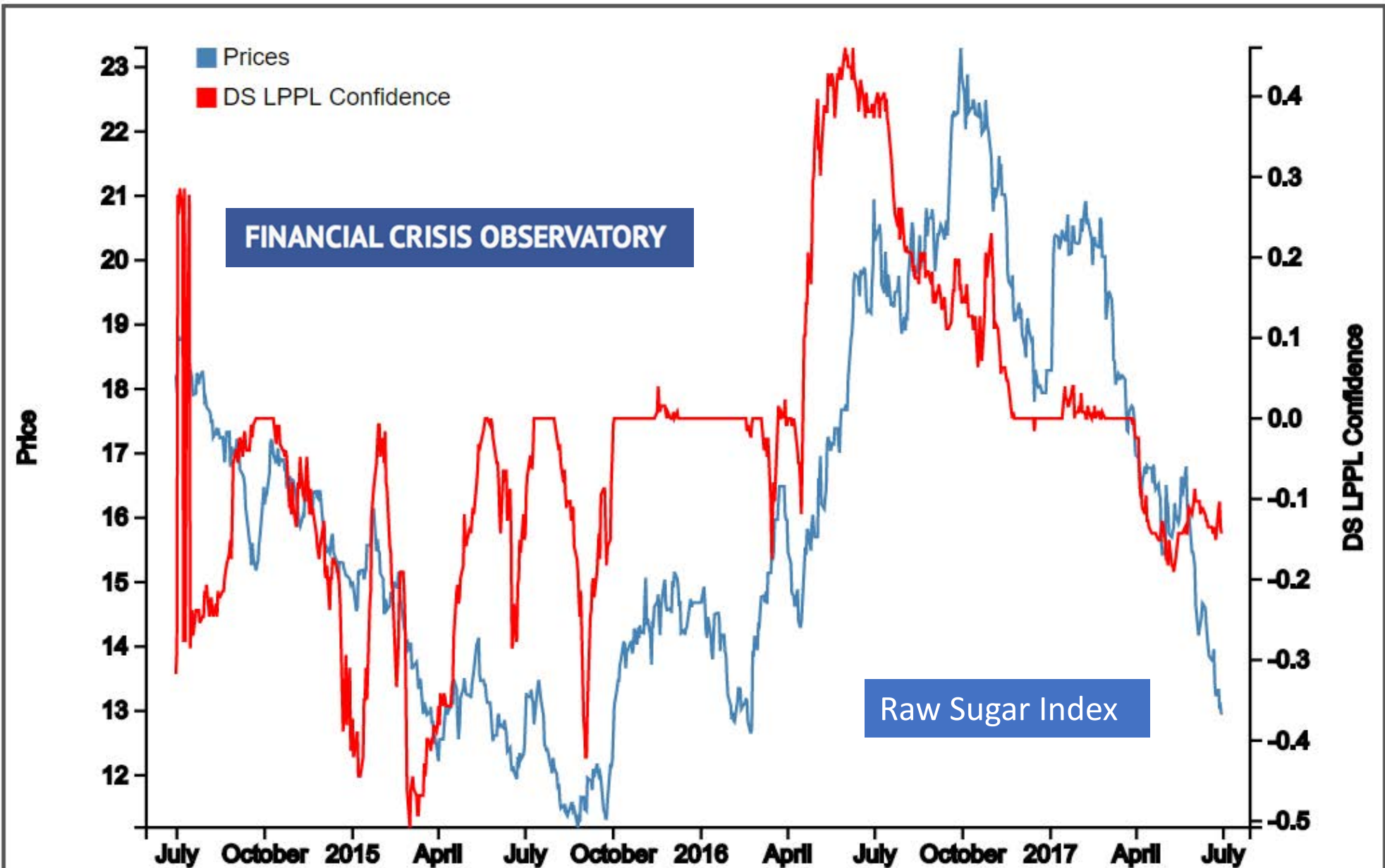
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Currencies

FX	Yearly Return	DS LPPL Trust	DS LPPL Confidence
US Dollar/Hong Kong Dollar	0.6%	50.5%	66.6%
Polish Zloty/Swiss Franc	2.7%	28.3%	18.4%
US Dollar/Polish Zloty	-1.5%	16.3%	21.0%
US Dollar/Czech Koruna	-1.3%	14.0%	21.6%
Czech Koruna/Euro	3.1%	13.5%	36.4%
Swedish Krona/Euro	-4.8%	9.4%	14.2%
Czech Koruna/Swiss Franc	2.6%	8.8%	14.6%
Hong Kong Dollar/Euro	1.2%	8.2%	16.2%
Qatar Rial/Euro	0.8%	8.1%	19.3%
Canadian Dollar/Swiss Franc	-2.7%	8.1%	14.7%
US Dollar/Iceland Krona	-14.8%	7.9%	26.9%
Polish Zloty/Euro	3.3%	7.5%	6.4%
Brazilian Real/Euro	1.6%	7.3%	6.9%
Canadian Dollar/Euro	-2.2%	6.6%	12.9%
US Dollar/Danish Krone	1.6%	6.6%	16.3%
US Dollar/Bulgarian Lev	1.7%	6.5%	15.2%
Saudi Arabian Riyal/Euro	1.7%	6.2%	15.3%
Euro/US Dollar	-1.7%	6.2%	14.8%
Australian Dollar/Swiss Franc	0.6%	5.5%	6.2%
Hong Kong Dollar/Swiss Franc	0.6%	5.5%	22.6%

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Currencies

There are signs of a positive bubble in the Polish Zloty, Czech Koruna and Hong Kong Dollar for the second consecutive month. Nine of the twenty pairs that are showing bubble signals are crossed with these three pairs. In the case of the Zloty and Czeck Koruna, this reflects the strength of the economies of the two eastern European countries.

Finally, the positive bubble signals in the Indian Rupee over the last two months, disappeared.

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Stocks country indices

Equities Countires Indices	Yearly Return	DS LPPL Trust	DS LPPL Confidence	Country
Bursatil Index	806.7%	41.3%	46.1%	Venezuela
Austrian Traded Index	36.4%	40.9%	38.5%	Austria
OMX Riga_GI	48.4%	40.2%	56.6%	Latvia
Korea SE Kospi Index	19.7%	36.1%	36.7%	Korea
CNX Nifty Index	15.8%	28.3%	9.7%	India
IBEX 35 Index	19.6%	26.4%	10.9%	Spain
OMX Helsinki 25 Index	24.1%	25.1%	39.8%	Finland
NASDAQ Composite Index	27.6%	23.6%	47.8%	United States
EURO STOXX INDEX	18.1%	22.3%	7.5%	EU
CAC 40 Index	17.9%	21.8%	25.5%	France
New Zealand Se Top50 Free Index	10.7%	21.3%	35.3%	New Zealand
Deutsche Boerse DAX Index	24.1%	18.7%	10.3%	Germany
OMX Nordic 40 Index	12.3%	16.5%	25.5%	Nordic Countries
Athex General Composite Share Price Index	32.8%	15.7%	23.9%	Greece
Bucharest SE BET Index	28.5%	15.1%	11.9%	Romania
S&P BSE Sensex Index	15.3%	14.9%	15.3%	India
OMX Vilnius_GI	14.9%	14.9%	25.1%	Lithuania
BEL 20 Index	9.9%	14.7%	7.3%	Belgium
BIST 100 Index	27.8%	14.7%	16.2%	Turkey
Hang Seng Index	23.0%	12.9%	33.3%	Hong Kong
OMX Stockholm 30 Index	20.9%	11.6%	22.5%	Sweden
OMX Copenhagen 20 Index	5.6%	11.3%	30.2%	Denmark
Euronext Lisbon PSI 20 Index	10.9%	10.9%	16.2%	Portugal
Swiss Market Index	12.6%	9.8%	14.8%	Switzerland
ISEQ Overall Price Index	9.8%	8.8%	8.7%	Ireland
Philippine SE Composite Index	1.1%	8.3%	17.9%	Philippine
Taiwan SE Weighted Index	19.6%	8.0%	20.3%	Taiwan
Vietnam Index	21.6%	5.9%	22.7%	Vietnam
CSE General Index	9.7%	5.0%	16.5%	Cyprus
Negative Bubbles				
Muscat SE General Index	-11.7%	7.0%	7.9%	Oman
Qatar Exchange General Index	-9.4%	5.1%	14.5%	Qatar

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Stocks country indices

New positive bubbles continue to appear in equities. The most interesting result is found for the EUR STOXX and U.S. Nasdaq Composite indices that are showing signs of positive bubbles for the fifth consecutive month. In addition, Qatar and Oman stock market indices are showing negative bubble signals for the first month, likely related to the Gulf diplomatic crisis that started earlier this month, especially in the case of Qatar.

It is worth mentioning that around 58% of the indices that are showing signs of bubbles are in Europe. The European shares were supported over the last three months after the improvement of both the European political and macroeconomic environments.

Finally, the positive bubble signals in the Netherlands stock market index over the last five months disappeared.

DS Bubble Inspectors Viewer - "Bubble end flag - long time scale"

Date: 2017-06-29   Name: ATX - AUSTRIAN TRADED   Indicator: DS LPPL Confidence

Bubble end flag - long time scale

Austria Stock Market Index

FINANCIAL CRISIS OBSERVATORY

- Prices
- DS LPPL Confidence

DS Bubble Inspectors Viewer - "Bubble end flag - long time scale"

Date: 2017-06-29   Name: FRANCE CAC 40   Indicator: DS LPPL Confidence ▼

Bubble end flag - long time scale ▼

France Stock Market Index

FINANCIAL CRISIS OBSERVATORY

Legend:
- Prices
- DS LPPL Confidence

Single Stocks

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What is this?

For 850 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 <u>value score</u> 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 <u>growth score</u> 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.

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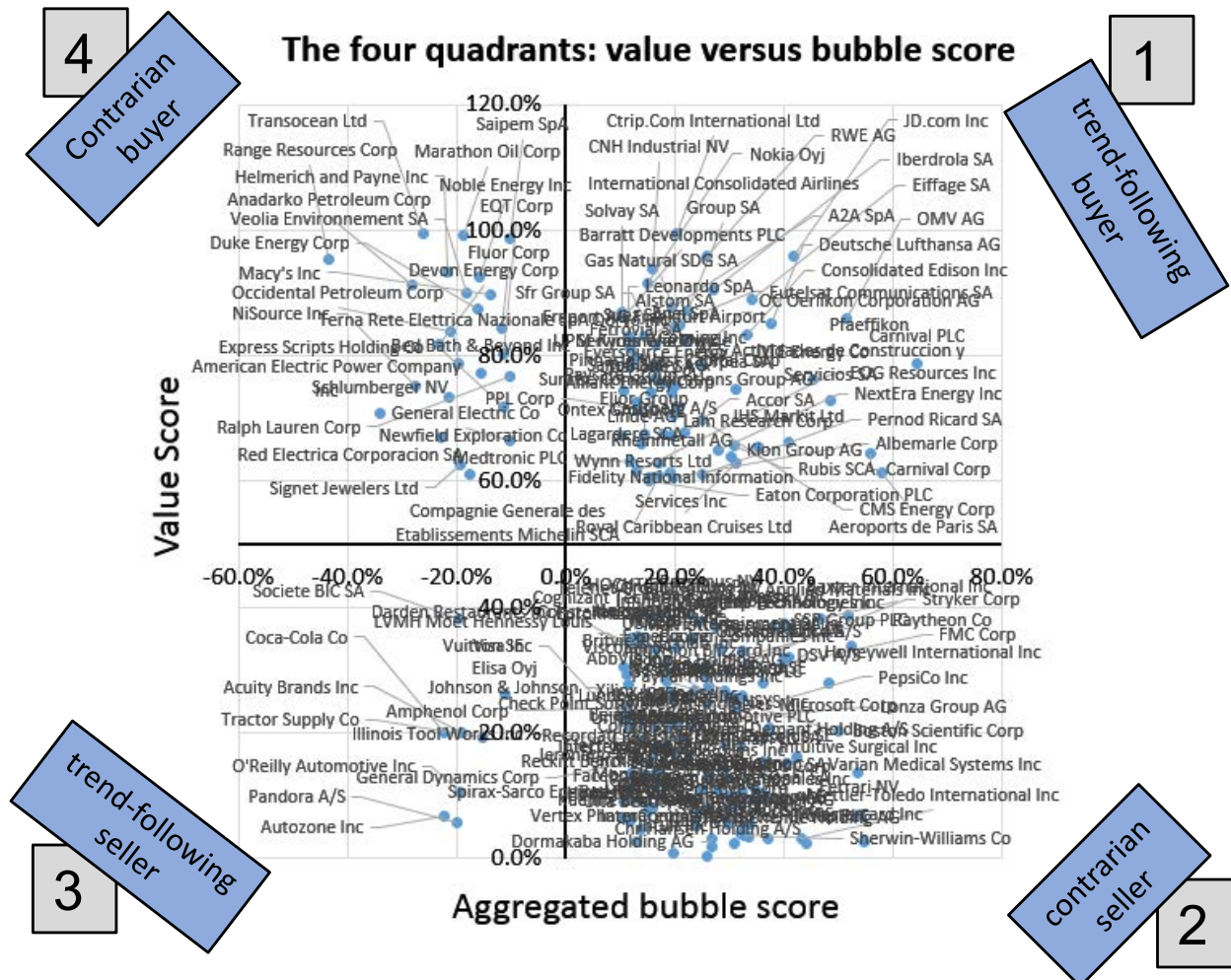
By plotting the value score against the aggregated bubble score, we can divide the stocks into four quadrants*:

1. **Quadrant 1:** Stocks with a strong positive bubble score and a strong value score (e.g. RWE AG);
2. **Quadrant 2:** Stocks with a strong positive bubble score and a weak value score (e.g. PepsiCo Inc);
3. **Quadrant 3:** Stocks with a strong negative bubble score and a weak value score (e.g. Coca-Cola Co);
4. **Quadrant 4:** Stocks with strong negative bubble score and a strong financial strength (e.g. Macy's Inc)

*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%.
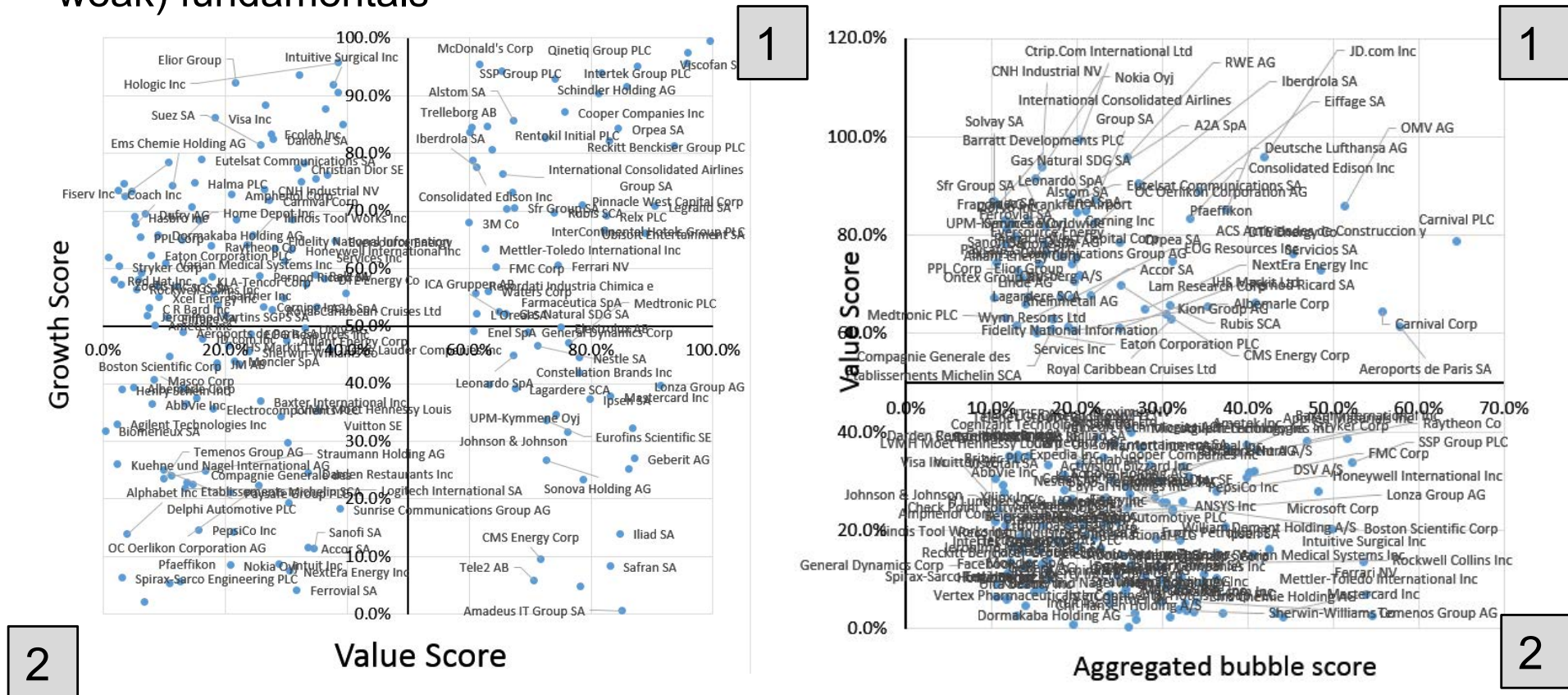
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Each quadrant has its own specs:

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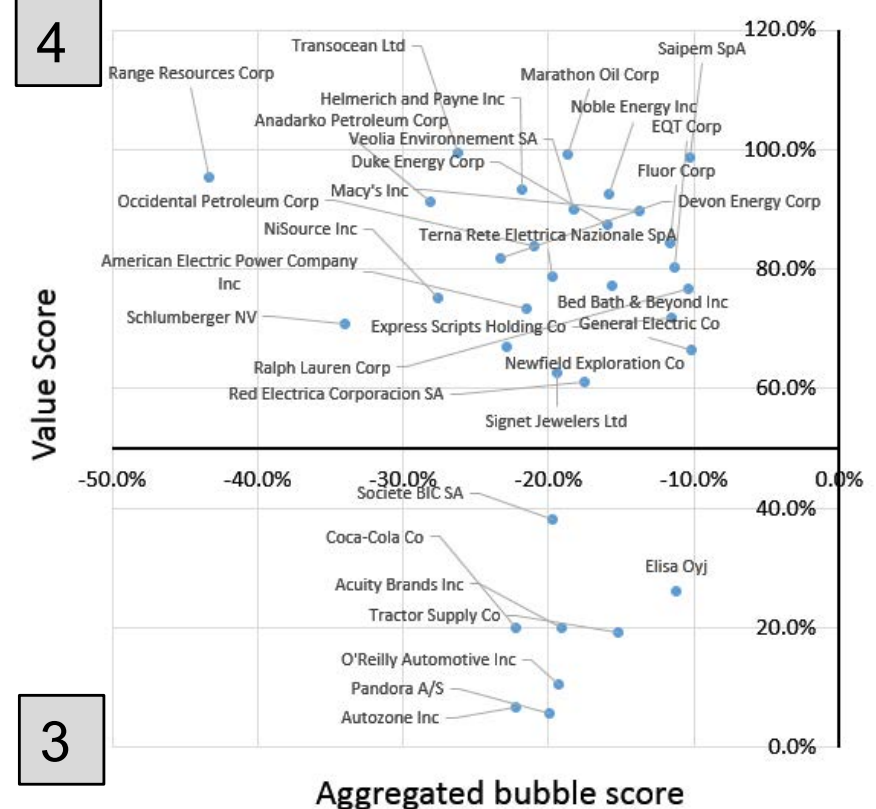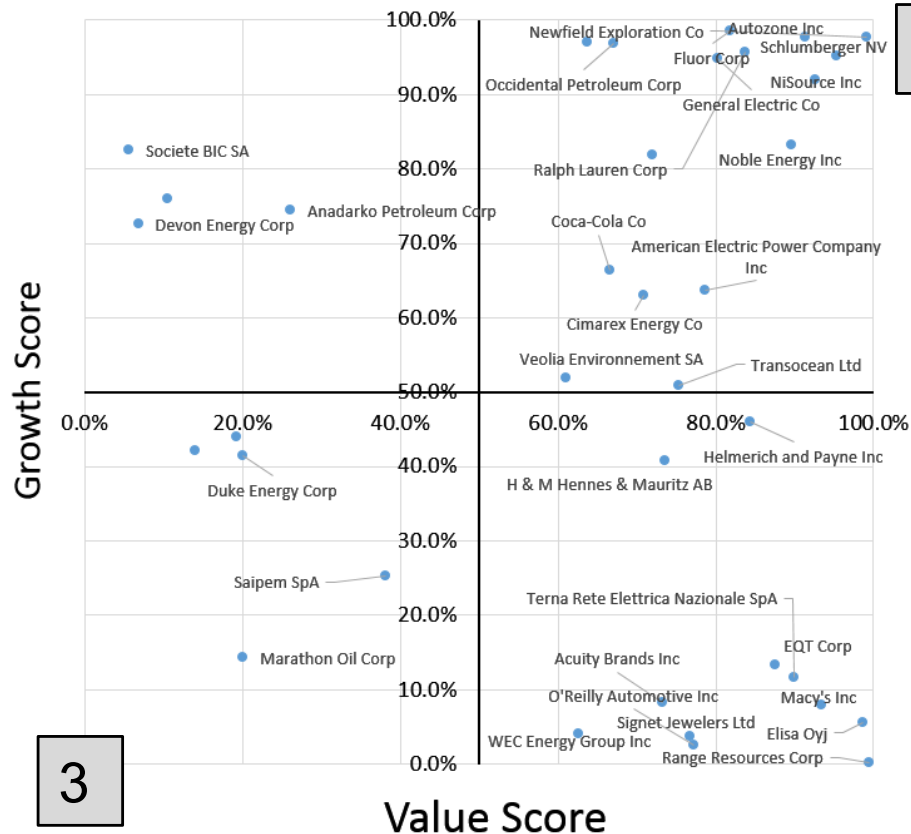
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Quadrant 1 and 2 stocks: strong positive bubble signals with strong (respectively weak) fundamentals

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

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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	30.7%	20.4%	99.5%	99.4%
IHS Markit Ltd	United Kingdom	Industrials	Commercial & Professional Services	35.1%	40.9%	66.2%	70.2%
JD.com Inc	China	Consumer Discretionary	Retailing	84.7%	41.9%	95.9%	97.4%
Lam Research Corp	United States of America	Information Technology	Semiconductors & Semiconductor Equipment	68.2%	35.2%	65.4%	94.1%
Qorvo Inc	United States of America	Information Technology	Semiconductors & Semiconductor Equipment	14.6%	11.8%	81.4%	90.4%
Wynn Resorts Ltd	United States of America	Consumer Discretionary	Consumer Services	48.0%	15.3%	60.6%	84.5%
Ontex Group NV	Belgium	Consumer Staples	Household & Personal Products	10.1%	10.3%	67.2%	73.1%
Solvay SA	Belgium	Materials	Materials	40.9%	10.4%	86.9%	32.2%
Barratt Developments PLC	United Kingdom	Consumer Discretionary	Consumer Durables & Apparel	39.0%	10.8%	86.2%	25.2%
Carnival PLC	United Kingdom	Consumer Discretionary	Consumer Services	53.5%	64.4%	78.8%	23.3%
Fraport AG Frankfurt Airport Services Worldwide	Germany	Industrials	Transportation	61.0%	16.2%	78.4%	4.7%
Kion Group AG	Germany	Industrials	Capital Goods	54.1%	30.4%	63.9%	80.6%
Deutsche Lufthansa AG	Germany	Industrials	Transportation	89.2%	37.6%	85.2%	0.5%
Linde AG	Germany	Materials	Materials	32.3%	14.0%	66.1%	52.1%
Rheinmetall AG	Germany	Industrials	Capital Goods	56.2%	19.0%	61.3%	77.4%
RWE AG	Germany	Utilities	Utilities	22.9%	26.0%	95.8%	95.5%
Carlsberg A/S	Denmark	Consumer Staples	Food, Beverage & Tobacco	9.6%	18.1%	67.4%	85.6%
ACS Actividades de Construccion y Servicios SA	Spain	Industrials	Capital Goods	43.6%	48.6%	72.8%	33.5%
Gas Natural SDG SA	Spain	Utilities	Utilities	16.0%	21.0%	84.8%	13.9%
Ferrovial SA	Spain	Industrials	Capital Goods	15.8%	12.8%	79.9%	37.2%
Iberdrola SA	Spain	Utilities	Utilities	19.0%	27.2%	90.6%	70.7%
Accor SA	France	Consumer Discretionary	Consumer Services	18.3%	21.7%	67.8%	39.1%
Aeroports de Paris SA	France	Industrials	Transportation	42.7%	57.8%	61.4%	52.0%

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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
Alstom SA	France	Industrials	Capital Goods	46.6%	20.0%	84.6%	84.2%
Danone SA	France	Consumer Staples	Food, Beverage & Tobacco	3.8%	15.7%	74.1%	69.6%
Elior Group	France	Consumer Discretionary	Consumer Services	29.6%	14.4%	67.5%	70.5%
Eutelsat Communications SA	France	Consumer Discretionary	Media	31.3%	14.3%	83.2%	8.2%
Eiffage SA	France	Industrials	Capital Goods	23.9%	34.3%	88.9%	66.0%
Compagnie Generale des Etablissements Michelin SCA	France	Consumer Discretionary	Automobiles & Components	36.6%	17.1%	60.9%	49.1%
Lagardere SCA	France	Consumer Discretionary	Media	40.7%	19.4%	67.3%	44.8%
Orpea SA	France	Health Care	Health Care Equipment & Services	31.7%	31.2%	74.7%	60.5%
Pernod Ricard SA	France	Consumer Staples	Food, Beverage & Tobacco	17.1%	25.0%	61.2%	55.5%
Rubis SCA	France	Utilities	Utilities	44.0%	30.9%	65.6%	76.4%
Suez SA	France	Utilities	Utilities	15.2%	12.4%	82.2%	66.6%
Sfr Group SA	France	Telecommunication Services	Telecommunication Services	31.1%	16.4%	81.8%	93.8%
Sanofi SA	France	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	11.8%	10.6%	74.4%	34.5%
A2A SpA	Italy	Utilities	Utilities	23.4%	19.4%	87.8%	95.1%
CNH Industrial NV	United Kingdom	Industrials	Capital Goods	53.0%	15.9%	93.8%	81.2%
Enel SpA	Italy	Utilities	Utilities	17.9%	22.1%	82.6%	69.1%
Leonardo SpA	Italy	Industrials	Capital Goods	60.6%	11.6%	83.1%	82.1%
International Consolidated Airlines Group SA	United Kingdom	Industrials	Transportation	64.9%	22.3%	87.2%	26.9%
Nokia Oyj	Finland	Information Technology	Technology Hardware & Equipment	4.9%	15.1%	91.5%	39.5%
UPM-Kymmene Oyj	Finland	Materials	Materials	52.2%	11.7%	78.2%	44.5%
OMV AG	Austria	Energy	Energy	80.2%	51.4%	86.0%	91.4%
Paysafe Group PLC	Isle of Man	Information Technology	Software & Services	31.4%	13.1%	72.7%	26.7%
Dufry AG	Switzerland	Consumer Discretionary	Retailing	35.1%	19.4%	74.2%	92.8%

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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
Sunrise Communications Group AG	Switzerland	Telecommunication Services	Telecommunication Services	21.1%	20.3%	71.9%	9.5%
OC Oerlikon Corporation AG Pfaeffikon	Switzerland	Industrials	Capital Goods	47.5%	18.1%	75.8%	87.1%
Albemarle Corp	United States of America	Materials	Materials	33.1%	19.8%	60.7%	78.7%
Carnival Corp	United States of America	Consumer Discretionary	Consumer Services	48.3%	55.8%	64.5%	60.1%
CMS Energy Corp	United States of America	Utilities	Utilities	0.9%	25.1%	69.8%	48.9%
DTE Energy Co	United States of America	Utilities	Utilities	6.7%	45.3%	76.2%	31.5%
Consolidated Edison Inc	United States of America	Utilities	Utilities	0.5%	33.3%	83.3%	37.8%
EOG Resources Inc	United States of America	Energy	Energy	8.5%	13.0%	61.8%	95.4%
Eversource Energy	United States of America	Utilities	Utilities	1.4%	16.5%	76.4%	47.1%
Eaton Corporation PLC	Ireland; Republic of	Industrials	Capital Goods	30.3%	15.3%	60.1%	67.9%
Fidelity National Information Services Inc	United States of America	Information Technology	Software & Services	15.9%	17.2%	62.8%	63.3%
Corning Inc	United States of America	Information Technology	Technology Hardware & Equipment	46.7%	25.0%	78.6%	70.9%
Alliant Energy Corp	United States of America	Utilities	Utilities	1.2%	13.6%	71.4%	46.6%
Medtronic PLC	Ireland; Republic of	Health Care	Health Care Equipment & Services	2.3%	11.7%	63.2%	56.0%
NextEra Energy Inc	United States of America	Utilities	Utilities	7.5%	28.0%	64.9%	52.4%
Pinnacle West Capital Corp	United States of America	Utilities	Utilities	5.1%	19.9%	75.2%	49.6%
PPL Corp	United States of America	Utilities	Utilities	2.4%	19.8%	70.7%	5.8%
Royal Caribbean Cruises Ltd	United States of America	Consumer Discretionary	Consumer Services	62.7%	31.1%	63.1%	84.6%
Xcel Energy Inc	United States of America	Utilities	Utilities	2.5%	24.7%	78.1%	41.8%
ICA Gruppen AB	Sweden	Consumer Staples	Food & Staples Retailing	11.3%	34.1%	63.4%	39.8%
Tele2 AB	Sweden	Telecommunication Services	Telecommunication Services	24.5%	13.0%	60.2%	83.5%
Trelleborg AB	Sweden	Industrials	Capital Goods	29.3%	15.5%	72.6%	82.6%

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

Quadrant 1 stocks: strong positive bubble signals with strong fundamentals, example Wynn Resorts Ltd.
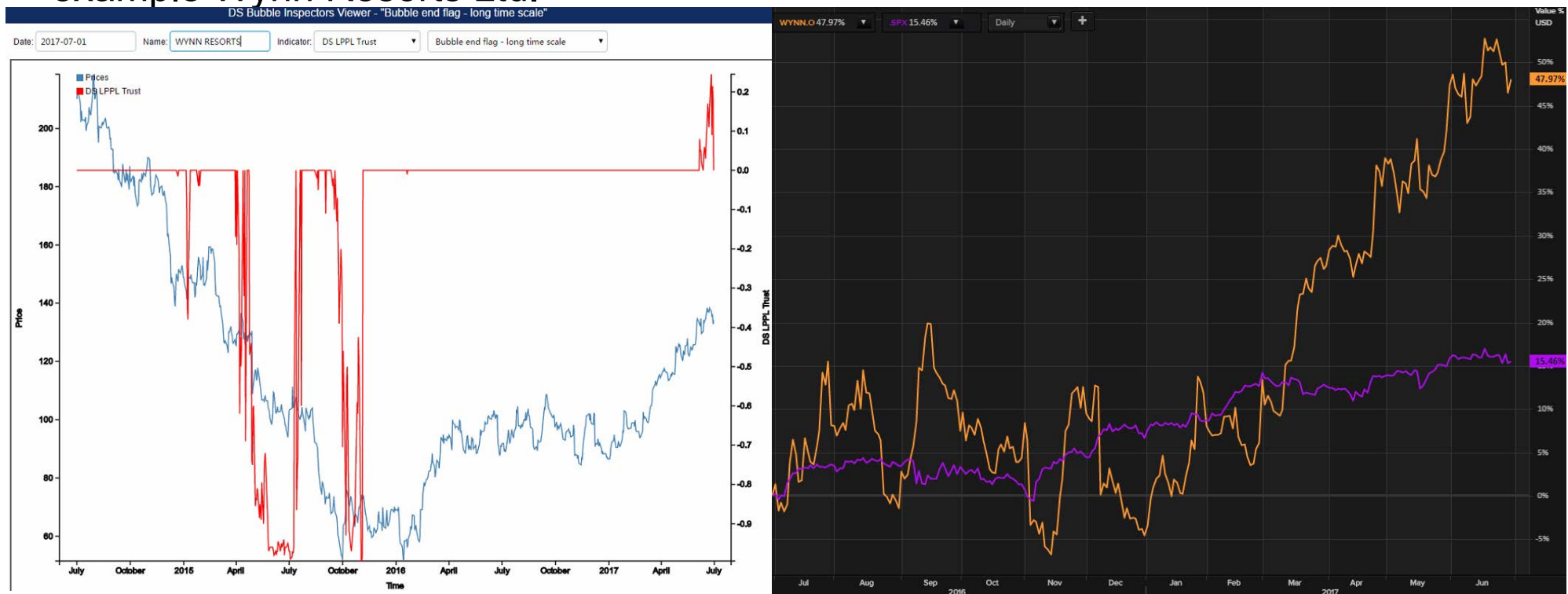
The left graph is a standard output from the Financial Crisis Observatory. It shows the historical price evolution of the stock in blue (left hand scale) and the calculated bubble warning index DS LPPL Trust in red (right hand scale). We can see a clearly spiking warning, indicating the convergence towards 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 32%.

Last month example: strong positive bubble signals with strong fundamentals, Pinnacle West Capital Corp.

Note that a correction has occurred, in synchrony with our DS LPPL trust indicator, notwithstanding the strong fundamentals. This suggests a tactical buy as the stock is expected to rebound after further correcting.

Last month signal (1st Jun. 2017)   This month signal (1st July. 2017)

The FCO Cockpit –
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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.

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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	47.7%	27.9%	10.8%	78.4%
Autodesk Inc	United States of America	Information Technology	Software & Services	86.2%	32.0%	4.0%	13.8%
Align Technology Inc	United States of America	Health Care	Health Care Equipment & Services	86.4%	32.6%	5.3%	68.9%
Applied Materials Inc	United States of America	Information Technology	Semiconductors & Semiconductor Equipment	72.3%	51.7%	38.6%	95.6%
Amazon.com Inc	United States of America	Consumer Discretionary	Retailing	35.3%	37.1%	3.3%	38.9%
ANSYS Inc	United States of America	Information Technology	Software & Services	34.1%	37.4%	20.7%	46.5%
Activision Blizzard Inc	United States of America	Information Technology	Software & Services	45.3%	25.8%	28.9%	8.6%
Broadcom Ltd	Singapore	Information Technology	Semiconductors & Semiconductor Equipment	50.0%	24.4%	37.8%	91.8%
Cerner Corp	United States of America	Health Care	Health Care Equipment & Services	13.4%	22.8%	16.4%	47.8%
Check Point Software Technologies Ltd	Israel	Information Technology	Software & Services	36.9%	12.7%	16.6%	57.8%
Cognizant Technology Solutions Corp	United States of America	Information Technology	Software & Services	16.0%	16.6%	33.4%	57.2%
Electronic Arts Inc	United States of America	Information Technology	Software & Services	39.5%	24.7%	10.9%	44.6%
Expedia Inc	United States of America	Consumer Discretionary	Retailing	40.1%	18.5%	31.2%	68.4%
Facebook Inc	United States of America	Information Technology	Software & Services	32.1%	10.7%	8.9%	56.9%
Fiserv Inc	United States of America	Information Technology	Software & Services	12.5%	24.8%	21.9%	68.5%
Alphabet Inc	United States of America	Information Technology	Software & Services	31.3%	23.2%	21.5%	14.2%
Hasbro Inc	United States of America	Consumer Discretionary	Consumer Durables & Apparel	32.8%	17.5%	18.0%	58.5%
Hologic Inc	United States of America	Health Care	Health Care Equipment & Services	31.2%	13.2%	35.3%	35.3%
Henry Schein Inc	United States of America	Health Care	Health Care Equipment & Services	3.5%	21.1%	18.9%	53.5%
Intuit Inc	United States of America	Information Technology	Software & Services	19.0%	19.7%	0.9%	61.8%
Intuitive Surgical Inc	United States of America	Health Care	Health Care Equipment & Services	41.4%	53.6%	13.6%	36.5%
KLA-Tencor Corp	United States of America	Information Technology	Semiconductors & Semiconductor Equipment	24.9%	23.5%	26.7%	88.2%
Liberty Interactive Corp	United States of America	Consumer Discretionary	Retailing	55.7%	23.9%	6.9%	2.1%
Marriott International Inc	United States of America	Consumer Discretionary	Consumer Services	50.9%	32.5%	33.1%	78.1%
Microchip Technology Inc	United States of America	Information Technology	Semiconductors & Semiconductor Equipment	52.0%	37.9%	36.6%	87.5%
Mercadolibre Inc	Argentina	Information Technology	Software & Services	78.3%	33.6%	3.5%	74.7%

The FCO Cockpit –
Global Bubble Status July 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
Microsoft Corp	United States of America	Information Technology	Software & Services	34.7%	49.9%	20.2%	51.6%
Netflix Inc	United States of America	Consumer Discretionary	Retailing	63.3%	11.8%	6.0%	57.9%
PayPal Holdings Inc	United States of America	Information Technology	Software & Services	47.0%	25.9%	24.7%	65.6%
Tesla Inc	United States of America	Consumer Discretionary	Automobiles & Components	70.3%	34.9%	11.1%	5.2%
Ulta Beauty Inc	United States of America	Consumer Discretionary	Retailing	17.9%	14.0%	4.8%	73.3%
Vertex Pharmaceuticals Inc	United States of America	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	49.8%	13.0%	2.6%	73.5%
Xilinx Inc	United States of America	Information Technology	Semiconductors & Semiconductor Equipment	39.4%	11.8%	22.5%	43.3%
Proximus NV	Belgium	Telecommunication Services	Telecommunication Services	7.6%	26.4%	39.9%	55.6%
Telenet Group Holding NV	Belgium	Consumer Discretionary	Media	34.8%	17.2%	38.7%	90.5%
Britvic PLC	United Kingdom	Consumer Staples	Food, Beverage & Tobacco	18.3%	10.5%	30.5%	19.3%
Compass Group PLC	United Kingdom	Consumer Discretionary	Consumer Services	13.7%	20.2%	16.8%	24.8%
Croda International PLC	United Kingdom	Materials	Materials	23.8%	25.4%	14.8%	22.4%
Beiersdorf AG	Germany	Consumer Staples	Household & Personal Products	8.4%	14.2%	18.7%	42.8%
Fuchs Petrolub SE	Germany	Materials	Materials	35.1%	36.3%	15.4%	37.4%
HOCHTIEF AG	Germany	Industrials	Capital Goods	38.6%	13.8%	39.4%	84.9%
Infineon Technologies AG	Germany	Information Technology	Semiconductors & Semiconductor Equipment	42.5%	27.5%	36.8%	76.1%
Osram Licht AG	Germany	Industrials	Capital Goods	49.9%	40.1%	31.9%	4.1%
United Internet AG	Germany	Information Technology	Software & Services	29.4%	18.2%	18.1%	35.5%
Wirecard AG	Germany	Information Technology	Software & Services	41.2%	20.4%	33.6%	11.4%
Zalando SE	Germany	Consumer Discretionary	Retailing	68.7%	15.9%	13.2%	48.8%
Chr Hansen Holding A/S	Denmark	Materials	Materials	8.1%	26.0%	0.5%	31.8%
DSV A/S	Denmark	Industrials	Transportation	42.8%	48.2%	28.0%	82.4%
GN Store Nord A/S	Denmark	Health Care	Health Care Equipment & Services	58.0%	40.8%	32.0%	77.3%
H Lundbeck A/S	Denmark	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	46.3%	10.5%	21.8%	92.1%
William Demant Holding A/S	Denmark	Health Care	Health Care Equipment & Services	29.6%	42.5%	16.2%	78.8%
Amadeus IT Group SA	Spain	Information Technology	Software & Services	33.3%	32.3%	10.7%	51.4%

The FCO Cockpit –
Global Bubble Status July 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
Viscofan SA	Spain	Consumer Staples	Food, Beverage & Tobacco	4.4%	11.3%	29.3%	34.2%
Electrocomponents PLC	United Kingdom	Information Technology	Technology Hardware & Equipment	121.8%	16.7%	13.9%	22.8%
Biomerieux SA	France	Health Care	Health Care Equipment & Services	55.1%	30.5%	25.8%	58.6%
Christian Dior SE	France	Consumer Discretionary	Consumer Durables & Apparel	72.9%	32.3%	26.0%	81.3%
Eurofins Scientific SE	Luxembourg	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	47.8%	13.0%	34.7%	11.3%
Iliad SA	France	Telecommunication Services	Telecommunication Services	13.5%	23.1%	34.9%	58.8%
Ipsen SA	France	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	116.2%	40.6%	15.1%	74.8%
Legrand SA	France	Industrials	Capital Goods	32.3%	14.3%	35.2%	53.2%
LVMH Moet Hennessy Louis Vuitton SE	France	Consumer Discretionary	Consumer Durables & Apparel	60.5%	29.1%	26.6%	73.6%
L'Oreal SA	France	Consumer Staples	Household & Personal Products	6.0%	20.7%	21.6%	43.9%
Safran SA	France	Industrials	Capital Goods	31.7%	16.1%	20.9%	8.5%
Ubisoft Entertainment SA	France	Information Technology	Software & Services	50.5%	28.5%	33.3%	49.5%
Relx NV	Netherlands	Industrials	Commercial & Professional Services	15.3%	15.1%	7.4%	51.8%
Halma PLC	United Kingdom	Information Technology	Technology Hardware & Equipment	8.2%	19.1%	21.1%	21.1%
Moncler SpA	Italy	Consumer Discretionary	Consumer Durables & Apparel	45.0%	14.0%	9.2%	65.8%
Ferrari NV	Italy	Consumer Discretionary	Automobiles & Components	105.0%	53.8%	7.1%	69.4%
Recordati Industria Chimica e Farmaceutica SpA	Italy	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	31.6%	16.6%	11.5%	74.4%
InterContinental Hotels Group PLC	United Kingdom	Consumer Discretionary	Consumer Services	54.2%	31.0%	2.5%	26.0%
Intertek Group PLC	United Kingdom	Industrials	Commercial & Professional Services	21.2%	12.3%	13.5%	21.8%
Jeronimo Martins SGPS SA	Portugal	Consumer Staples	Food & Staples Retailing	20.7%	13.9%	12.4%	56.8%
Qinetiq Group PLC	United Kingdom	Industrials	Capital Goods	21.5%	22.3%	38.9%	18.2%
Reckitt Benckiser Group PLC	United Kingdom	Consumer Staples	Household & Personal Products	3.9%	11.9%	11.3%	23.9%
Relx PLC	United Kingdom	Industrials	Commercial & Professional Services	20.6%	29.9%	10.0%	23.4%
Rentokil Initial PLC	United Kingdom	Industrials	Commercial & Professional Services	41.5%	30.0%	25.6%	22.2%
Dormakaba Holding AG	Switzerland	Industrials	Capital Goods	22.6%	26.7%	3.2%	6.2%
Ems Chemie Holding AG	Switzerland	Materials	Materials	40.7%	44.1%	2.4%	32.9%

The FCO Cockpit –
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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
Geberit AG	Switzerland	Industrials	Capital Goods	21.5%	15.9%	8.1%	36.4%
Kuehne und Nagel International AG	Switzerland	Industrials	Transportation	17.5%	23.9%	5.2%	39.3%
Logitech International SA	United States of America	Information Technology	Technology Hardware & Equipment	123.1%	30.4%	8.6%	50.1%
Lonza Group AG	Switzerland	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	38.8%	11.7%	21.2%	72.7%
Nestle SA	Switzerland	Consumer Staples	Food, Beverage & Tobacco	11.0%	18.3%	25.9%	36.8%
Schindler Holding AG	Switzerland	Industrials	Capital Goods	15.3%	25.7%	7.6%	53.1%
SGS SA	Switzerland	Industrials	Commercial & Professional Services	4.3%	14.4%	13.3%	39.2%
Sonova Holding AG	Switzerland	Health Care	Health Care Equipment & Services	20.7%	26.2%	27.4%	71.8%
Straumann Holding AG	Switzerland	Health Care	Health Care Equipment & Services	42.1%	29.8%	5.4%	67.6%
Temenos Group AG	Switzerland	Information Technology	Software & Services	76.5%	34.0%	5.5%	56.4%
Spirax-Sarco Engineering PLC	United Kingdom	Industrials	Capital Goods	43.0%	16.8%	10.1%	24.9%
SSP Group PLC	United Kingdom	Consumer Discretionary	Consumer Services	69.3%	52.3%	33.8%	24.5%
Agilent Technologies Inc	United States of America	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	33.7%	41.0%	36.5%	58.1%
AbbVie Inc	United States of America	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	17.1%	11.5%	27.6%	83.3%
Ametek Inc	United States of America	Industrials	Capital Goods	31.0%	39.9%	37.4%	45.9%
Amphenol Corp	United States of America	Information Technology	Technology Hardware & Equipment	28.8%	31.2%	24.4%	48.6%
Baxter International Inc	United States of America	Health Care	Health Care Equipment & Services	33.9%	46.9%	38.1%	64.7%
C R Bard Inc	United States of America	Health Care	Health Care Equipment & Services	34.4%	25.8%	8.0%	62.2%
Boston Scientific Corp	United States of America	Health Care	Health Care Equipment & Services	18.6%	18.5%	28.2%	63.4%
Coach Inc	United States of America	Consumer Discretionary	Consumer Durables & Apparel	16.2%	19.4%	26.4%	53.3%
Rockwell Collins Inc	United States of America	Industrials	Capital Goods	23.4%	26.3%	13.1%	64.9%
Cooper Companies Inc	United States of America	Health Care	Health Care Equipment & Services	39.5%	33.1%	31.1%	63.2%
Delphi Automotive PLC	United Kingdom	Consumer Discretionary	Automobiles & Components	40.0%	29.2%	18.4%	55.4%
Darden Restaurants Inc	United States of America	Consumer Discretionary	Consumer Services	42.8%	31.3%	23.8%	64.0%
Ecolab Inc	United States of America	Materials	Materials	11.9%	24.2%	30.2%	47.4%
Estee Lauder Companies Inc	United States of America	Consumer Staples	Household & Personal Products	5.4%	32.0%	8.5%	40.6%

The FCO Cockpit –
Global Bubble Status July 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
FMC Corp	United States of America	Materials	Materials	57.7%	39.8%	30.7%	7.4%
General Dynamics Corp	United States of America	Industrials	Capital Goods	42.3%	13.6%	15.8%	14.6%
Home Depot Inc	United States of America	Consumer Discretionary	Retailing	20.1%	11.8%	6.2%	65.3%
Honeywell International Inc	United States of America	Industrials	Capital Goods	15.2%	36.3%	27.9%	52.7%
Gartner Inc	United States of America	Information Technology	Software & Services	26.8%	26.9%	1.9%	58.0%
Illinois Tool Works Inc	United States of America	Industrials	Capital Goods	37.5%	32.1%	17.9%	63.9%
Johnson & Johnson	United States of America	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	9.1%	10.9%	24.0%	45.4%
Mastercard Inc	United States of America	Information Technology	Software & Services	37.9%	54.6%	2.7%	60.4%
Masco Corp	United States of America	Industrials	Capital Goods	23.5%	22.1%	18.5%	86.1%
McDonald's Corp	United States of America	Consumer Discretionary	Consumer Services	27.3%	36.3%	10.4%	60.8%
3M Co	United States of America	Industrials	Capital Goods	18.9%	34.5%	9.3%	54.9%
Mettler-Toledo International Inc	United States of America	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	61.3%	43.3%	3.1%	57.1%
PepsiCo Inc	United States of America	Consumer Staples	Food, Beverage & Tobacco	9.0%	13.4%	18.8%	43.4%
Red Hat Inc	United States of America	Information Technology	Software & Services	31.9%	10.6%	6.5%	59.2%
Raytheon Co	United States of America	Industrials	Capital Goods	18.8%	24.3%	30.4%	29.6%
Sherwin-Williams Co	United States of America	Materials	Materials	19.5%	32.8%	3.6%	72.5%
Constellation Brands Inc	United States of America	Consumer Staples	Food, Beverage & Tobacco	17.1%	12.1%	35.1%	75.5%
Stryker Corp	United States of America	Health Care	Health Care Equipment & Services	15.8%	29.7%	29.9%	61.2%
Visa Inc	United States of America	Information Technology	Software & Services	26.4%	15.8%	16.0%	68.2%
Varian Medical Systems Inc	United States of America	Health Care	Health Care Equipment & Services	41.7%	29.6%	12.8%	5.6%
Waters Corp	United States of America	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	30.7%	40.0%	29.8%	54.7%
Zoetis Inc	United States of America	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	31.4%	18.3%	14.7%	70.6%
JM AB	Sweden	Consumer Discretionary	Consumer Durables & Apparel	41.3%	21.5%	32.2%	93.4%
Electrolux AB	Sweden	Consumer Discretionary	Consumer Durables & Apparel	20.8%	34.3%	32.6%	74.9%

The FCO Cockpit –
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Quadrant 2 stocks: strong positive bubble signals with weak fundamentals, example General Dynamics 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. 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 27% 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, Priceline Group Inc.

Note that the correction has started to occur, in synchrony with our DS LPPL trust indicator. This suggests continuing to short or get out of a long position on this stock.

Last month signal (1ˢᵗ Jun. 2017)   This month signal (1ˢᵗ July. 2017)

The FCO Cockpit –
Global Bubble Status July 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
O'Reilly Automotive Inc	United States of America	Consumer Discretionary	Retailing	-19.3%	-19.3%	10.5%	76.0%
Tractor Supply Co	United States of America	Consumer Discretionary	Retailing	-40.5%	-15.2%	19.3%	44.0%
Pandora A/S	Denmark	Consumer Discretionary	Consumer Durables & Apparel	-33.0%	-19.9%	5.6%	82.5%
Societe BIC SA	France	Industrials	Commercial & Professional Services	-18.2%	-19.7%	38.2%	25.3%
Elisa Oyj	Finland	Telecommunication Services	Telecommunication Services	-1.4%	-11.2%	26.1%	74.5%
Acuity Brands Inc	United States of America	Industrials	Capital Goods	-18.0%	-19.1%	20.0%	41.4%
Autozone Inc	United States of America	Consumer Discretionary	Retailing	-28.1%	-22.2%	6.8%	72.6%
Coca-Cola Co	United States of America	Consumer Staples	Food, Beverage & Tobacco	-1.1%	-22.3%	20.1%	14.4%
H & M Hennes & Mauritz AB	Sweden	Consumer Discretionary	Retailing	-14.8%	-18.2%	14.0%	42.1%

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

Quadrant 3 stocks: strong negative bubble signals with weak fundamentals, example Autozone Inc.

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 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 roughly -43%.

Last month example: strong negative bubble signals with weak fundamentals, H & M Hennes & Mauritz AB.

Note that the stock went down again in this month, in synchrony with the weak fundamentals, with our DS LPPL trust indicator confirming a negative bubble spirit.

Last month signal (1ˢᵗ Jun. 2017)   This month signal (1ˢᵗ July. 2017)

The FCO Cockpit –
Global Bubble Status July 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
Bed Bath & Beyond Inc	United States of America	Consumer Discretionary	Retailing	-29.7%	-15.6%	77.3%	2.6%
Express Scripts Holding Co	United States of America	Health Care	Health Care Equipment & Services	-15.8%	-11.5%	72.0%	81.9%
Red Electrica Corporacion SA	Spain	Utilities	Utilities	-8.7%	-17.5%	61.1%	51.9%
Veolia Environnement SA	France	Utilities	Utilities	-5.0%	-18.3%	90.0%	11.6%
Saipem SpA	Italy	Energy	Energy	-9.8%	-10.3%	98.7%	5.5%
Terna Rete Elettrica Nazionale SpA	Italy	Utilities	Utilities	-5.4%	-19.8%	78.7%	63.8%
American Electric Power Company Inc	United States of America	Utilities	Utilities	-0.9%	-21.5%	73.3%	8.4%
Anadarko Petroleum Corp	United States of America	Energy	Energy	-14.9%	-28.1%	91.3%	97.6%
Duke Energy Corp	United States of America	Utilities	Utilities	-2.6%	-16.0%	87.5%	13.3%
Devon Energy Corp	United States of America	Energy	Energy	-11.8%	-23.3%	81.9%	98.5%
EQT Corp	United States of America	Energy	Energy	-24.3%	-11.3%	80.2%	94.8%
Fluor Corp	United States of America	Industrials	Capital Goods	-7.1%	-11.6%	84.4%	46.0%
General Electric Co	United States of America	Industrials	Capital Goods	-14.2%	-10.1%	66.6%	66.4%
Helmerich and Payne Inc	United States of America	Energy	Energy	-19.1%	-21.8%	93.4%	8.0%
Macy's Inc	United States of America	Consumer Discretionary	Retailing	-30.9%	-13.7%	89.6%	83.2%
Marathon Oil Corp	United States of America	Energy	Energy	-21.1%	-18.7%	99.2%	97.8%
Noble Energy Inc	United States of America	Energy	Energy	-21.1%	-15.8%	92.6%	92.0%
Newfield Exploration Co	United States of America	Energy	Energy	-35.6%	-22.9%	67.1%	96.8%
NiSource Inc	United States of America	Utilities	Utilities	-4.4%	-27.6%	75.3%	50.8%
Occidental Petroleum Corp	United States of America	Energy	Energy	-20.8%	-21.0%	83.8%	95.8%
Transocean Ltd	Switzerland	Energy	Energy	-30.8%	-26.2%	99.4%	0.1%
Ralph Lauren Corp	United States of America	Consumer Discretionary	Consumer Durables & Apparel	-17.7%	-10.4%	76.7%	3.8%
Range Resources Corp	United States of America	Energy	Energy	-46.3%	-43.3%	95.3%	95.2%
Signet Jewelers Ltd	Bermuda	Consumer Discretionary	Retailing	-23.3%	-19.5%	62.6%	4.0%
Schlumberger NV	United States of America	Energy	Energy	-16.7%	-34.0%	70.8%	62.9%
WEC Energy Group Inc	United States of America	Utilities	Utilities	-6.0%	-15.1%	73.5%	40.7%
Cimarex Energy Co	United States of America	Energy	Energy	-21.2%	-20.3%	63.8%	97.1%

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**Quadrant 4 stocks:** strong negative bubble signals with strong fundamentals, example Bed Bath & Beyond Inc

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 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 -45%. 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.

Last month example: strong negative bubble signals with strong fundamentals, Occidental Petroleum Corp.

Note that the stock has stopped further drawdown, in synchrony with our DS LPPL trust indicator, and in agreement with the strong fundamentals. We expect this stock to continue appreciating. This suggests a strong buy opportunity.

Last month signal (1st Jun. 2017)   This month signal (1st July. 2017)
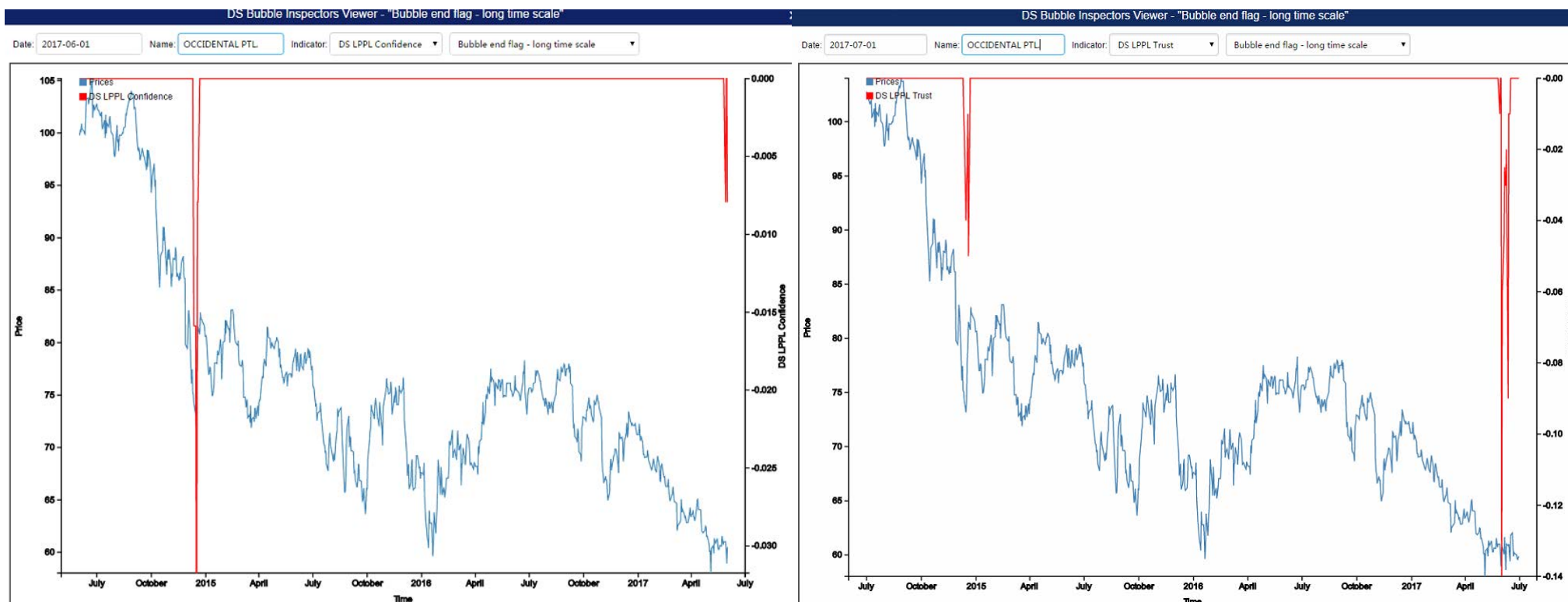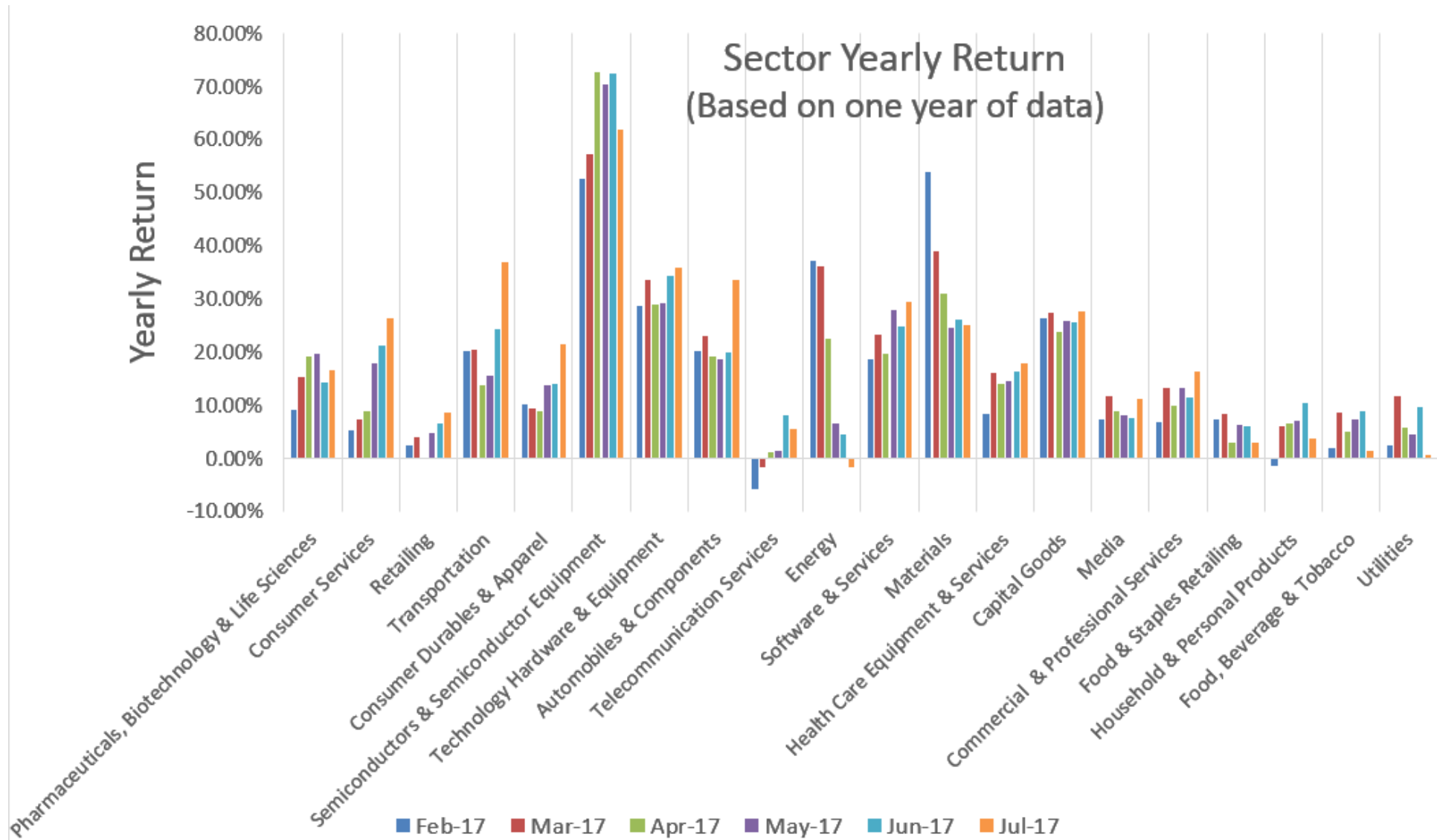
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Sectors

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| GICS Industry Group Name	Yearly Return		Bubble Score		Value Score		Growth Score	
	July 1st	June 1st	July 1st	June 1st	July 1st	June 1st	July 1st	June 1st
Pharmaceuticals, Biotechnology & Life Sciences	16.7%	14.2%	8.1%	7.2%	38.2%	38.0%	51.1%	50.7%
Consumer Services	26.4%	21.2%	17.3%	10.2%	44.7%	43.9%	48.3%	50.4%
Retailing	8.6%	6.8%	2.7%	4.2%	40.5%	41.4%	42.7%	42.2%
Transportation	37.0%	24.3%	10.7%	8.1%	49.3%	50.8%	40.2%	38.3%
Consumer Durables & Apparel	21.6%	14.1%	6.0%	10.9%	43.0%	45.0%	51.5%	56.8%
Semiconductors & Semiconductor Equipment	61.9%	72.5%	12.0%	13.0%	43.8%	41.3%	76.0%	75.4%
Technology Hardware & Equipment	36.0%	34.4%	7.0%	5.2%	48.9%	46.2%	46.7%	44.6%
Automobiles & Components	33.6%	20.1%	6.3%	8.0%	65.2%	65.3%	60.5%	60.4%
Telecommunication Services	5.6%	8.1%	4.2%	5.8%	68.1%	67.0%	38.6%	38.5%
Energy	-1.5%	4.6%	-4.1%	-1.2%	76.9%	77.1%	68.0%	68.9%
Software & Services	29.5%	24.8%	13.8%	10.9%	32.5%	33.4%	49.8%	47.4%
Materials	25.2%	26.3%	4.5%	4.5%	58.2%	57.7%	54.4%	54.9%
Health Care Equipment & Services	17.8%	16.5%	13.9%	10.0%	40.1%	42.1%	52.8%	52.9%
Capital Goods	27.7%	25.7%	9.7%	10.3%	46.3%	46.1%	50.0%	50.1%
Media	11.4%	7.6%	3.4%	1.6%	57.1%	57.6%	49.4%	48.0%
Commercial & Professional Services	16.4%	11.6%	5.6%	4.4%	40.9%	40.5%	42.2%	41.3%
Food & Staples Retailing	3.1%	6.1%	3.3%	2.5%	58.2%	57.8%	40.6%	43.4%
Household & Personal Products	3.8%	10.5%	8.3%	5.4%	20.1%	21.2%	42.3%	44.3%
Food, Beverage & Tobacco	1.5%	9.0%	4.5%	4.0%	39.4%	38.4%	48.2%	47.7%
Utilities	0.8%	9.7%	4.6%	4.0%	78.2%	77.8%	38.7%	38.3%

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 six months has a smaller bubble score, which demonstrates that the strong momentums in this industry is declining.
- The sector *Energy* has a significant negative bubble score, reflecting the recent drawdowns of energy prices. The strong value score in this sector calls for a contrarian buy position.
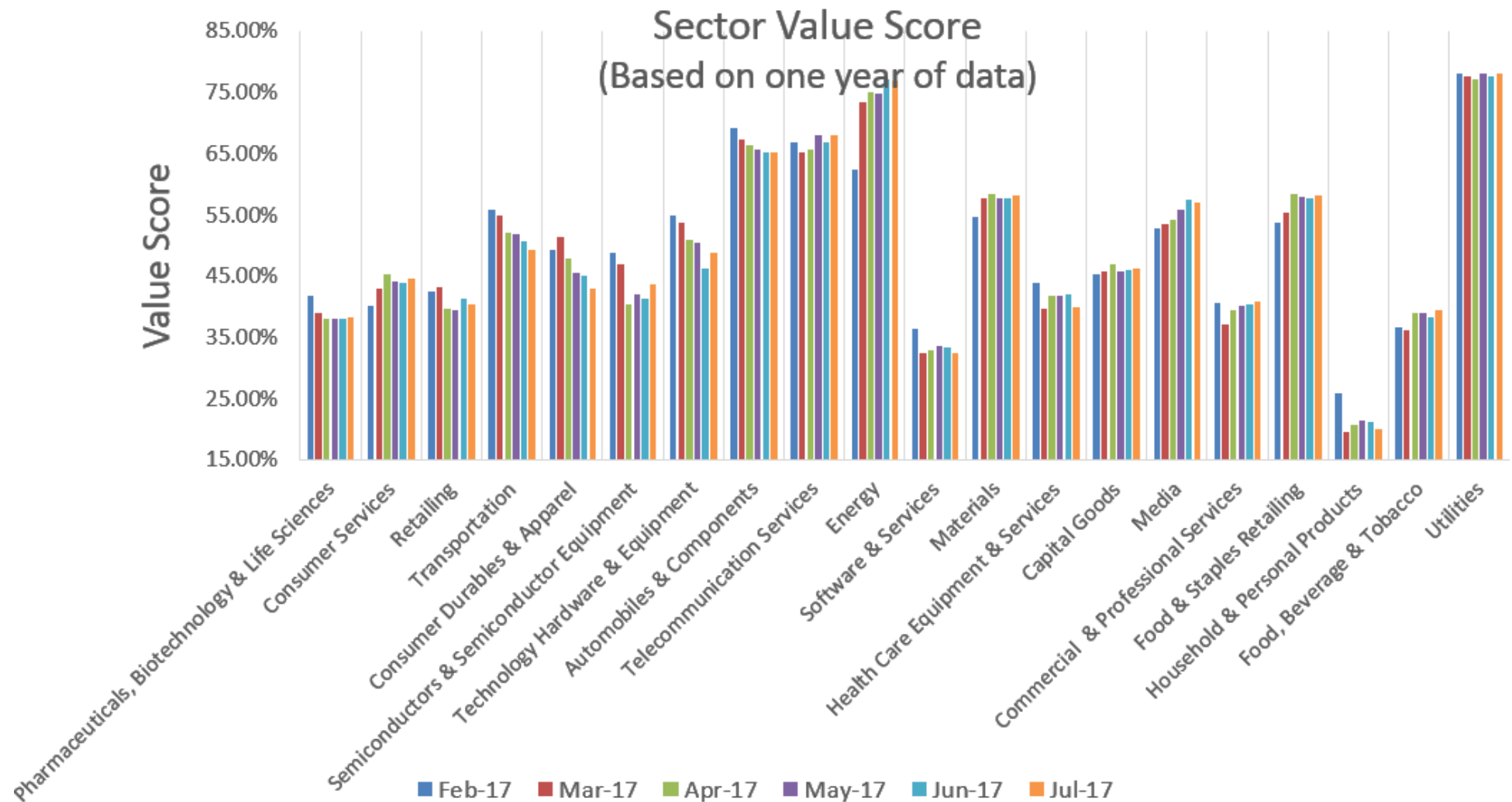
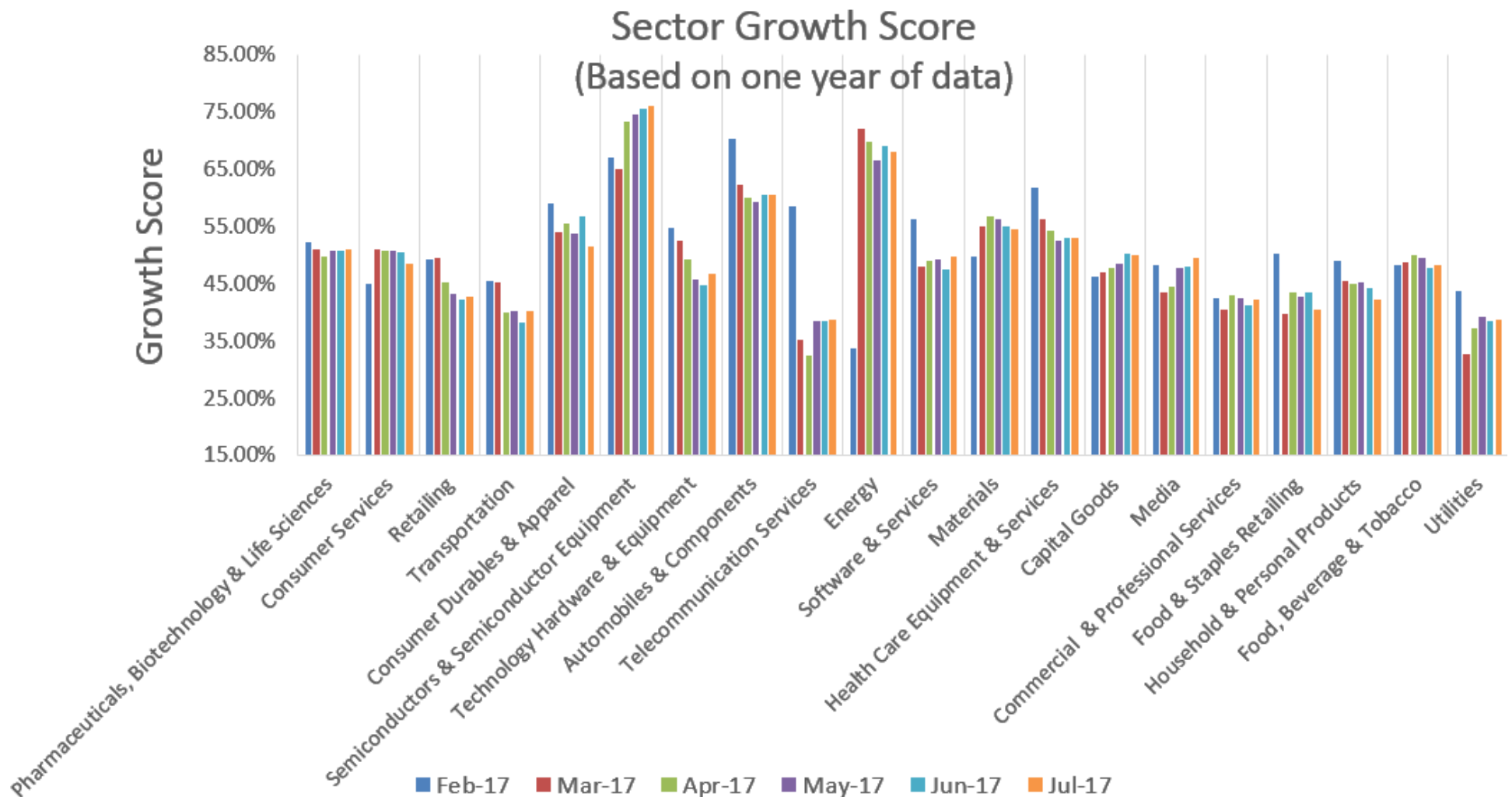# The FCO Cockpit –
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Sector Yearly Return (Based on one year of data)

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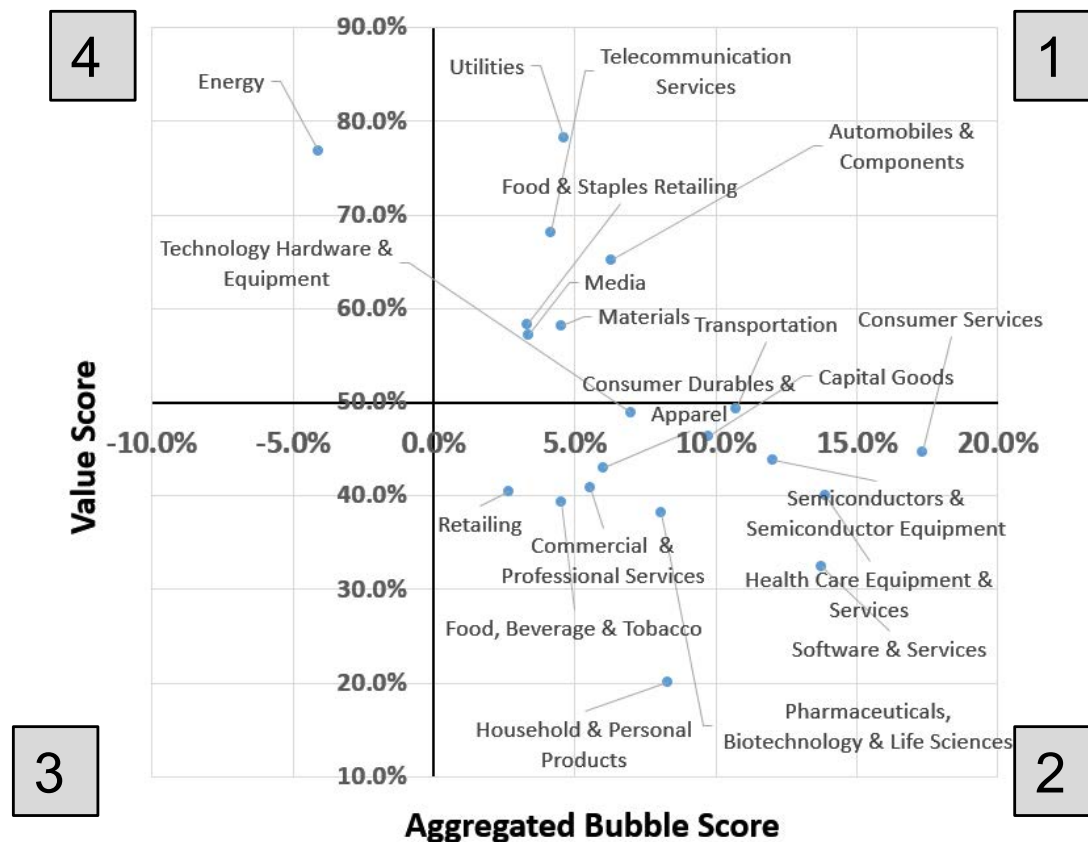# Global Bubble Status July 1st, 2017
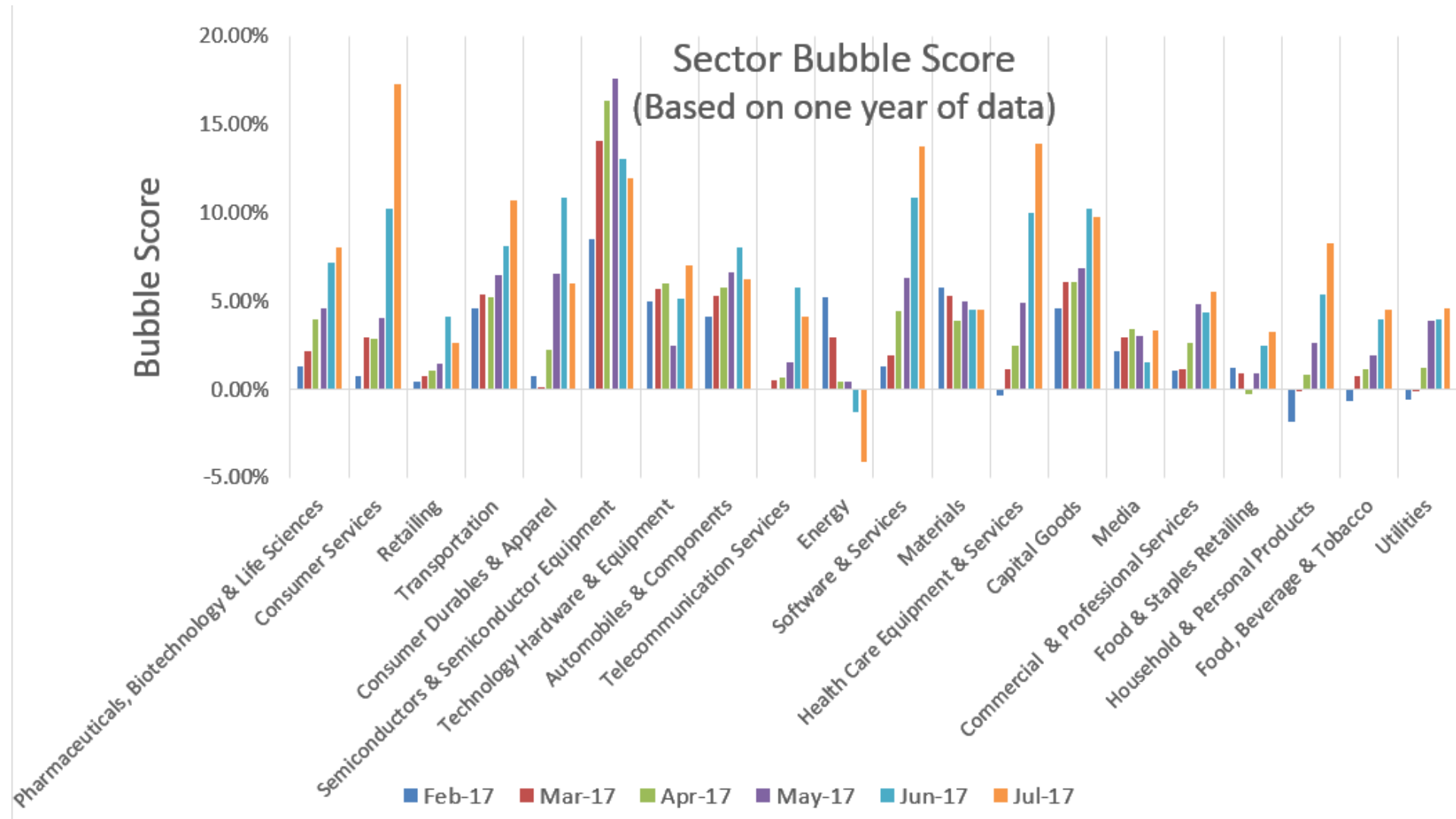
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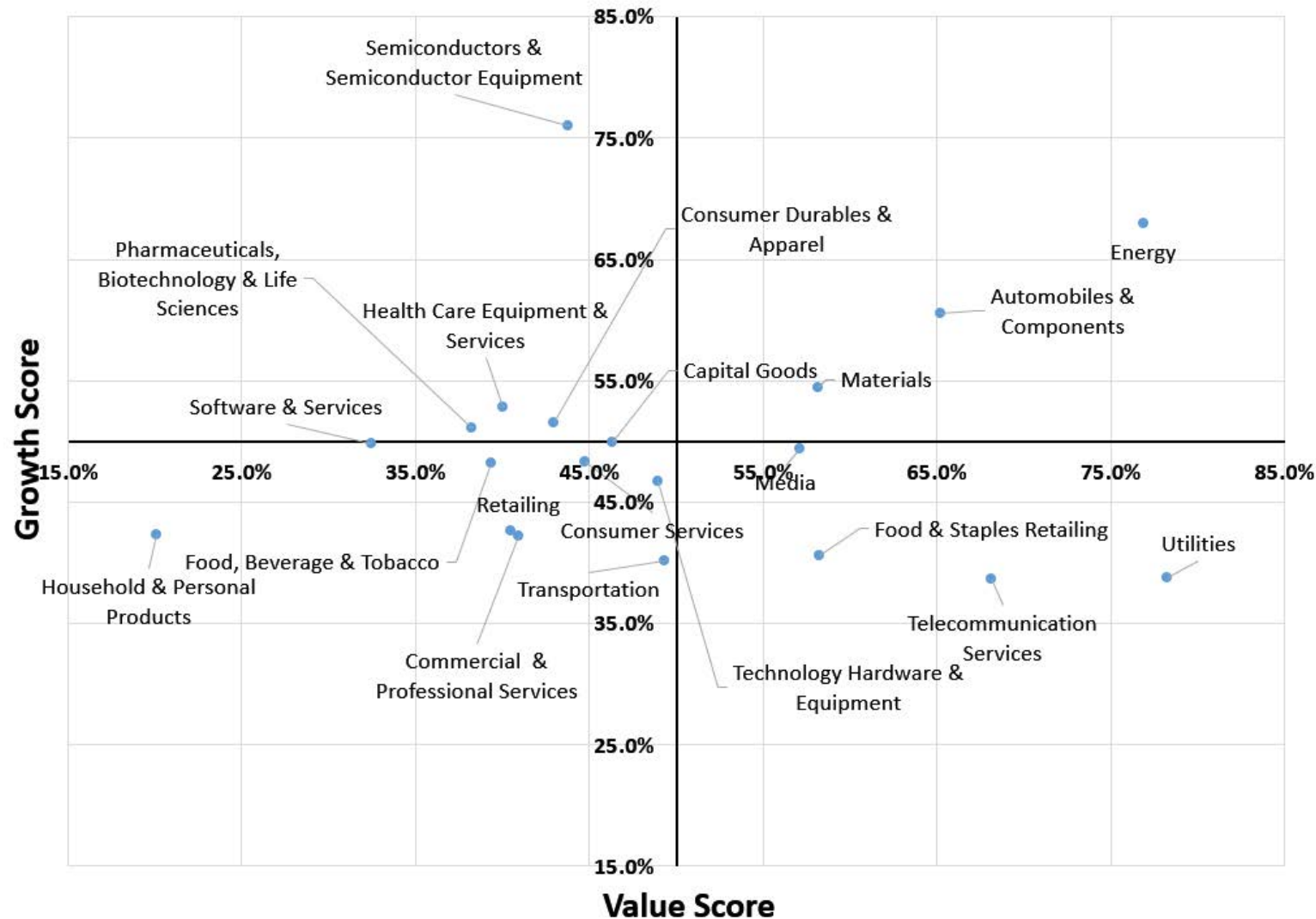# Global Bubble Status July 1st, 2017

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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.

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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.

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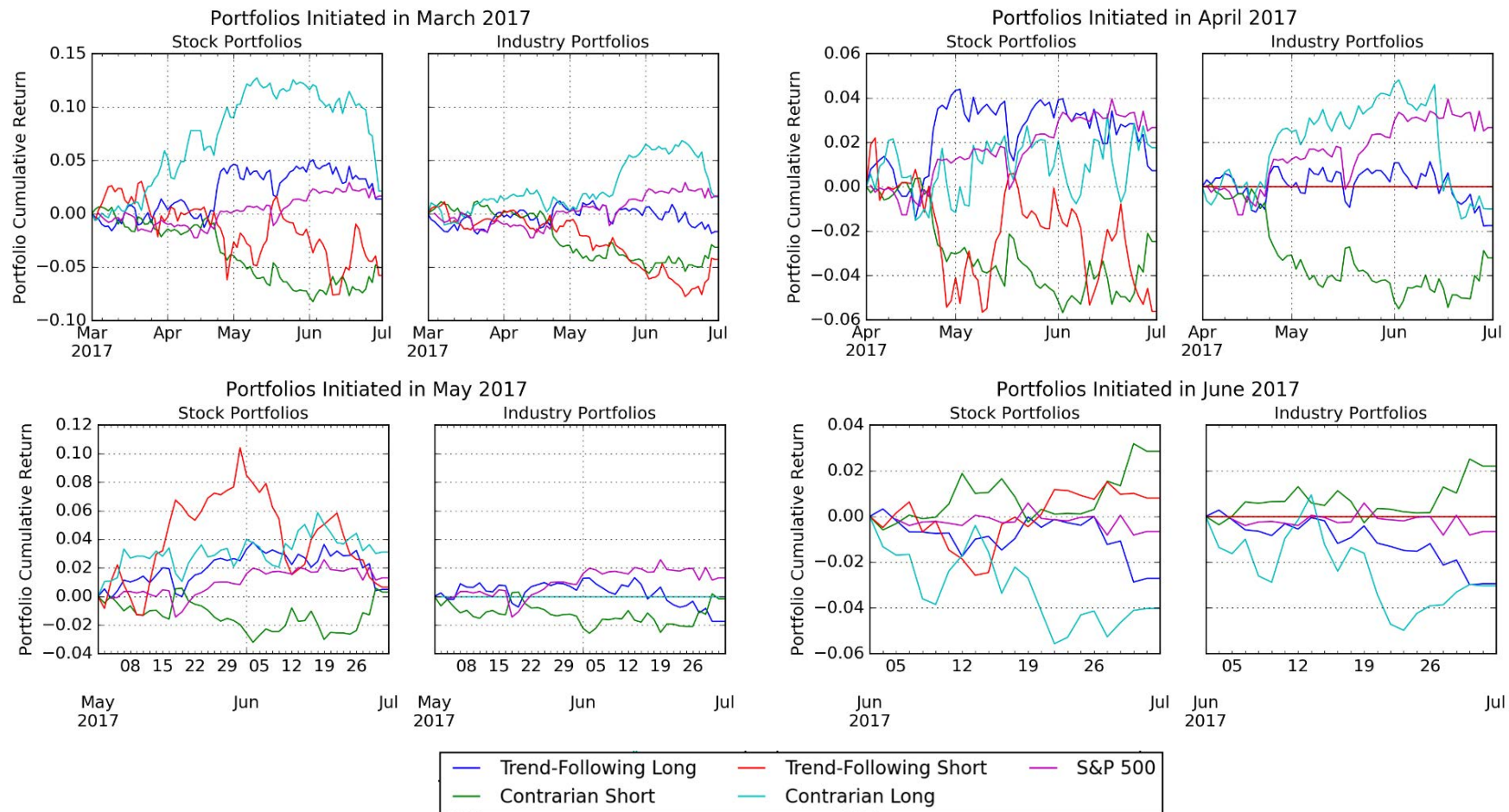
This month, we find that Long portfolios started to develop a drawdown in most portfolios initiated in March, April, May and June 2017. This reflects the stopping of the previously booming markets. Especially, the Contrarian Short portfolios rebounded in recent weeks. Contrarian Portfolios are more delicate 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.

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For information, see

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