

# The FCO Cockpit – Global Bubble Status Report

Peter Cauwels & Didier Sornette  
Chair of Entrepreneurial Risk

September 1st, 2015

# The FCO Cockpit – Global Bubble Status September 1st, 2015

## Main conclusion of this report:

So far, 2015 has shown a notable synchronicity in financial markets on a global scale and across all asset classes:

- In the first half, mainly between February and April, positive bubble warning signals were seen on a large scale. This pointed to a strong momentum in rising fixed income and equities markets;
- This period was followed by a correction and, logically, a drop in warning signals that was as sudden as its prior rise;
- Now, we mainly see negative bubble signals, most strikingly, the first negative bubble signals in fixed income indices since we started producing this report. This is indication of a strong momentum in decreasing fixed income and equities markets;

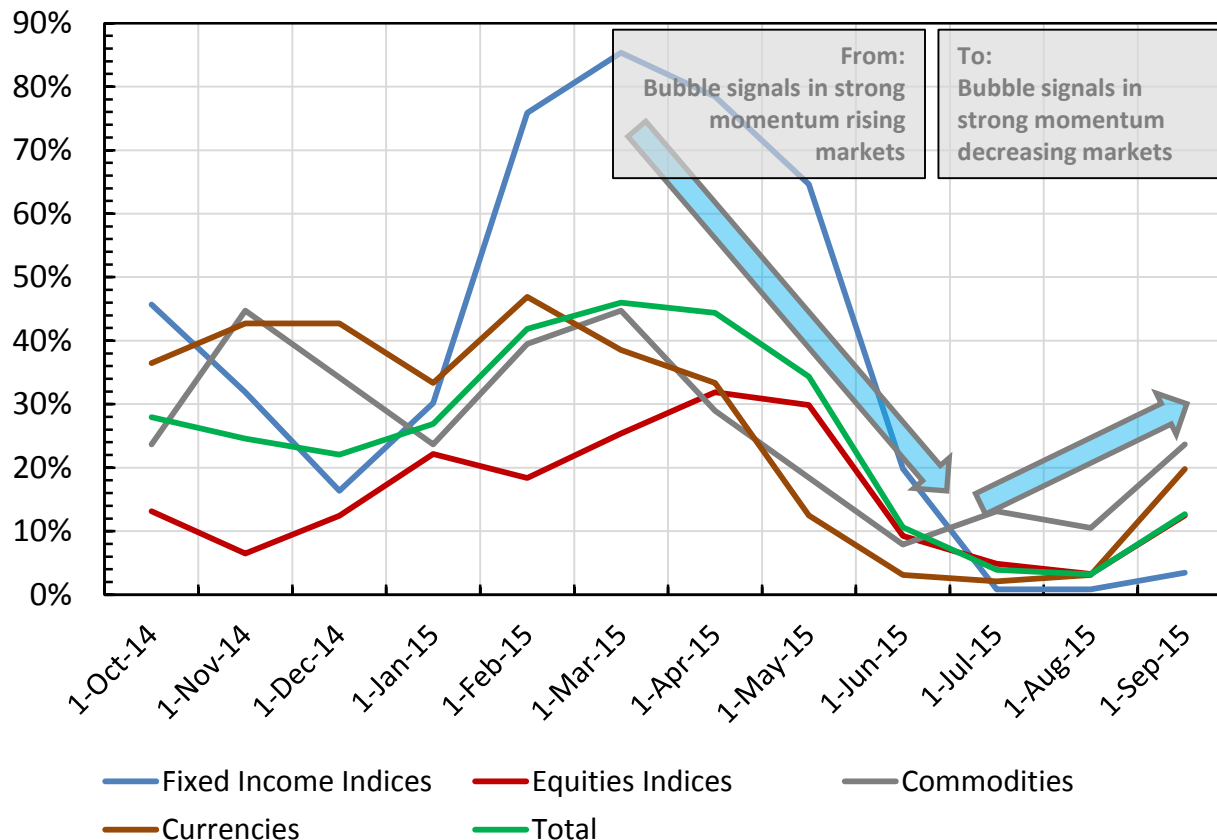
These are indications that we are shifting from high momentum rising markets, to high momentum decreasing markets.

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

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

# The FCO Cockpit – Global Bubble Status September 1st, 2015

**Bubble Fraction per asset class**



For a number of systematic assets and indices, we calculate the fraction that show bubble warning signals. This graph shows the historical evolution of this fraction for different asset classes.

Between February and April, positive bubble signals were observed on a broad scale across global markets. June and July, these faded away when the correction set in. Now we see the first negative bubble signals appearing across markets and asset classes.

**We are going through a regime shift from strong momentum rising markets to strong momentum decreasing markets.**

The table on the next slide gives the detailed numbers.

# The FCO Cockpit – Global Bubble Status September 1st, 2015

434 systemic assets are monitored

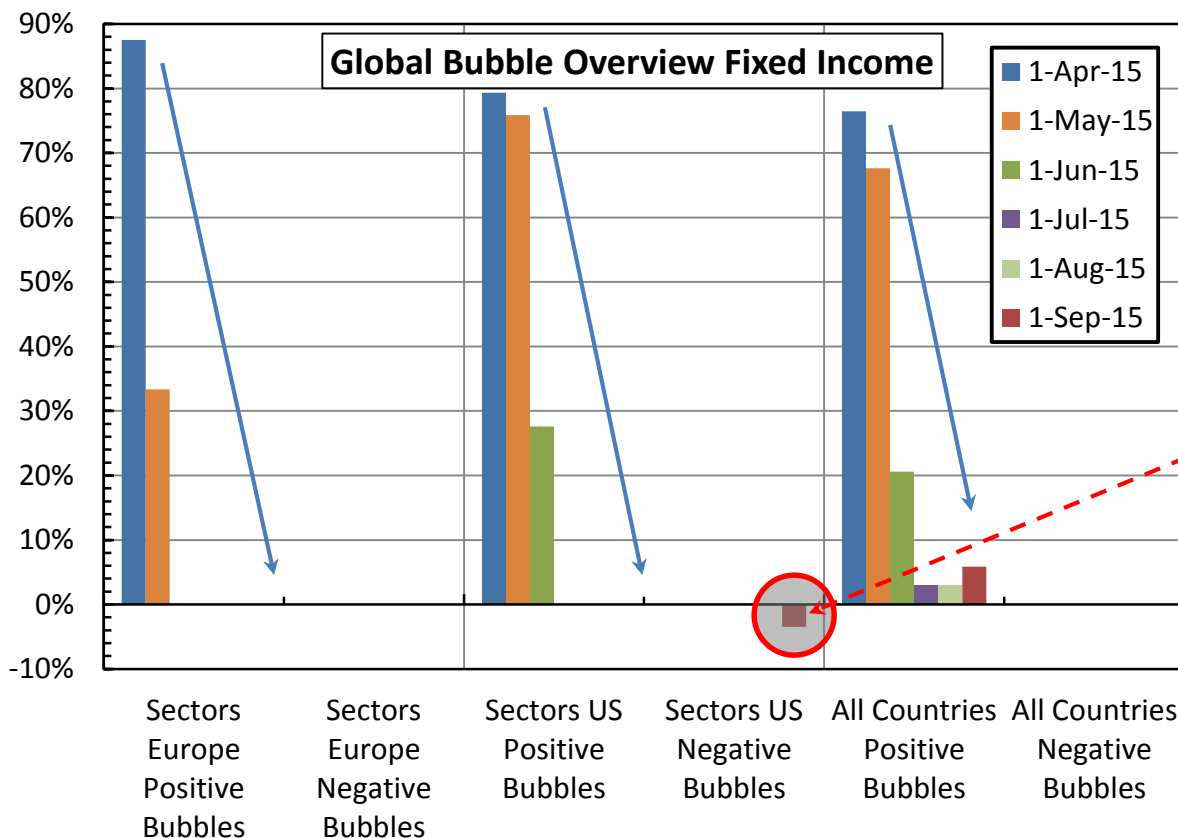
	# Assets	# Bubbles September 1st 2015	% Bubbles September 1st 2015	% Bubbles August 1st 2015	% Bubbles July 1st 2015	% Bubbles June 1st 2015	% Bubbles May 1st 2015	% Bubbles April 1st 2015	% Bubbles March 1st 2015	% Bubbles February 1st 2015	% Bubbles January 1st 2015
<b>Fixed Income Indices</b>	116	4	3%	1%	1%	20%	65%	78%	85%	76%	30%
<b>Government</b>	34	2	6%	3%	3%	21%	68%	76%	88%	82%	67%
<b>Corporate</b>	82	2	2%	0%	0%	20%	63%	79%	84%	73%	16%
<b>Equities Indices</b>	184	23	13%	3%	5%	9%	30%	32%	25%	18%	22%
<b>Country</b>	77	9	12%	0%	8%	17%	29%	32%	21%	21%	21%
<b>US-Sector</b>	63	11	17%	10%	3%	5%	10%	14%	21%	27%	38%
<b>EUR-Sector</b>	32	3	9%	0%	0%	0%	69%	78%	56%	3%	3%
<b>Special</b>	12	0	0%	0%	8%	8%	42%	33%	0%	0%	0%
<b>Commodities</b>	38	9	24%	11%	13%	8%	18%	29%	45%	39%	24%
<b>Currencies</b>	96	19	20%	3%	2%	3%	13%	33%	39%	47%	33%
<b>Total</b>	434	55	13%	3%	4%	11%	34%	44%	46%	42%	27%

# **The FCO Cockpit – Global Bubble Status September 1st, 2015**

## **Fixed Income**

# The FCO Cockpit – Global Bubble Status September 1st, 2015

## Asset Class – Fixed Income



April/May 2015, many, if not most, fixed income indices gave bubble warnings. This was followed by a correction and, logically, a drop in warning signals that has been as sudden as its prior rise.

Now, for the first time since we started our monthly report, we see negative bubble signals on fixed income indices. These are in USD Basic Materials and USD Basic Resources.

**In fixed income, there are indications that we are shifting from high momentum rising markets, to high momentum decreasing markets.**

# The FCO Cockpit – Global Bubble Status September 1st, 2015

## Asset Class – Fixed Income Indices

Fixed Income Country Indices	Yearly Return	DS LPPL Trust	DS LPPL Confidence
iBoxx Asia Taiwan Government Index	4.8%	24.9%	59.5%
iBoxx Asia India Government Index	13.4%	5.2%	15.3%

Fixed Income Sector Indices	Yearly Return	DS LPPL Trust	DS LPPL Confidence
iBoxx USD Basic Resources Index	-7.3%	5.8%	19.9%
iBoxx USD Basic Materials Index	-5.0%	5.1%	12.4%

Of the 116 analyzed fixed income time series, there are two country indices that show positive bubble signals, and, interestingly, for the first time we see two indices with negative bubble signals: USD Basic Resources and USD Basic Materials.

# The FCO Cockpit – Global Bubble Status September 1st, 2015

## Asset Class – Fixed Income Indices



For the first time we see two indices with negative bubble signals: USD Basic Resources and USD Basic Materials.



# The FCO Cockpit – Global Bubble Status September 1st, 2015

## Asset Class – Fixed Income Indices



# **The FCO Cockpit – Global Bubble Status September 1st, 2015**

## Equities

# The FCO Cockpit – Global Bubble Status September 1st, 2015



## Broad View:

This plot shows the performance of some major equity indices over the past two years (the time series are rebased to 100). Over this period we see US and European stocks at the same level, Japanese stocks outperforming, HK stocks underperforming.

Source: Thomson Reuters Eikon, Chair of Entrepreneurial Risk ETH Zurich

# The FCO Cockpit – Global Bubble Status September 1st, 2015



## Broad View:

This plot shows the performance of the same major equity indices year-to-date (the time series are rebased to 100). Over this period we see US and HK stocks underperforming and Japanese and European stocks outperforming.



# The FCO Cockpit – Global Bubble Status September 1st, 2015

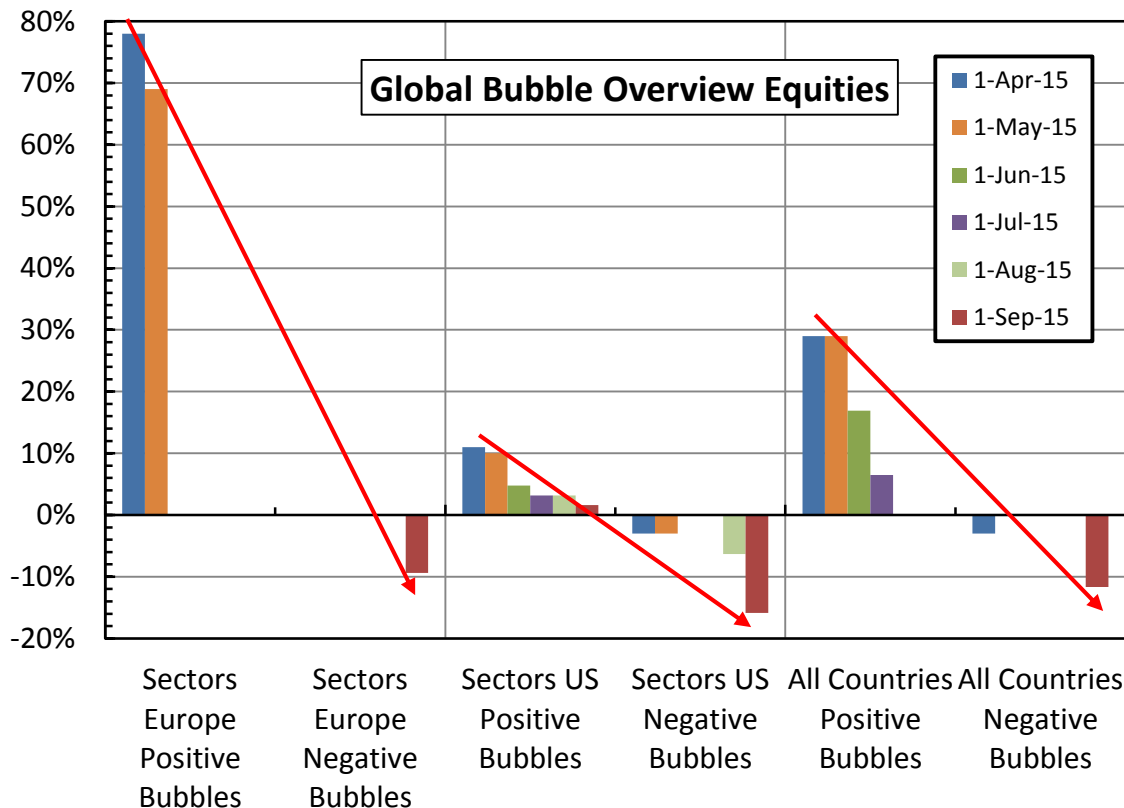


When looking at global Equities over the last year we see:

- Mainland Chinese stocks still outperforming, even after the recent crash;
- Hong Kong stocks very volatile with a large upswing in April followed by an equally large correction, now underperforming strongly -13%;
- US stocks going sideways;
- European stocks flat but volatile after their rally in the first quarter but still outperforming HK, US and Brazil;
- Brazilian stocks losing 24%.

# The FCO Cockpit – Global Bubble Status September 1st, 2015

## Equities



Bubble warning signals in equities have followed a similar path as in the fixed income asset class.

April/May 2015, many, if not most, indices gave bubble warnings. This was followed by a correction and, logically, a drop in warning signals that has been as sudden as its prior rise.

Now, we only seeing negative bubble signals

**These are indications that we are shifting from high momentum rising markets, to high momentum decreasing markets.**

# The FCO Cockpit – Global Bubble Status September 1st, 2015

## Asset Class – Equity Country Indices

Equities Country Indices	Yearly Return	DS LPPL Trust	DS LPPL Confidence	Country
<b>Positive Bubbles</b>				
None				
<b>Negative Bubbles</b>				
Taiwan SE Weighted Index	-15.0%	13.4%	14.2%	Taiwan
Jakarta SE Composite Index	-13.4%	12.8%	26.2%	Indonesia
Hang Seng Index	-12.6%	11.6%	7.1%	Hong Kong
SET Index	-12.5%	8.4%	30.2%	Thailand
EGX 30 Index	-25.3%	8.0%	26.2%	Egypt
Sao Paulo SE Bovespa Index	-23.1%	6.8%	7.4%	Brazil
FTSE Straits Times Index	-11.2%	6.2%	21.0%	Singapore
TSX-Toronto Stock Exchange 300 Composite Index	-11.3%	5.5%	10.9%	Canada
FTSE Bursa Malaysia KLCI Index	-13.6%	5.0%	25.4%	Malaysia

For country indices in equities, there are no positive bubble signals and the number of observed negative bubble signals is rising. This is an indication of a strong shift in momentum. The effect is clearly observed in emerging markets indices.

# The FCO Cockpit – Global Bubble Status September 1st, 2015

## Asset Class – Equities Country Indices



For country indices in equities, there are no positive bubble signals and the number of observed negative bubble signals is rising. This is an indication of a strong shift in momentum.

The effect is clearly observed in emerging markets and/or commodities exporting countries: Taiwan (orange), Indonesia (purple), Thailand (green), Singapore (blue), Malaysia (red) and Canada (yellow).

In grey, the Reuters Commodity Index is added for comparison.



# The FCO Cockpit – Global Bubble Status September 1st, 2015

## Asset Class – Equity Sectors

Equities US Sector Indices	Yearly Return	DS LPPL Trust	DS LPPL Confidence
<b>Positive Bubbles</b>			
S&P 500 Internet&Catalog Retail	37%	16%	38%
<b>Negative Bubbles</b>			
S&P 500 Road & Rail	-18%	21%	39%
S&P 500 Paper& Forest Products	-10%	12%	24%
S&P 500 Automobiles	-18%	10%	19%
S&P 500 Oil, Gas & Cnsmbl Fuel	-32%	9%	29%
S&P 500 Construction& Eng	-34%	9%	18%
S&P 500 Metals & Mining	-49%	8%	23%
Equities EUR Sector Indices	Yearly Return	DS LPPL Trust	DS LPPL Confidence
<b>Positive Bubbles</b>			
None			
<b>Negative Bubbles</b>			
STOXX Europe 600 Basic Resources EUR Price Index	-27%	11%	19%
STOXX Europe 600 Automobiles & Parts EUR Price Index	11%	6%	20%

The dynamics in equity sectors paint a clear picture:

- Cyclical stocks show clear negative bubble warning signals. There is strong negative momentum in road, rail, auto, construction and commodity related stocks (oil, gas, fuel, paper & forest products, metals & mining);
- There is only one sector in the US and in Europe that is persistent and still shows a positive bubble warning signal, that is the Internet and Catalog Retail. This index holds five stocks: Amazon, TripAdvisor, PriceLine, Expedia and Netflix.

# The FCO Cockpit – Global Bubble Status September 1st, 2015

## Asset Class – Equities Country Indices



Cyclical stocks show clear negative bubble warning signals.

This graph shows the European auto sector.

# The FCO Cockpit – Global Bubble Status September 1st, 2015



In our FCO Cockpit report of May, we warned that Chinese equities were in bubble territory, that the price path followed was not sustainable and a correction was due.

In the meantime, we have seen the textbook example of a crash.

Our research team at the Chair of Entrepreneurial Risk studied the most recent bubble and crash in Chinese stocks. Our findings will be published in the September Issue of the Journal of Investment Strategies in a paper called *“Real-time prediction and post-mortem analysis of the Shanghai 2015 stock market bubble and crash”*.

# The FCO Cockpit – Global Bubble Status September 1st, 2015

## Asset Class – Equities Single Stocks

Next to the 185 global sector and country equities indices, we do a bubble analysis on single stocks taking all S&P 500 and Stoxx Europe 600 constituents with a market cap higher than \$ 50 bn, and all Hang Seng and Nikkei constituents with a market cap higher than \$ 15 bn.

In total, we analyse 219 stocks, 37 of these show bubble signals (16 negative and 21 positive bubbles). Last month 23 stocks gave clear signals.

So, in single stocks we see the same as in the indices, positive bubble warning signals are waning across the board, but the number of negative bubble signals is rising on a global scale.

# The FCO Cockpit – Global Bubble Status September 1st, 2015

Single Stocks	Yearly Return	DS LPPL Trust	DS LPPL Confidence	Sector	Country
<b>Positive Bubbles</b>					
Fast Retailing Co Ltd	56%	27%	36%	Retailing	JP
Amazon.com Inc	52%	14%	37%	Retailing	US
Starbucks Corp	43%	27%	19%	Consumer Services	US
Nike Inc	43%	20%	31%	Consumer Durables & Apparel	US
NTT Docomo Inc	40%	17%	46%	Telecommunication Services	JP
Chugai Pharmaceutical Co Ltd	38%	15%	40%	Pharmaceuticals, Biotechnology & Life Sciences	JP
Nippon Telegraph and Telephone Corp	32%	23%	18%	Telecommunication Services	JP
Accenture PLC	18%	11%	26%	Software & Services	US
<b>Negative Bubbles</b>					
Volkswagen AG	0%	15%	11%	Automobiles & Components	EU
Bayerische Motoren Werke AG	-7%	18%	14%	Automobiles & Components	EU
Union Pacific Corp	-17%	13%	23%	Transportation	US
E I du Pont de Nemours and Co	-18%	15%	20%	Materials	US
Chevron Corp	-38%	11%	42%	Energy	US
China Shenhua Energy Co Ltd	-39%	14%	28%	Energy	HK



# The FCO Cockpit – Global Bubble Status September 1st, 2015

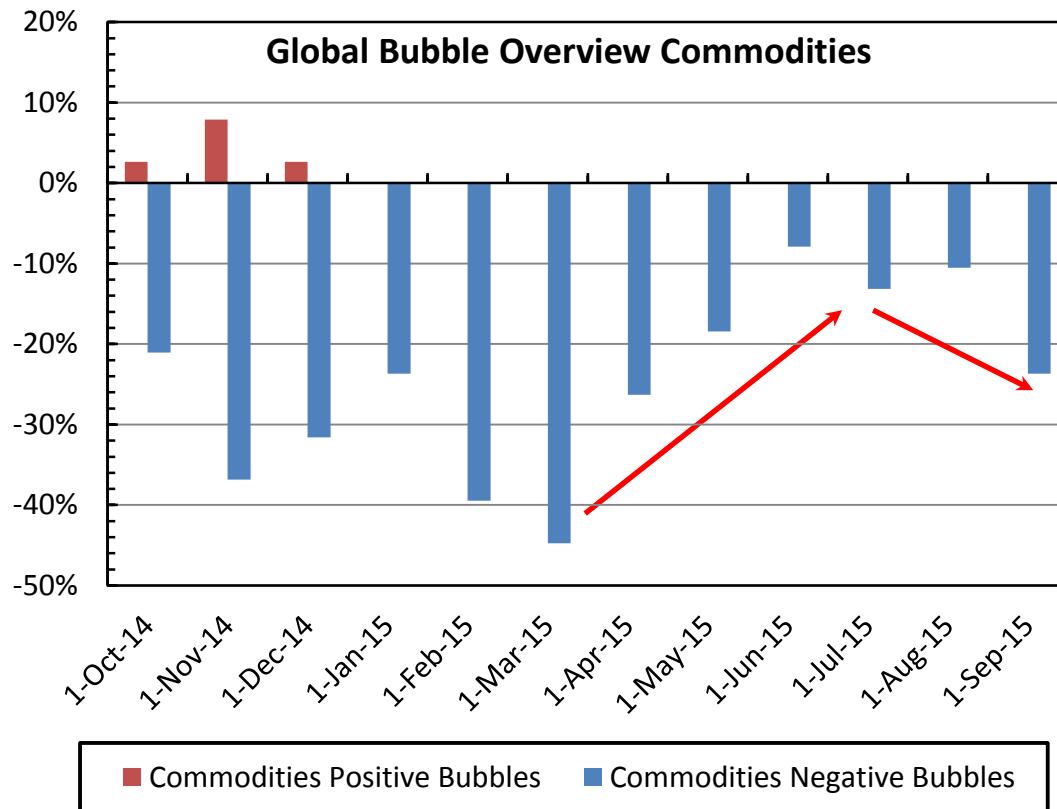
## Asset Class – Equities Single Stocks



# **The FCO Cockpit – Global Bubble Status September 1st, 2015**

## **Commodities**

# The FCO Cockpit – Global Bubble Status September 1st, 2015



After a relaxation period in Q2-2015 we see negative bubble signals increasing again, especially in industrial metals and oil.



# The FCO Cockpit – Global Bubble Status September 1st, 2015

Commodities	Yearly Return	DS LPPL Trust	DS LPPL Confidence
<b><i>Negative Bubbles</i></b>			
Platinum ER Index	-29%	19%	28%
Nickel ER Index	-47%	16%	43%
Sugar ER Index	-40%	13%	40%
Palladium ER Index	-35%	12%	14%
Metals ER Index	-23%	9%	22%
Aluminum ER Index	-27%	9%	36%
Brent Crude ER Index	-57%	7%	9%
Indtr Mtls ER Index	-28%	6%	27%
Crude Oil ER Index	-58%	5%	5%

After a relaxation period in Q2-2015 we see negative bubble signals increasing again, especially in industrial metals and oil.

# **The FCO Cockpit – Global Bubble Status September 1st, 2015**

## **Currencies**

# The FCO Cockpit – Global Bubble Status September 1st, 2015

FX	Yearly Return	DS LPPL Trust	DS LPPL Confidence
Euro/Australian Dollar	10%	7%	16%
Euro/Brazilian Real	27%	7%	33%
Euro/Canadian Dollar	3%	10%	24%
Euro/Chilean Peso	0%	7%	35%
Euro/Russian Rouble	33%	11%	17%
US Dollar/Argentine Peso	11%	35%	9%
US Dollar/Chilean Peso	18%	12%	34%
US Dollar/Indonesian Rupiah	20%	17%	51%
US Dollar/Japanese Yen	17%	7%	7%
US Dollar/Korean Won	16%	11%	31%
US Dollar/Mexican Peso	28%	15%	39%
US Dollar/Russian Rouble	76%	12%	16%
US Dollar/Singapore Dollar	13%	7%	10%
US Dollar/South African Rand	25%	6%	33%
US Dollar/Taiwan Dollar	8%	8%	11%

The results on currencies confirm the bubble analysis on country equity indices and commodities. Currencies of emerging markets and commodities exporters are being hit.

# The FCO Cockpit – Global Bubble Status September 1st, 2015

## Conclusion

# The FCO Cockpit – Global Bubble Status September 1st, 2015

## Fixed income and equities:

April/May 2015, many, if not most, fixed income and equity indices gave bubble warnings. This was followed by a correction and, logically, a drop in warning signals that has been as sudden as its prior rise. Now, for the first time since we started our monthly report, we see negative bubble signals on fixed income indices. These are in USD Basic Materials and USD Basic Resources.

Also in equity indices and single stocks, we see an increase in negative bubble warning signals:

- Cyclical stocks show clear negative bubble warning signals. There is strong negative momentum in road, rail, auto, construction and commodity related stocks (oil, gas, fuel, paper & forest products, metals & mining);
- There is only one sector in the US and in Europe that is persistent and still shows a positive bubble warning signal, that is the Internet and Catalog Retail. This index holds five stocks: Amazon, TripAdvisor, PriceLine, Expedia and Netflix.

These are indications that we are shifting from high momentum rising markets, to high momentum decreasing markets.

# The FCO Cockpit – Global Bubble Status September 1st, 2015

## Commodities

After a relaxation period in Q2-2015 we see negative bubble signals increasing again, especially in industrial metals and oil.

## Currencies

The results on currencies confirm the bubble analysis on country equity indices and commodities. Currencies of emerging markets and commodities exporters are being hit.