

Technical Analysis

Weekly Comment
Global

Michael Riesner
 michael.riesner@ubs.com
 +41-44-239 1676

Marc Müller
 marc.mueller@ubs.com
 +41-44-239 1789

30/01/2018

SPX Pullback Into February ... German Bund on the Edge!

- US Trading:** Last week we saw US mega caps further overshooting whilst the broader market traded water, leaving the technical picture in the US unchanged. As we said last week, with the parabolic shape of the January rally we have all the signs that mega caps are trading in a classic blow-off phase. The SPX and DJI are record overbought on weekly and daily time frames, whereas the momentum in the broader market continues to deteriorate. In addition to the divergences in our broader market measures, we see initial signs of deteriorating breadth in the SPX. Together with the rising VIX index and a fresh momentum short signal we reiterate our last week's call and continue to see the SPX vulnerable for a short pullback into February before starting its next bounce higher into later Q1, where we continue to expect new index highs.
- With last week's extension on the upside we have a new short-term support at 2825. On the upside, we have 2900 as a round number as a next overshooting target, whereas a break of 2825 would be short-term negative and imply a pullback towards 2770. Into later Q1/early Q2, we still see 3040 as a potential major target projection. On the sector front, the momentum in extreme overbought late cyclicals starts deteriorating, where short-term we expect a pullback. However, without any divergence in our indicator work and/or any distributive patterns forming, the bull cycles in steel, miners, energy and banks are not complete, so where weakness into February is still an opportunity to buy/add for aggressive traders, whereas a bounce in the oversold defensives is still a sell, and where we would also not chase the vertical rally in healthcare.
- US Strategy:** With the parabolic shape of the January rally, multi-decade highs in our sentiment studies, and economic indicators as well as US mega caps record overbought on several time frames, we have all the signs that the 2016 bull cycle has reached its ultimate blow-off phase. However, given the recent strong momentum in the US and Emerging Markets and as long as we do not have any evidence of a distributive/regular tactical top forming, it is too early to call a major top. So despite the risk of seeing short-term pullbacks and initial market volatility, we are sticking to our base case scenario where late Q1/early Q2 remains our preferred and long-standing time window for a major top of the wave 5 2016 bull cycle.
- European Trading:** With last week's initial pullback, our view on Europe remains unchanged. Although continuing to underperform the US, as long as the Euro Stoxx trades above its early January low at 3469, the medium-term patterns in Europe remain constructive, where financially sensitive markets (FTSE MIB, CAC) are outperforming and testing big breakout levels (IBEX has broken its 2017 down trend), whereas defensive markets and the more cyclical driven indices (DAX, OMX) are latently underperforming, and worst case already trading in a distributive process. With last week's initial pullback we see Europe vulnerable for more short-term weakness into February but where we clearly expect the Euro Stoxx forming a higher low (versus its early January low) as the setup for the next and real attempt to test and break its November top at 3709, which would open the door towards 3817. Sector-wise we remain bullish banks and cyclicals whereas defensives should continue to underperform trend-wise into later Q1/early Q2.
- Inter Market Analysis:** The US dollar remains weak and trades in wave 3 of larger wave 5. On a very short-term basis the DXY is oversold and can bounce but without any momentum divergence in our daily indicator work, the USD remains bearish biased into later Q1, which is still our preferred time window for a major low and subsequent US dollar comeback. Bonds remain on top of the agenda. US 10-year yields have broken their December 2016 top at 2.60% and the German Bund is sitting on the edge at 159!! On a short-term basis, bond markets are oversold and we can see a bounce but we continue to see higher yields into later Q1 and into Q2 as a source for higher cross asset volatility. In gold, our suggested short-term pullback (higher yields are weighing) is underway, which should last into February but we continue to expect a higher low in gold at \$1307/\$1300 so we remain bullish gold/metals complex and expect the break of its key resistance at \$1375 into early summer.
- Asian Corner:** Following the pattern of US mega caps, we saw in most of Asian/EM markets a nearly vertical rally in the first 4 weeks of 2018. The vertical rallies in the Hang Seng, HSCEI and other Asian markets are exhaustive and have the character of a classic blow-off phase, implying that the ultimate end game of the 2016 bull cycle has started. However, similar to the US, as long as we do not see any bigger distributive patterns it is too early to get bearish or call a top. So after a potential short-term pullback into February it's likely to see more gains into later Q1 but where we see a high likelihood for EMs to move into a major top (4-year cycle peak) and start wave A of a larger correction cycle. We would use strength to take profits!

US Equity Market Update:

Chart 1.) S&P-500 Daily Chart



Chart 2.) S&P-500 with NYSE McClellan Oscillator

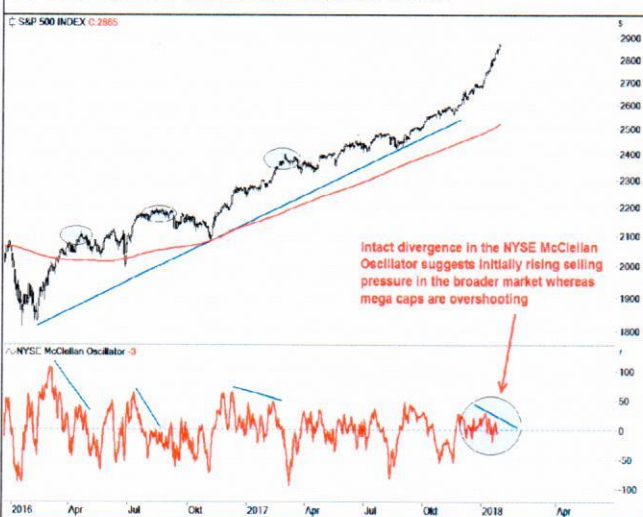


Chart 3.) S&P-500 with VIX Index



Increasing Divergences

In the SPX and DJI, the rally of the first 4 trading weeks was nearly vertical. Together with the vertical rallies in a number of key sectors (particularly late cyclical themes) we have clear evidence that US mega caps are trading in a classic blow-off phase, which is normally a pattern we see in the ultimate end phase of a bull market. As we said last week, with the SPX and DJI being record overbought on the daily and weekly time frame it is generally very likely to see the US market moving into a major H1 top, which we would see as the beginning of a longer lasting (multi-month) and significant corrective cycle.

Last week we saw US mega caps further overshooting, whereas the broader market traded water, which leaves the technical picture in the US unchanged to last week. In the broader market the momentum has been already weak, where we have intact divergences on the momentum side and in our breadth work. In addition to these divergences we also now get initial signs of deteriorating breadth in the SPX, where (despite the new SPX high) the number of new highs has been deteriorating since last week. Together with the rising VIX index (which is normally a leading indicator for minimum a bigger tactical top) and an intact divergence in our fast momentum work, we still see the SPX short-term toppish. We reiterate last week's call and continue to see the SPX vulnerable for a short pullback into February before starting its next bounce higher into later Q1, where we still expect to see new index highs.

Conclusion: With last week's extension on the upside we have a new short-term support at 2825 in the SPX, whereas the key trading support in the Russell-2000 is unchanged at 1571. On the upside, we have 2900 as a round number as a next overshooting target, whereas a break of 2825 would be short-term negative and imply a pullback towards 2770 into February. Into later Q1/early Q2 we still see 3040 as a potential major target projection.

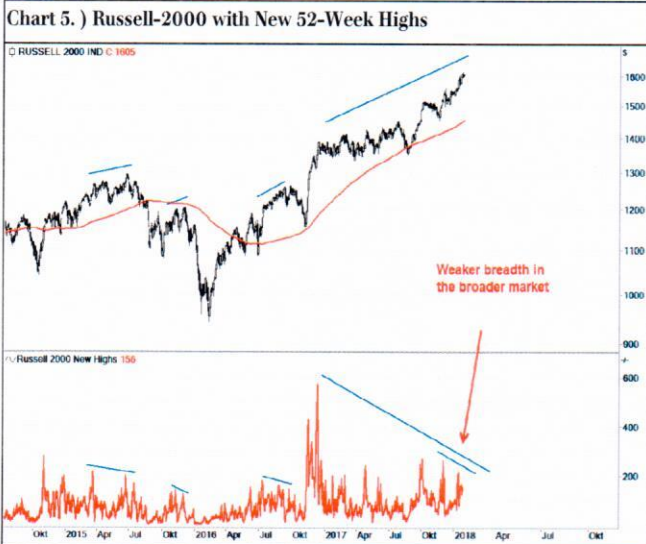
Again, it is important to understand that **without any distributive pattern and/or any top formation forming, it is definitely too early to get bearish since after the high momentum January rally neither the SPX nor the DJI will just fall apart.** On the one hand (as we said in our 2018 strategy report), with the parabolic moves of the last few months, we clearly see the increasing risk of a sharp reversal top in 2018 (without seeing a multi-month distribution phase) but at least on a short-term basis we should see minimum some kind of top formation forming, which would still need several weeks and leaves Q1/early Q2 as our most preferred timing for a major top of the 2016 wave 5 bull cycle.

US Equity Market Update:

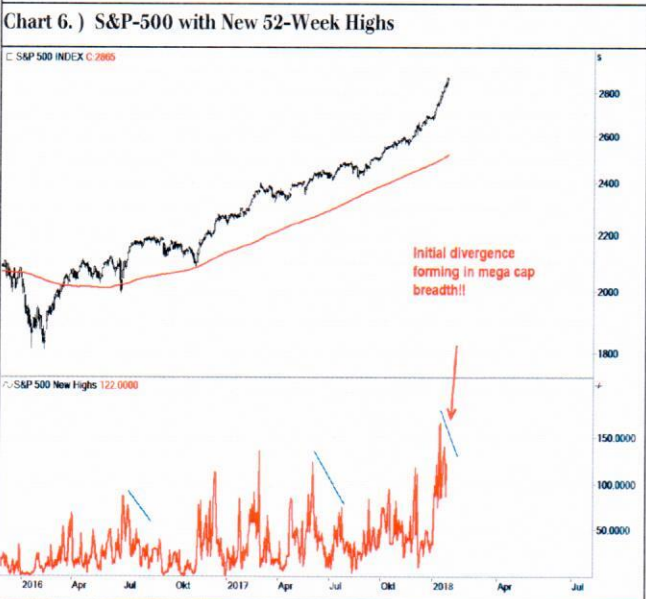


In the broader US market the January momentum was significantly weaker as in mega caps, where a major bearish divergence in our daily trend work (which is starting to roll over) and a rising wedge are tactically toppish for the Russell-2000.

Trading support is at 1596. Key support is unchanged at 1571!



As a reflection of the of the weaker momentum in price indicators, we have an intact divergence in our breadth indicators where the number of new 52-week highs was weak against the new all-time high the Russel posted into January.



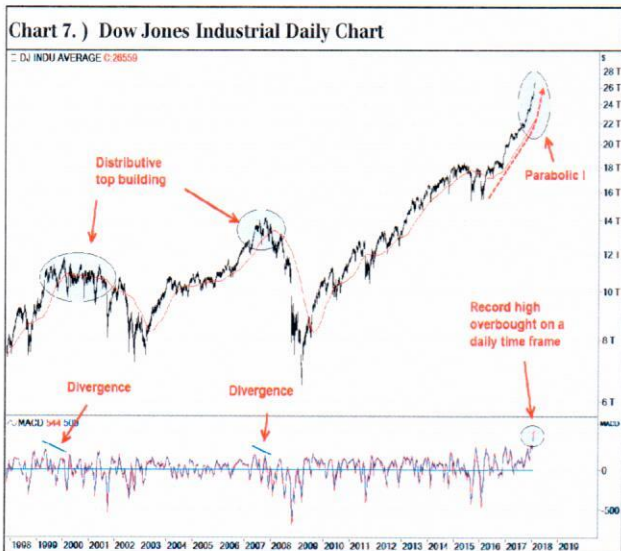
The January rally in mega caps was based on very high momentum and good breadth. As we said last week, no bull market ends with this kind of momentum spike in breadth. However, on a very short-term basis the number of new 52-highs has been deteriorating last week, which is critical on a very short-term basis and suggests the market is vulnerable for a pullback.

US Equity Strategy Update:

Distributive Top or Sharp Reversal?

Last year and in our 2018 strategy we discussed the 2 major top patterns that we normally see at major market peaks. It is either a sharp V-shape top, without forming a classic top building pattern or it is a larger distributive pattern, which brings us the classic top formations such as double tops or H&S tops - which can take several months up to more than one year. Again, since 1900 we have seen 20 bear markets (defined by a correction of 20% and more), where in 11 cases we saw a regular and distributive top building phase, and in 9 cases just a sharp market reversal, such as in 1929, 1973 and 1998, whereas in the last 20 years we had more the distributive versions with the top in 2000 or 2007/2008.

In our 2018 strategy report we said that with an increasing number of parabolic charts in global equities we see an increasing likelihood of moving into a classic blow off top followed by a sharp reversal instead of seeing a several months lasting distributive market top forming as the starting point of our suggested A-B-C correction cycle. Our view is unchanged. With the recent rally we have clear evidence that US mega caps are trading in a classic blow-off phase, which is a pattern we see in the ultimate end phase of a bull market. The SPX and DJI are record overbought on daily and weekly time frames where it's generally very likely to see the market topping out in H1, and which we would see as the beginning of a multi-month and significant corrective cycle. So although it is not likely to see a larger and longer lasting distribution we should minimum see a short-term top building pattern, which can best case still make new highs and form classic none confirmations in our key indicators or we should see minimum the version of a lower high, which is a very common top pattern in parabolic moves but which still produces a double top as we had in BITCOINS in early January and this was also how the US market topped in 1987. **Conclusion: It is too early to get bearish!**



US Equity Market Update:

Chart 11.) US Banking Index (BKX) Daily Chart



Cyclicals Overbought

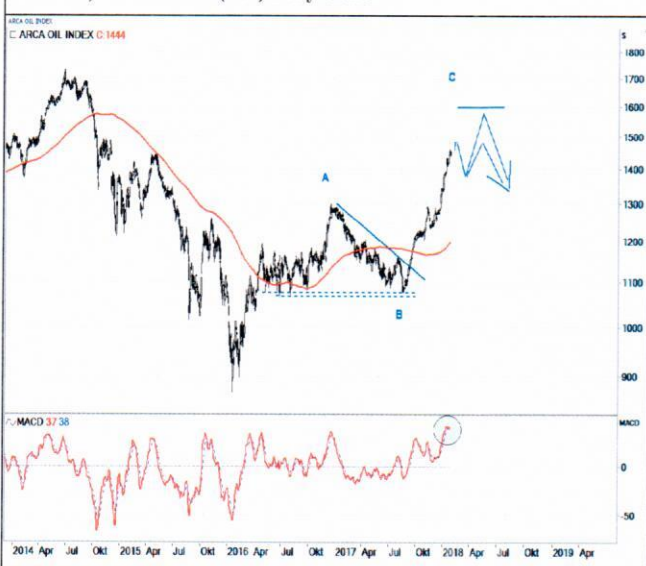
On the sector front, the momentum in extreme overbought cyclicals starts deteriorating, where short-term we expect a pullback in financials, transport, housing and late cyclical steel, miners and energy complex. However, without any divergence in our indicator work and/or any distributive patterns forming, the bull cycles in steel, miners, energy and banks are not complete, so where weakness into February is still an opportunity to buy/add for aggressive traders, whereas a bounce in the oversold defensives is still a sell.

Chart 12.) Dow Jones Transport Daily Chart



The November rally in transport has been impulsive where tactically the DJT is overbought. With the current reversal our daily trend indicators have turned short, which is short-term negative and implies more weakness into February. However, from a pattern standpoint we think a wave 5 is missing to complete the September bull cycle, which implies a low momentum high into later Q1/early Q2 before we can see a more significant correction cycle starting.

Chart 15.) US Oil Index (XOI) Daily Chart



Our call on late cyclical sectors is unchanged. Energy stocks, steel and miners have reached overbought extremes. In steel and the mining complex we saw last week clearly losing momentum, where with yesterday's reversal we see these sectors vulnerable for a short-term pullback into February before starting its next leg higher.

Trend wise we remain bullish late cyclical themes into later Q1/early Q2. Strategically, oil stocks are trading in wave C, which implies that oil stocks are on the way into a major top!!

US Equity Market Update:

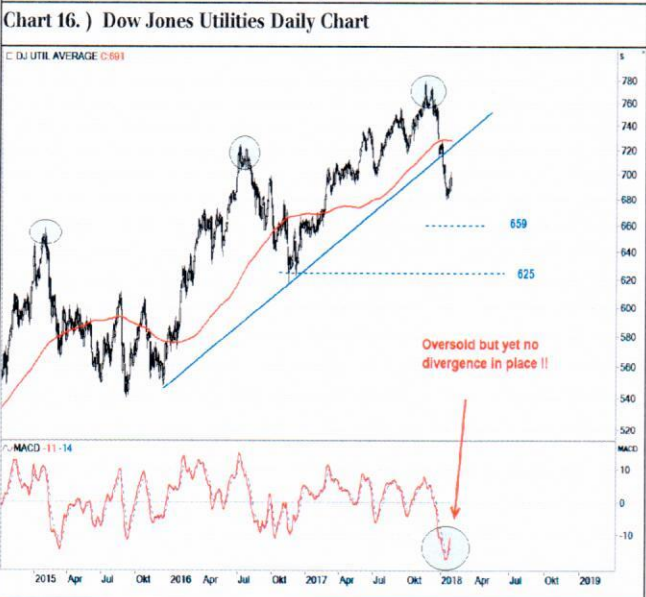


Given where we think we are in terms of maturity of the 2016 bull cycle, we currently see at least in initial themes a very classic sector picture. Whereas late cyclical sectors have been outperforming aggressively we see initial relative weakness in early cyclical semiconductors. In absolute terms the SOX index trades in wave 5 and with the momentum divergences we see the sector vulnerable for a pullback into February. More important is the relative picture, where the SOX index has started to underperform in December and where **the SOX is currently testing its 2016 relative outperformer trend versus the SPX. If this trend breaks (which we think is just a question of time), we have another very important piece of evidence that also in the SPX a major top shouldn't be too far away.**



Housing is one of the key sectors where we have a higher probability that a more important top is already in (where interest rates are further weighing) or at least forming. With the current sharp reversal, we get a fresh short signal in our daily trend work but in this case it completes a major divergence, which is normally a high probability pattern for a more important top.

We would use bounces to take profits/sell.



On the other hand we have the utilities sector, where the December reversal (which completed a classic double top) we saw and continue to see as a major reversal but where tactically the sector is increasingly oversold. As last week suggested, with a market pullback into February we can see the DJU bouncing but with expecting further rising rates on the macro side we remain latently bearish utilities and expect also other defensives sectors to be vulnerable for more relative undershooting into later Q1/early Q2.

Inter Market Update:

US Dollar Tactically Oversold ... Gold Pulling Back

The underlying trend and therefore our core views on the macro side are unchanged. In FX the US dollar remains under pressure. With the early January break down, and on track with our pre-Christmas calls, the DXY has finally broken its September low at 91, which opens the door towards our initial undershooting target of 88. Generally, with the new break down we have now divergences forming in our monthly and weekly momentum, which confirms the DXY trades in wave 5 of a larger degree, and where a major tactical bottom should be not far. Having said that, tactically, with the impulsive bear move from its December trading high, we see the DXY trading in wave 3 of larger wave 5, where on a very short-term basis and with our trend work hitting oversold extremes the USD is clearly oversold. So on a short-term basis the DXY can bounce but without any bigger momentum divergence in our daily indicator work it's too early to call or anticipate a major US dollar bottom. So despite expecting a bounce into first half February we remain bearish biased into later Q1, which is still our preferred time window for a major US dollar low, which we expect to be the basis of a major and longer lasting US dollar comeback into later 2018.

The EURUSD has reached the lower end of our 1.24 to 1.26 target range of the wave 5 rally from its early November bottom. On a very short-term basis we can see a pullback (support 1.22) but following our US dollar call we can say that there is still something missing on the upside in the EUR. A break of 1.26 would open the door towards a test of the long-term downtrend from its 2008 structural top at around 1.28.

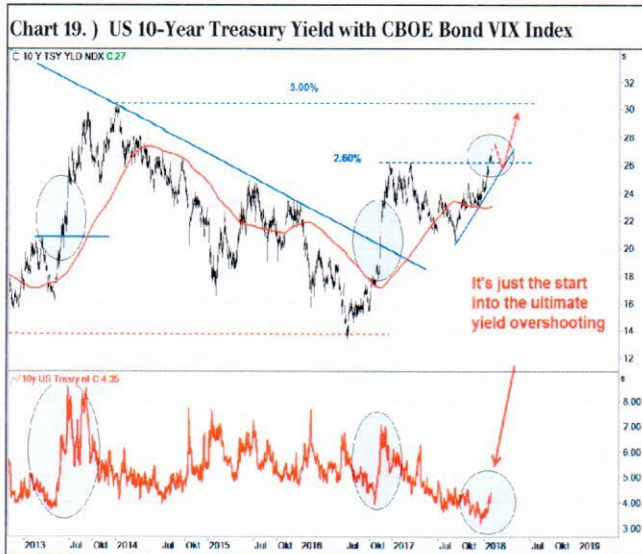


Gold pulling back into February

Last week, and after the aggressive rally of the last few weeks, we highlighted gold is increasingly overbought. Together with heading into strong resistance we said that a failure to break \$1375 would not really surprise, and where from a cyclical aspect we favour a pullback into February before seeing the real attempt to break its \$1375 key breakout resistance.

Last week's initial reversal is in our view minimum the start of a short-term top building process (a final marginal high we do not rule out) where at the end of the day we should see our suggested pullback into deeper February but where we clearly expect gold forming a higher low at \$1307/\$1300 to start a new bounce attempt. So despite our short-term pullback calls we remain bullish gold/metals complex and expect the break of its key resistance at \$1375 into early summer.

Inter Market Update:



Bonds sitting on the edge!!

Bonds remain on top of the agenda and as we said last week, from a macro perspective, a sustainable break of the December high at 2.60% would be the very obvious wake-up call for expecting a significant move higher in yields, which we saw and continue to see as the trigger for significant higher cross-asset volatility and at which point we expect interest-sensitive assets to start selling off significantly.

Last week, US 10-year yields have broken their December 2016 top at 2.60% and in Europe bonds remain also under pressure, where particularly the German Bund is sitting on the edge with its very obvious key support at 159!!

Generally, from a macro perspective, yesterday and overnight, we got a first impression of what we can see if yields really overshoot accompanied by a significant spike in bond volatility, which is what has in our view just started. Yesterday, together with bonds selling off, the SPX sold off, gold declined and in Asia Emerging Markets were under pressure today.

Tactically, on a very short-term basis, bond markets are oversold and we can see a bounce but with the impulsive price structure of the recent decline in bond futures and taking into account the patterns in global bond markets as well as the still relatively low absolute level of bond volatility, we would see any bounce just limited in price and time. Our core is unchanged to see further rising yields into later Q1 and more likely into Q2, and with this move it's just a question of time to see significant higher cross asset volatility.

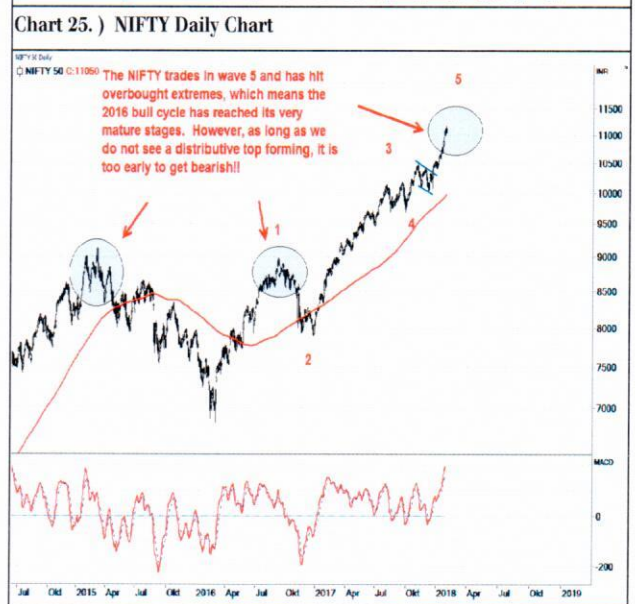
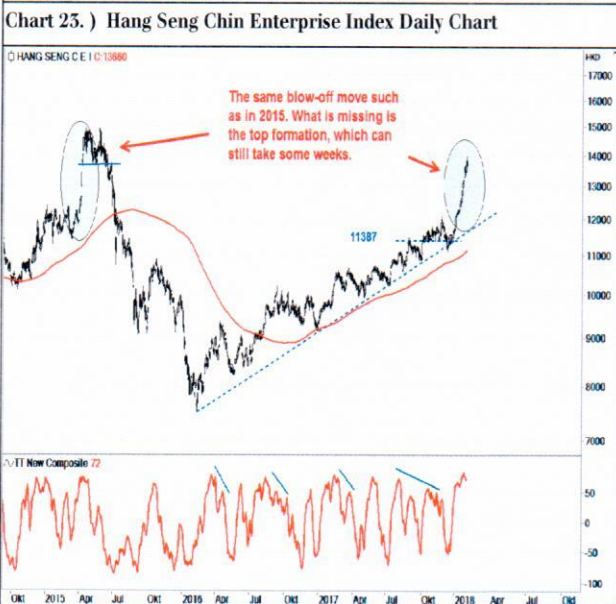
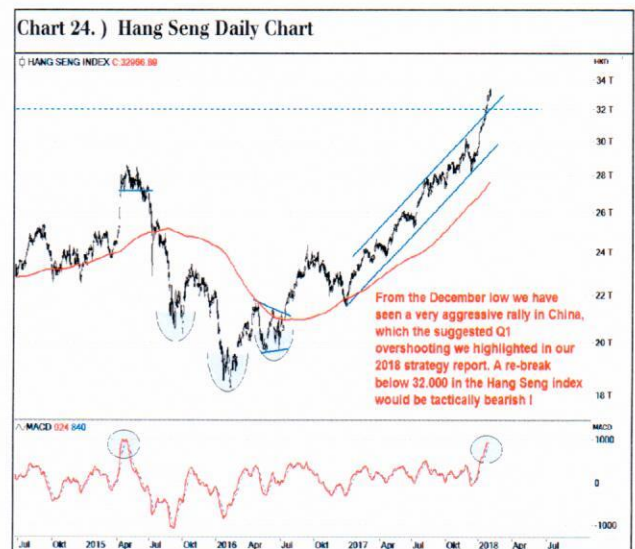
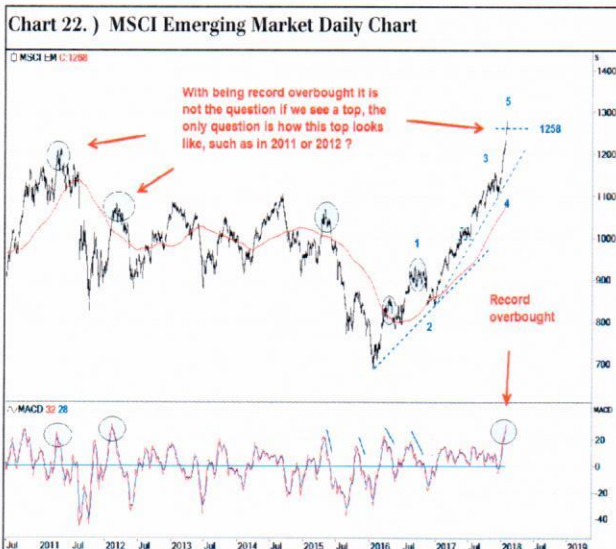
Keep in mind, the German Bund is sitting on a very obvious key support, where the break of the 2008 downtrend in yields is already the leading indicator for the break down in the Bund, which would open the door for a potential short but sharp correction towards 150!!

Asian Corner Update:

Vertical Rally in Asian/Emerging Markets is Exhaustive!

Following the pattern of US mega caps, we saw in most of Asian/EM markets a nearly vertical rally in the first 4 weeks of 2018. Generally, with the vertical rally off from its early December reaction low we see the MSCI Emerging Market trading in wave 5, which at the end of the day we expect to complete the 2016 bull cycle. As we said in our 2018 outlook, from a cyclical aspect, we expect the Emerging Market complex (as well as global equities) moving into a 4-year cycle peak. With being record overbought we think it is just a question of time to see the MSCI Emerging Market topping out but similar to the US, as long as we do not see minimum a distributive top formation as in 2015 in the HSCEI, we think it is too early to get or turn bearish.

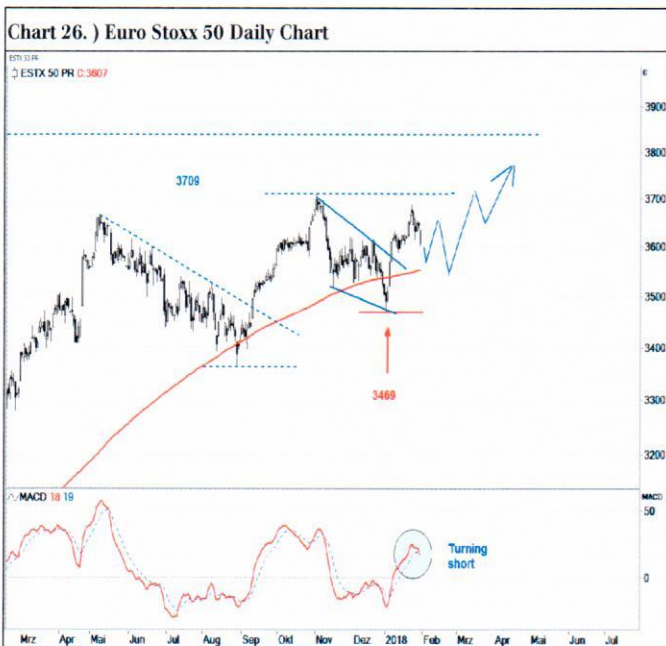
Conclusion: The vertical rallies in the Hang Seng, HSCEI and other Asian markets are clearly exhaustive and have the character of a classic blow-off phase, implying that the ultimate end game of the 2016 bull cycle has started. However, similar to the US, as long as we do not see any bigger distributive patterns it is too early to get bearish or call a top. So after a potential short-term pullback into February it's likely to see more gains into later Q1 but where we see a high likelihood for EMs to move into a major top (4-year cycle peak) and start wave A of a larger correction cycle. We would use strength to take profits!



European Equity Market Update:

Short-Term Pullback into February

With last week’s initial pullback, our view on Europe remains unchanged. Although continuing to underperform the US, as long as the Euro Stoxx trades above its early January low at 3469, the medium-term patterns in Europe remain constructive, where financially sensitive markets (FTSE MIB, CAC) are outperforming and testing big breakout levels (IBEX has broken its 2017 down trend), whereas defensive markets and the more cyclical driven indices (DAX, OMX) are latently underperforming, and worst case already trading in a distributive process. With last week’s initial pullback we see Europe vulnerable for more short-term weakness into February but where we clearly expect the Euro Stoxx forming a higher low (versus its early January low) as the setup for the next and real attempt to test and break its November top at 3709, which would open the door towards 3817. Sector-wise we remain bullish banks and cyclicals whereas defensives should continue to underperform trend-wise into later Q1/early Q2.



Euro Stoxx 50:

Last week saw the beginning of a pullback on the index front, which started as expected below the overhead resistance at 3709. If we get a classic a-b-c pullback pattern of a minor degree into February, then last week's pullback probably represents wave a such that a second pullback leg towards 3550 remains on the agenda. Our scenario of a higher low into February above 3469 remains clearly favoured in that context.

From an anticipated higher February low, the next rally attempt should start into deeper Q1 and should test minimum 3709 if not even the 2015 reaction high at 3836.

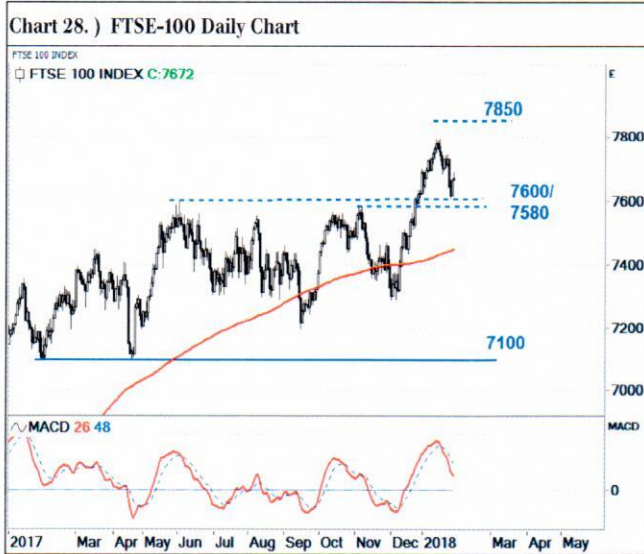


STOXX Europe Banks (SX7P):

In the current macro environment, banks continued to outperform and from a trend perspective, we expect this to be the case minimum into deeper Q1/Q2. Short-term, banks like other leaders are overbought and may pull back. With buying support expected at the latest around 190, we would see just a limited February pullback as a corrective wave 4 and so that into later Q1, we favour to see minimum another significant rally attempt.

For a wave 5, we have a first price target projection at 201, whereas the measure move method from the previous multi-month sideways range suggests even upside towards 209, which we would see as the best case for a late Q1/Q2 extension.

European Equity Market Update:



FTSE-100:

The FTSE has performed a classic pullback towards former resistance at 7600/7580, which represents a trading support. If the current pullback extends into February, a break of support would suggest extension towards the 200 day moving average at 7450 from where another rally attempt into deeper Q3 is expected to develop towards 7800/7850.



DAX-30:

Last week the DAX failed at its early November high (13526) and produced a tactical reversal. A slightly overbought stance and the failure high suggest more near-term consolidation with minor support at 13138. A break of the latter would suggest some further near-term extension towards the early January high but generally, we favor a higher low forming into February as the basis for another rally attempt towards 13526/13825.



Swiss Market Index:

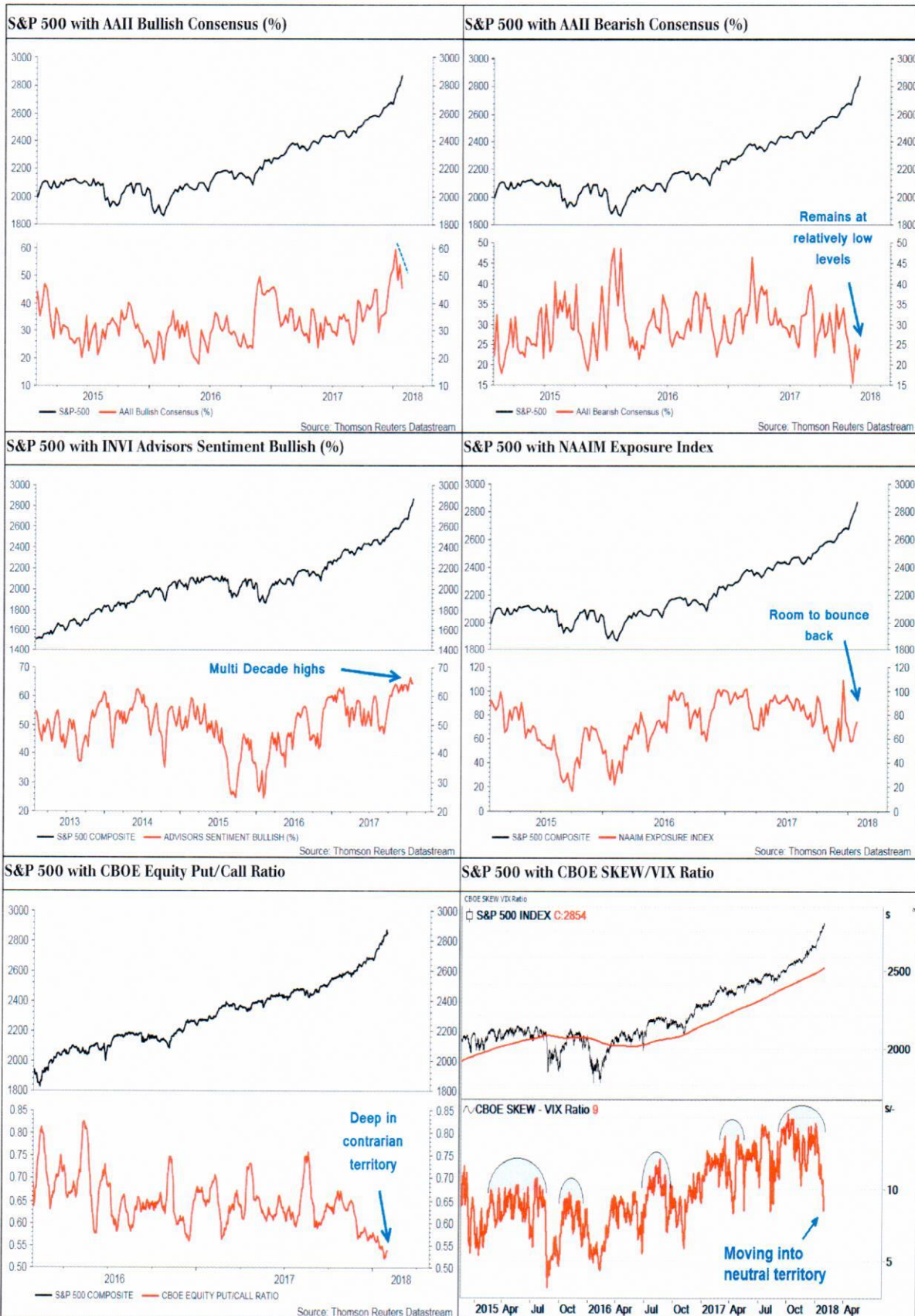
Financials remained broadly supported by rising yields, whereas many of the short-term overbought cyclicals are starting to pull back. The lagging pharma and food stocks so far only provided selective index support and the current index consolidation, which started on January 9th, could easily continue into February, which is what the daily momentum indicator is suggesting.

From a technical point of view, further consolidation would quickly challenge important technical support, defined by the bull trend from November 2016 at 9355. This is something to keep an eye on because a trend break would cap upside during the next rally attempt into deeper Q1.

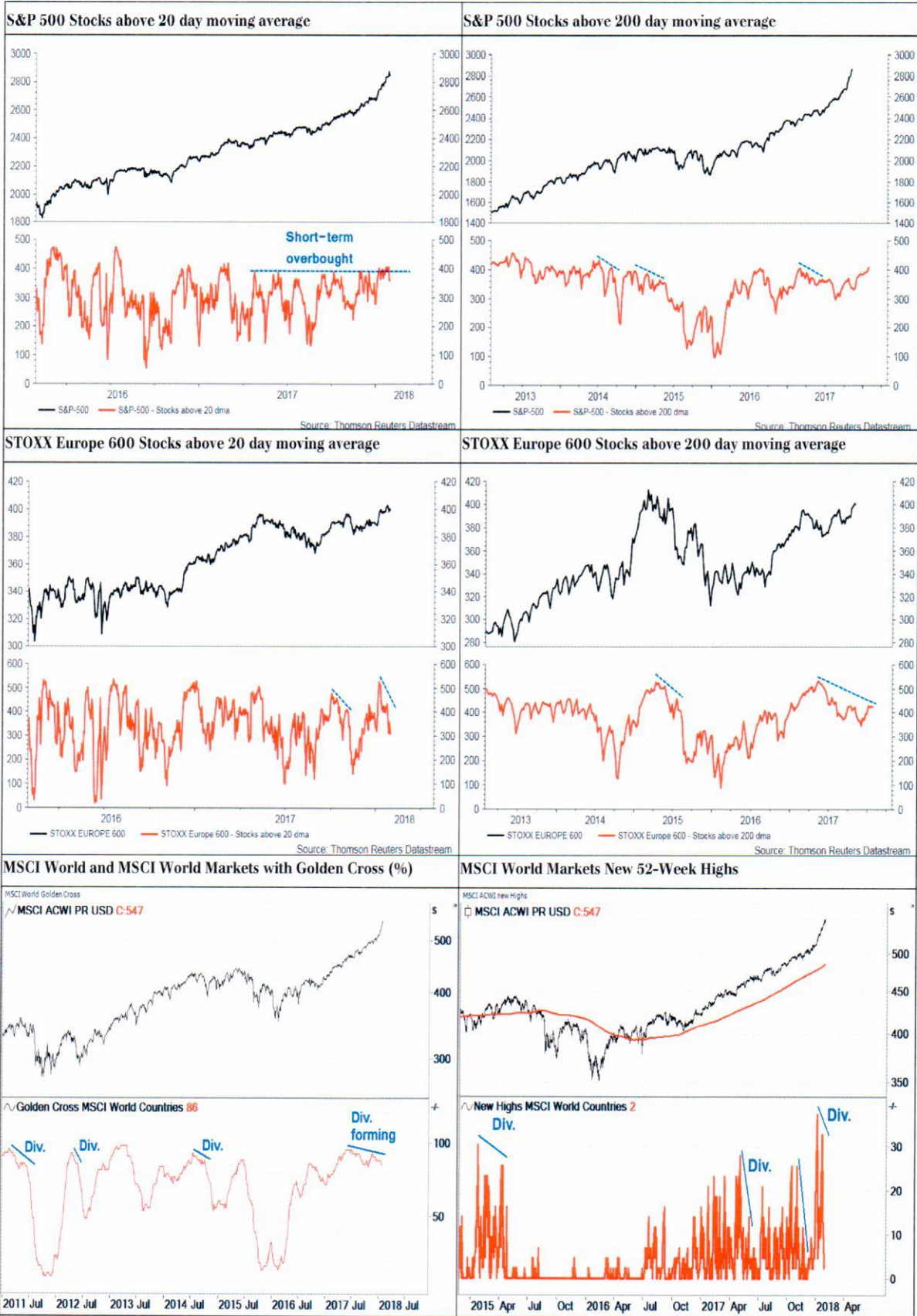
| |
|---|
| STOXX Europe 600 Index Sector Overview: |
|---|

| | RIC | Trading at | Trend (weekly MACD) | Rel. Strength according to the spread chart |
|-----------------------------|-------|------------|---------------------|---|
| Automobiles & Parts | SXAP | 671.87 | ↗ | Outperforming |
| Banks | SX7P | 194.68 | ↗ | Outperforming |
| Financial Services | SXFP | 512.76 | ↗ | Outperforming |
| Basic Resources | SXPP | 491.1 | ↗ | Outperforming |
| Insurance | SXIP | 301.55 | ↗ | Outperforming |
| Industrial Goods & Services | SXNP | 553.14 | ↗ | Outperforming |
| Oil & Gas | SXEP | 324.15 | ↗ | Outperforming |
| Chemicals | SX4P | 984.14 | ↗ | Neutral |
| Constructions & Materials | SXOP | 472.81 | ↗ | Neutral |
| Retail | SXRP | 311.29 | ↗ | Neutral |
| Travel & Leisure | SXTP | 264.43 | ↗ | Neutral |
| Media | SXMP | 271.84 | ↗ | Neutral |
| Real Estate | SX86P | 177.15 | ↗ | Neutral |
| Technology | SX8P | 458.01 | ↘ | Neutral |
| Healthcare | SXDP | 742.06 | ↗ | Underperforming |
| Telecommunications | SXKP | 281.23 | ↗ | Underperforming |
| Personal & Household Goods | SXQP | 838.68 | ↘ | Underperforming |
| Utilities | SX6P | 283.97 | ↘ | Underperforming |
| Food & Beverage | SX3P | 654.67 | ↘ | Underperforming |

Weekly Technical Indicators: (Source: Pinnacle Data, Datastream) Charts: Tradesignal

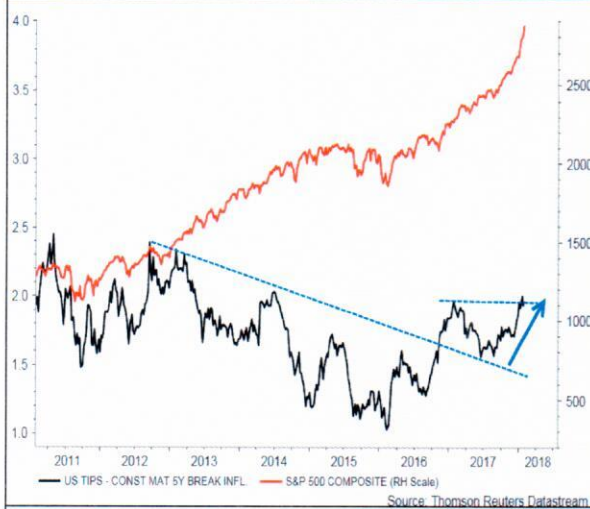


Weekly Technical Indicators: (Source: Pinnacle Data, Datastream) Charts: Tradesignal

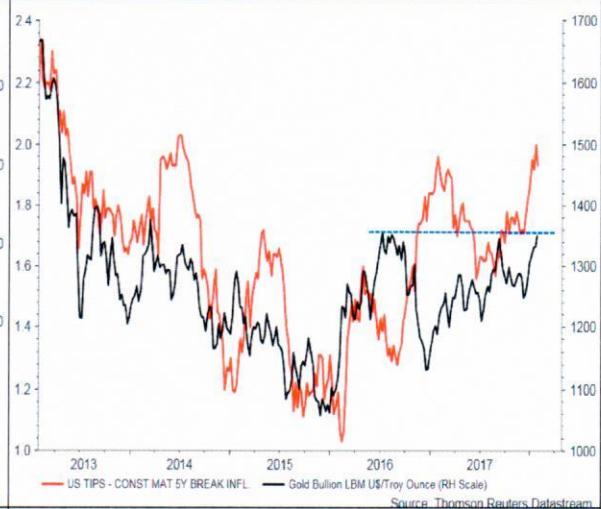


Weekly Technical Indicators: (Source: Pinnacle Data, Datastream) Charts: Tradesignal

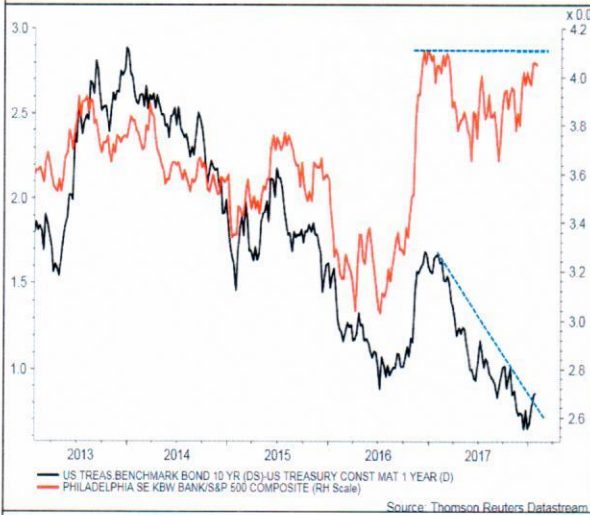
S&P 500 with Break-Even Inflation Rate



Gold with Break-Even Inflation Rate



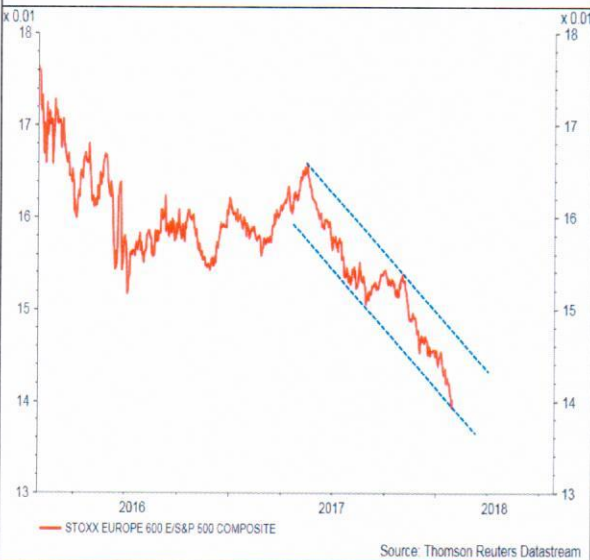
US Yield Curve versus US Bank Index (BKX)/S&P 500



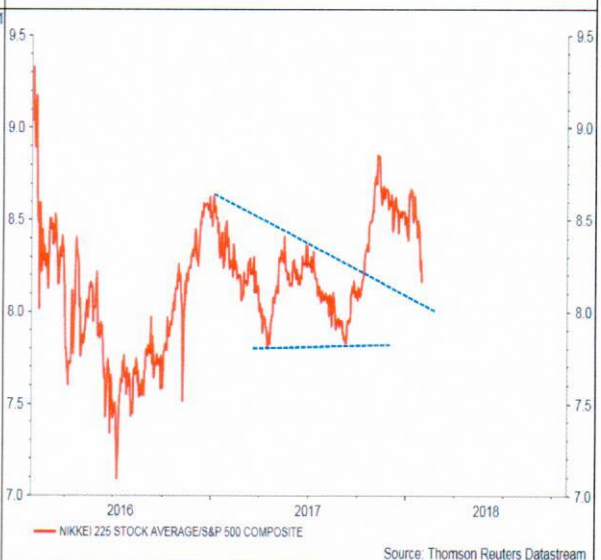
Yield Difference Germany vs USA and EURUSD



Relative Chart STOXX Europe 600 versus S&P 500



Relative Chart Nikkei 225 versus S&P 500



Global Sales and Trading Disclaimer (FICC and Equities)

Issued by UBS AG and/or any of its affiliates ("UBS"). The securities or other financial instruments described herein may not be eligible for sale in all jurisdictions or to certain categories of investors. This material has been prepared by sales or trading personnel and it is not a product of the UBS Research Department. It is for distribution only under such circumstances as may be permitted by applicable law. Please see further details as set out under "Country-specific information" below.

This material is proprietary commentary produced in conjunction with the UBS trading desks that trade as principal in instruments mentioned within. This commentary is therefore not independent from the proprietary interests of UBS or connected parties which may conflict with your interests. UBS may have accumulated or may acquire a long or short position in the subject security, or derivative securities thereof, on the basis of this material prior to its dissemination. This material constitutes an invitation to consider entering into a derivatives transaction under the applicable rules and regulations of the CFTC and SEC (where appropriate), where applicable, but is not a binding offer to buy/sell any financial instrument. UBS may trade as principal or otherwise act or have acted as market-maker in the securities or other financial instruments discussed in this material. Securities referred to may be highly illiquid which may adversely impact the price and speed of execution of orders in those securities. Furthermore, UBS may have or have had a relationship with or may provide or has provided investment banking, capital markets and/or other financial services to the relevant companies. Neither UBS nor any of its affiliates, nor any of UBS' or any of its affiliates, directors, employees or agents accepts any liability for any loss or damage arising out of the use of all or any part of this material. UBS has policies designed to manage conflicts of interest. UBS relies on information barriers to control the flow of information contained in one or more areas within UBS, into other areas, units, groups or affiliates of UBS. Additional information may be made available upon request.

Opinions expressed may differ from the opinions expressed by other divisions of UBS, including those of the Research Department. For access to UBS Research, including important disclosures, go to the ResearchWeb at www.ubs.com. This material has no regard to the specific investment objectives, financial situation or particular needs of any specific recipient. UBS does not undertake any obligation to update this material. This material is prepared from information believed to be reliable, but UBS makes no representations or warranties, express or implied, and owes no duties (including in negligence) as to the accuracy or completeness or reliability of the information contained herein, nor is it intended to be a complete statement or summary of the securities, markets or developments referred to in the materials. To the fullest extent permitted by law, UBS is not liable for any loss (even if UBS has been advised of the possibility of loss) arising out of any person's use of, or reliance upon, the information contained herein.

The information contained herein should not be regarded by recipients as a substitute for the exercise of their own judgment. Any prices or quotations contained herein are indicative only and not for valuation purposes. This material has been prepared for informational purposes only and is not an offer to buy or sell or a solicitation of an offer to buy or sell any security or instrument or to participate in any particular trading strategy. This material is not an official confirmation of terms. Prior to entering into a transaction you should consult with your own legal, regulatory, tax, financial and accounting advisers to the extent you deem necessary to make your own investment, hedging and trading decisions. Communications may be monitored.

Statement of Risk

Options, structured derivative products and futures are not suitable for all investors, and trading in these instruments is considered risky and may be appropriate only for sophisticated investors. Mortgage and asset-backed securities may involve a high degree of risk and may be highly volatile in response to fluctuations in interest rates and other market conditions. Past performance is not necessarily indicative of future results. Various theoretical explanations of the risks associated with these instruments have been published.

Country-specific information

Except as otherwise specified herein, these materials are distributed to professional clients only, and are not suitable for retail clients. **United Kingdom and the rest of Europe** Except as otherwise specified herein, these materials are distributed by UBS Limited, a subsidiary of UBS AG, to persons who are eligible counterparties or professional clients (as detailed in the PRA and FCA Rules and according to MIFID) and is only available to such persons. The Information does not apply to, and should not be relied upon by, retail clients. UBS Limited is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. **France:** Prepared by UBS Limited and distributed by UBS Limited and UBS Securities France S.A. UBS Securities France S.A. is regulated by the ACPR (Autorité de Contrôle Prudentiel et de Résolution) and the Autorité des Marchés Financiers (AMF). Where an analyst of UBS Securities France S.A. has contributed to this document, the document is also deemed to have been prepared by UBS Securities France S.A. Where an analyst of UBS Securities France S.A. has contributed to these materials, the materials are also deemed to have been prepared by UBS Securities France S.A.. **Spain** Prepared by UBS Limited and distributed by UBS Limited and UBS Securities España SV, SA. UBS Securities España SV, SA is regulated by the Comisión Nacional del Mercado de Valores (CNMV). **Italy** Prepared by UBS Limited and distributed by UBS Limited and UBS Italia Sim S.p.A. UBS Italia Sim S.p.A. is regulated by the Bank of Italy and by the Commissione Nazionale per le Società e la Borsa (CONSOB). **Germany** Prepared by UBS Limited and distributed by UBS Limited and UBS Deutschland AG. UBS Deutschland AG is regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin). **Poland** This material is distributed by UBS Limited (spółka z ograniczoną odpowiedzialnością) Oddział w Polsce regulated by the Polish Financial Supervision Authority only to institutional investors in Poland. The information contained herein does not apply to, and should not be relied upon by retail clients. **Turkey** Prepared by UBS Menkul Degerler AS on behalf of and distributed by UBS Limited. **Russia** Prepared and distributed by UBS Bank (OOO). **South Africa** UBS South Africa (Pty) Limited (Registration No. 1995/011140/07) is an authorised user of the JSE and an authorised Financial Services Provider (FSP 7328). **Switzerland** These materials are intended for distribution in Switzerland by UBS AG to qualified investors pursuant to Art.10 of the Swiss Federal Act on Collective Investment Schemes (CISA) as e.g. institutional investors only. **United States** These materials are distributed by UBS Securities LLC (member NYSE, FINRA and SIPC) or by UBS Financial Services Inc. (member FINRA and SIPC), both of which are subsidiaries of UBS AG; or solely to US institutional investors by UBS AG or by a subsidiary or affiliate thereof that is not registered as a US broker-dealer (a "non-US affiliate"). Transactions resulting from materials distributed by a non-US affiliate must be effected through UBS Securities LLC or UBS Financial Services Inc. **Canada** These materials are distributed by UBS Securities Canada Inc., a registered investment dealer in Canada and a Member of the Canadian stock exchanges & Canadian Investor Protection Fund, or by another affiliate of UBS AG which is registered to conduct business in Canada or otherwise exempt from registration. **Japan** These materials are distributed in Japan by UBS Securities Japan Co., Ltd., a registered financial instruments business operator, or by UBS AG Tokyo Branch, a licensed bank. For further details of our local services, please call your regular contact at UBS in Japan. **Hong Kong** The materials relating to equities and other securities business and related research, are distributed in Hong Kong by UBS Securities Asia Limited to professional investors. The material relating to corporate finance, foreign exchange, fixed income products and other banking business and related research are distributed in Hong Kong by UBS AG Hong Kong Branch to professional investors. **Australia** These materials are distributed by UBS AG (Holder of Australian Financial Services Licence No. 231087) and/or UBS Securities Australia Ltd (Holder of Australian Financial Services Licence No. 231098). These materials contain general information and/or general advice only and do not constitute personal financial product advice. As such, the materials have been prepared without taking into account any investor's objectives, financial situation or needs, and investors should, before acting, consider the appropriateness of the materials, having regard to their objectives, financial situation and needs.

Global Sales and Trading Disclaimer (FICC and Equities)

If the materials relate to the acquisition, or potential acquisition of a particular financial product by a 'Retail' client as defined by section 761G of the Corporations Act 2001 where a Product Disclosure Statement would be required, the retail client should obtain and consider the Product Disclosure Statement relating to the product before making any decision about whether to acquire the product and consult the relevant Financial Services Guide. UBS AG, Australia Branch is a foreign Authorised Deposit-taking Institution ("foreign ADI") under the Banking Act 1959 (Cth) and is supervised by the Australian Prudential Regulation Authority. However, it is important for you to note that should you make a deposit with UBS AG, Australia Branch in connection with the services UBS provides you, that deposit will not be covered by the provisions in the Banking Act 1959 (Cth) for the protection of depositors, as these provisions do not apply to foreign ADIs including UBS AG, Australia Branch. For example, depositors with foreign ADIs do not receive the benefit of the following protections: (i) Deposits are not covered by the financial claims scheme and are not guaranteed by the Australian Government; (ii) Deposits do not receive priority ahead of amounts owed to other creditors. This means that if a foreign ADI was unable to meet its obligations or suspends payment, its depositors in Australia would not receive priority for repayment of their deposits from the foreign ADI's assets in Australia; (iii) A foreign ADI is not required to hold assets in Australia to cover its deposit liabilities in Australia.

This means that if the foreign ADI was unable to meet its obligations or suspends payment it is uncertain whether depositors would be able to access the full amount of their deposit. UBS Securities Australia Ltd is a subsidiary of UBS AG. However, it is not an authorised deposit-taking institution under the Banking Act 1959 (Cth). The obligations of UBS Securities Australia Ltd do not represent deposits or other liabilities of UBS AG, and UBS AG does not stand behind, support or guarantee UBS Securities Australia Ltd in any way. **New Zealand** These materials are distributed in New Zealand by UBS New Zealand Ltd. The information and recommendations in these Materials are provided for general information purposes only. To the extent that any such information or recommendations constitute financial advice, they do not take into account any person's particular financial situation or goals. We recommend that recipients seek advice specific to their circumstances from their financial adviser. **Korea** Distributed in Korea by UBS Securities Pte. Ltd., Seoul Branch. This document may have been edited or contributed to from time to time by affiliates of UBS Securities Pte. Ltd., Seoul Branch. **India** Prepared by UBS Securities India Private Ltd. (Corporate Identity Number U67120MH1996PTC097299) 2/F, 2 North Avenue, Maker Maxity, Bandra Kurla Complex, Bandra (East), Mumbai (India) 400051. Phone: +912261556000 SEBI Registration Numbers: NSE (Capital Market Segment): INB230951431, NSE (F&O Segment) INF230951431, BSE (Capital Market Segment) INB010951437. **Dubai** These materials are distributed by UBS AG Dubai Branch (regulated by the DFSA) and are intended for Professional Clients only and are not for further distribution within the United Arab Emirates. **Saudi Arabia** These materials have been issued by UBS AG (and/or any of its subsidiaries, branches or affiliates), a public company limited by shares, incorporated in Switzerland with its registered offices at Aeschenvorstadt 1, CH-4051 Basel and Bahnhofstrasse 45, CH-8001 Zurich. This publication has been approved by UBS Saudi Arabia (a subsidiary of UBS AG), a Saudi closed joint stock company incorporated in the Kingdom of Saudi Arabia under commercial register number 1010257812 having its registered office at Tatweer Towers, P.O. Box 75724, Riyadh 11588, Kingdom of Saudi Arabia. UBS Saudi Arabia is authorized and regulated by the Capital Market Authority to conduct securities business under license number 08113-37. **Singapore** These materials are distributed in Singapore by UBS Securities Pte. Ltd or UBS AG Singapore Branch to institutional investors or accredited investors. **Asian jurisdictions (excluding HK, Singapore & Japan)** This material is not to be construed as a solicitation or an offer to buy or sell any securities, related financial instruments or services. Please also note that the products have not been intended for marketing to the public. **Malaysia** These materials are authorized to be distributed in Malaysia by UBS Securities Malaysia Sdn. Bhd (253825-x). **Brazil** Except as otherwise specified herein, this material is prepared by UBS Brasil CCTVM S.A. to persons who are eligible investors residing in Brazil, which are considered to be: (i) financial institutions, (ii) insurance firms and investment capital companies, (iii) supplementary pension entities, (iv) entities that hold financial investments higher than R\$300,000.00 and that confirm the status of qualified investors in written, (v) investment funds, (vi) securities portfolio managers and securities consultants duly authorized by Comissão de Valores Mobiliários (CVM), regarding their own investments, and (vii) social security systems created by the Federal Government, States, and Municipalities. **Israel** UBS AG and its affiliates incorporated outside Israel are not licensed under the Investment Advice Law. These materials are being issued only to and/or is directed only at persons who are Sophisticated Investors within the meaning of the Israeli Securities Law and these materials must not be relied or acted upon by any other persons.

Any securities mentioned herein that have not been registered under the Securities Act of 1933 may not be offered or sold in the United States except pursuant to an exception from the registration requirements of the Securities Act and applicable state securities laws and in such circumstances as may be permitted by applicable law.

UBS specifically prohibits the redistribution or reproduction of this material in whole or in part without the prior written permission of UBS and UBS accepts no liability whatsoever for the actions of third parties in this respect. © UBS 2018. All rights reserved.