FX Analysis: What Next For The Euro?

Analysis Summary

- Positive macro fundamentals case for Euro optimism
- Increasing bond yield spreads point to negative view
- Political uncertainty biggest threat to the Euro
- Options market shows investors hedging downside EUR
- Short-term strength, downward trend in technicals

LINC MACRO STRATEGY

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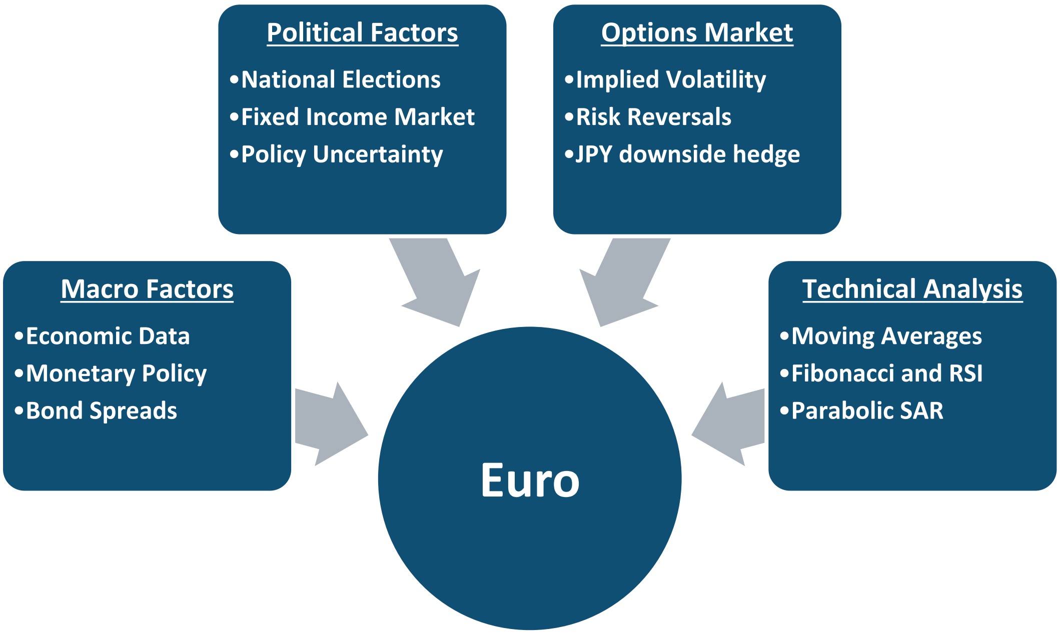

Exhibit 1: Bloomberg Euro Index, which tracks the performance of the Euro versus a basket of leading global currencies. Source: Bloomberg

Introduction

2017 will undoubtedly provide European-focused investors with a contradicting investment climate as sentiment appears caught between two opposing forces. On one side, optimism seems to be on the rise amid prospects of increased global growth driven by fiscal stimulus and accommodative quantitative easing from the European Central Bank. The other side paints a darker picture as increased political uncertainty driven by the rise of populism could unsettle markets. Against this backdrop, macroeconomic policy and politics should continue to dominate media headlines. With regards to the Euro, key elements for investors to consider will be national elections held in France, Germany and the Netherlands as well as economic data and monetary policy. This analysis will attempt to dissect those factors and analyze their potential effects on the currency complemented by insights from the options market and technical analysis.

Key Macroeconomic Factors Driving The Euro

Economic data points to recovery

Investors tend to seek out stable countries with strong economic performance in which to invest their capital. Metrics such as GDP, Inflation and Unemployment are therefore highly anticipated. Economic growth i.e. GDP growth, generally has an immediate impact on FX markets and is also an important indicator of overall economic health. Recent data shows Eurozone Real GDP expanding by 1,7% in 2016 (exhibit 2). In addition, OECD forecasts point to GDP growing by 1,7% in 2017 and 1,6% in 2018, which is a dramatic improvement when taking the recent decade into consideration. According to the ECB, Inflation is set to rise from 0,2% in 2016 to 1.4% in 2017. Even though this marks an improvement from recent deflationary periods, estimates remain below the ECB's 2,0% target (exhibit 13 appendix I). Unemployment currently stands at 9,67%, marking a seven-year low with forecasts pointing to further improvement (exhibit 15 appendix I). Positive economic readings will give investors some respite amid uncertainty surrounding the Eurozone. Citi's Economic Surprise Index, which measures data surprises relative to market expectations, has been on an upward trend the past year. This index move is due to economic data coming in better than expected and supports our view that the Eurozone is on road to recovery (exhibit 14 appendix I). All else being equal, we believe the Euro will benefit from improving macro fundamentals.

ECB extends bond purchases

The ECB decided to extend it's QE program until December 2017 but reduced monthly purchases from 80 to 60 million Euros. The reduction supports our view that there could be a sense of recovery in the Eurozone. QE helps maintain yields at low levels, which should ostensibly weaken the Euro based on rate differentials staying wide (see exhibit 3 below).

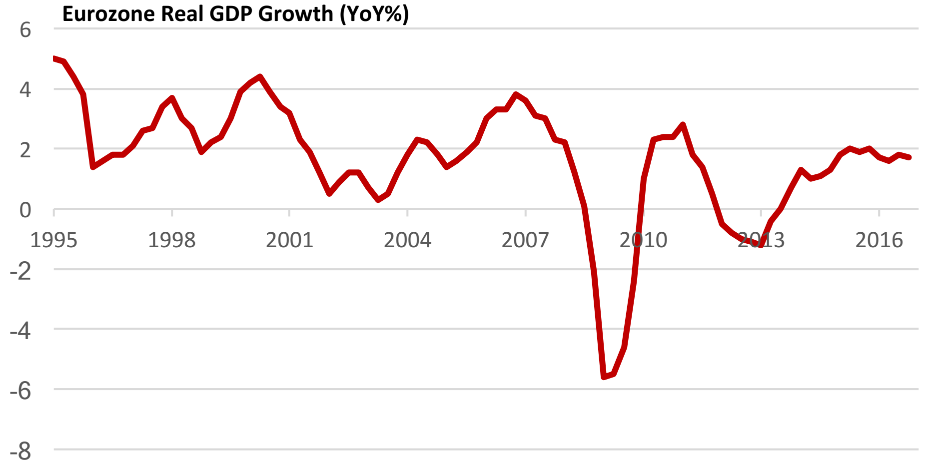

Exhibit 2: Eurozone Real GDP Growth (YoY%). Source: Bloomberg

Analyzing bond yield spreads

10-year sovereign bond yield spreads are used to evaluate the markets assessment of longer term interest/inflation rate expectations. The relationship between a currency pair and their respective bond yield spread is very straightforward. When the spread widens in favor of one currency, the general rule is that this currency will appreciate against its counterparty. This relationship is evident in the US/German 10-year bond spread as indicated in the figure below. It also also shows how this spread correlates with the EUR/USD currency pair. Currency movements are not only impacted by a change in bond spreads, but also by a shift in monetary policy expectations. The ECB hasn't signaled any intentions to raise rates in the near future, which will create a monetary policy divergence between Europe and the United States. The FED intends to raise rates 2 or 3 times this year according to the Implied Fed Funds Target Rate Chart (FOMC Dot plot), which in our view will act to strengthen the US Dollar against the Euro throughout 2017.

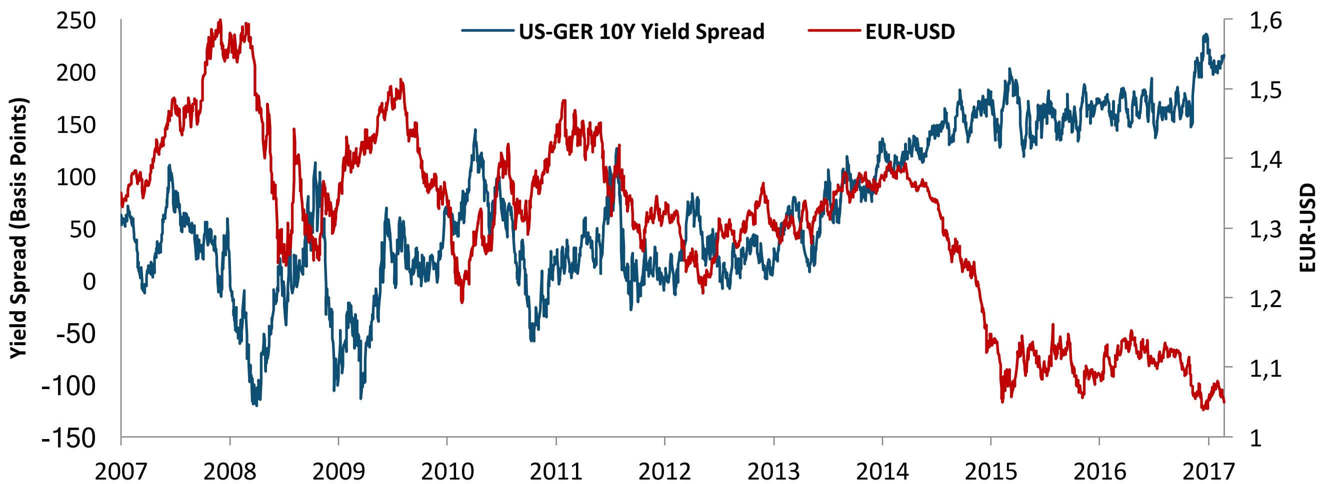

Exhibit 3: US-Germany 10-year sovereign bond yield spread and EUR/USD currency pair. Source: Bloomberg

Election Risk Top Market Priority

National elections and the rise of populism

Politics will remain one of the most significant elements for European-focused investors to consider in 2017. National elections will be held in France, The Netherlands and Germany between March and September. Brexit will likely be another stumbling block as the British Government signaled they'll initiate Brexit negotiations in March, leaving a small two-year window to achieve a deal with the EU. Dutch elections could catch investors unprepared as populism in the Netherlands gains momentum. December's "no" vote in the Italian referendum could result in elections being moved forward into 2017, adding to an already busy political calendar in Europe.

Political risk and the fixed income market

European bond markets are reflecting political uncertainty as yield gaps between some of the continent's safest bonds continue to widen (exhibit 6). National Front leader Marine Le Pen has made Frexit - France exiting the Euro - one of her top policy priorities. This helps explain the widening yield spread in French and German sovereign bonds, which currently stands at 75 basis points. If Le Pen were to win the election and follow through on her promise to break up the single currency, we expect German bonds to significantly outperform their European counterparts as investors will rush for safety. According to Exhibit 4, Le Pen is slightly behind the former economy minister Emmanuel Macron in the polls. Increased yields on Italian bonds are reflecting the rise of anti-EU parties, namely the Five Star Movement, and the possibility of them gaining ground if early elections are held in 2017. Markets could be in for yet another surprise when the Dutch go to the polls in March. The radical right-wing PVV party led by Geert Wilders currently lead the polls (exhibit 16 appendix I). The rise in Dutch bond yields has been relatively contained. In our view, markets could be underpricing political risk in the Netherlands.

Verdict for the Euro

The Euro will continue to be at the center of attention when it comes to analyzing the effects of increased populism. In our view, Le Pen remains the biggest threat to the currency because of her anti-EU stance coupled with France's important stature in Europe. The Economic Policy Uncertainty Index below measures news coverage about policy-related economic uncertainty. The recent spike surely reflects uncertainty in France. Investors could be caught off guard by an anti-establishment vote in the Dutch election. The main worry here is that political risk doesn't seem to be correctly priced in. The outlook for the Euro highly depends on the momentum of anti-EU parties.

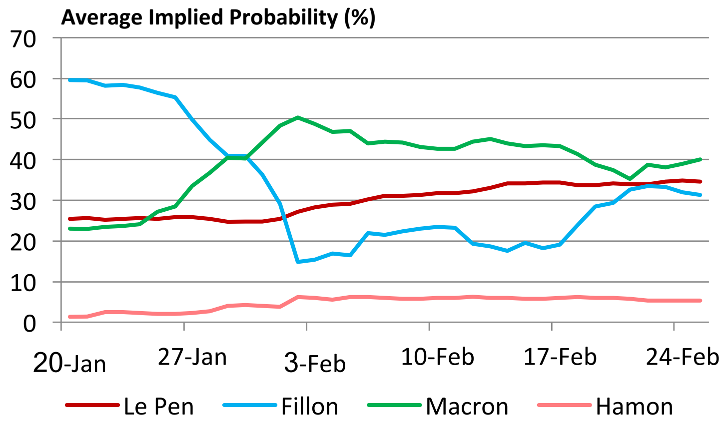

Exhibit 4: Average implied probability of winning the French election. Source: Oddschecker

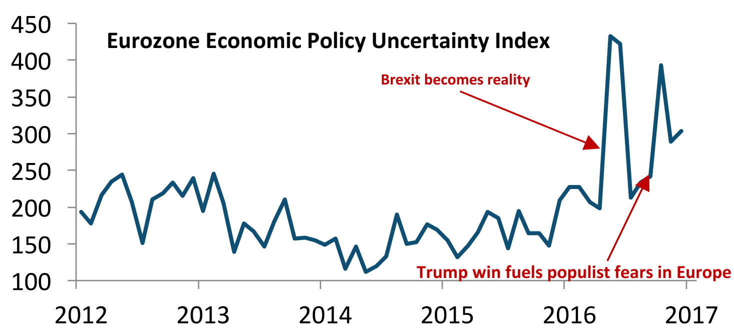

Exhibit 5: Eurozone Economic Policy Uncertainty index. Source: Bloomberg

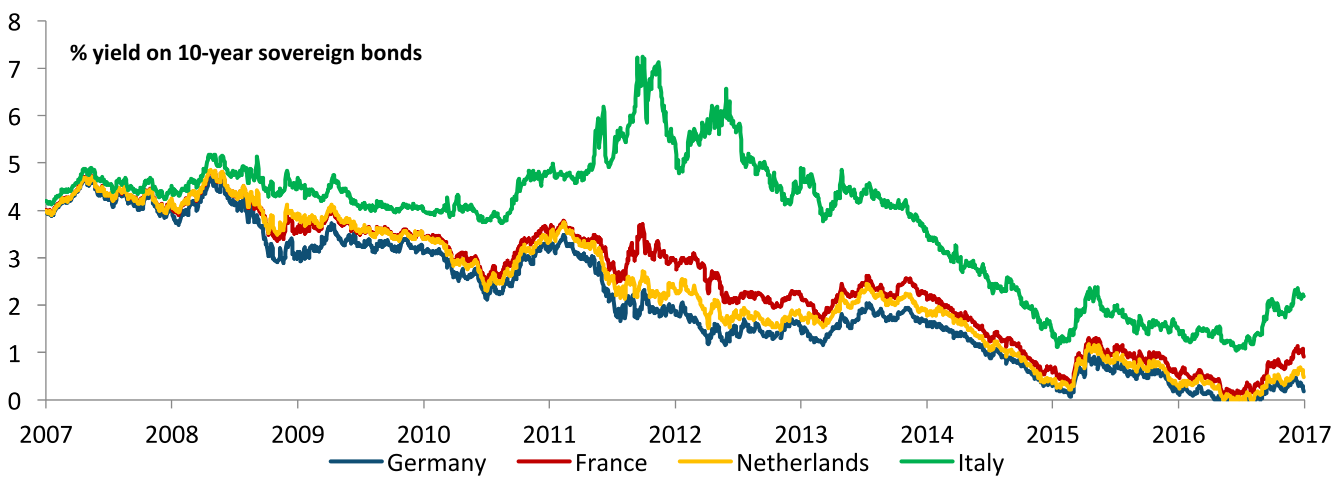

Exhibit 6: % yield on 10-year sovereign bonds. Source: Bloomberg

Why use the options market?

The options market can provide future expectations of the performance or value of an underlying asset. By aggregating expectations from market participants, this market has the ability to provide a market view (bullish vs bearish) as well as timing (how fast) and magnitude (how far). All of this information can be captured by the implied volatility (IV), which is defined as the estimated volatility of a security's price. In general, IV increases (decreases) when the market is bearish (bullish). IV for FX options can be derived from the Garman-Kohlhagen-Black-Scholes model (exhibit 17 appendix II). According to this model, when the volatility input increases (decreases), the theoretical option price goes up (down).

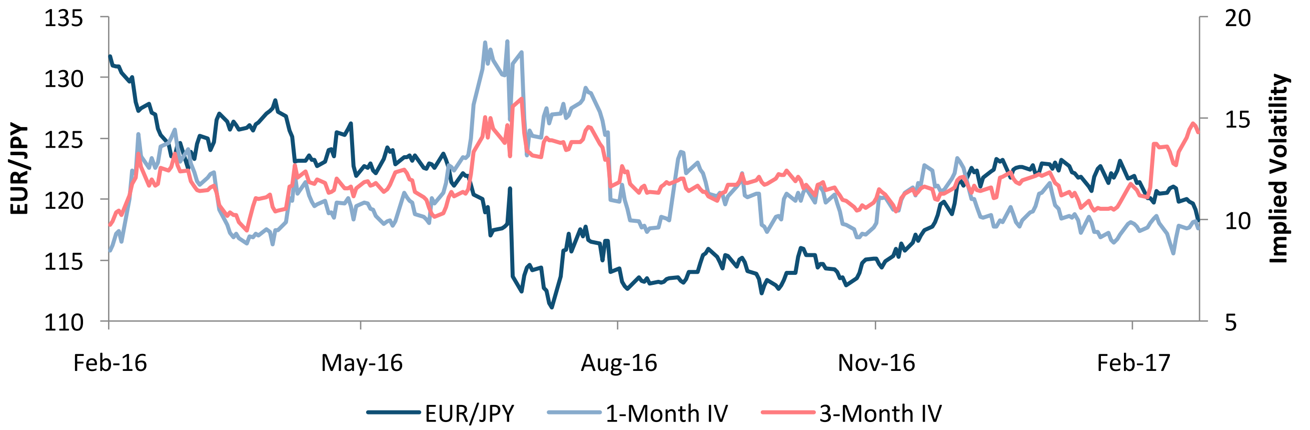

Exhibit 7: EUR/JPY spot, 1M IV and 3M IV. Source: Bloomberg

1M-3M IV spread

Comparing historical implied volatilities can be an effective measurement when attempting to predict market activity. The 1M-3M IV spread is the most commonly used benchmark to forecast potential breakouts i.e. price movements through a resistance level. Exhibit 7 depicts the 1M-3M IV spread for the EUR/JPY currency pair as well as the spot price. What's clear from this graph is a continued widening of the 1M-3M IV spread. The general rule is that this indicates a probable downward breakthrough of the identified resistance level (see exhibit 11 for Fibonacci percentage retracements). EUR/USD and EUR/GBP tell a similar story as seen in exhibits 18 and 19 in appendix II.

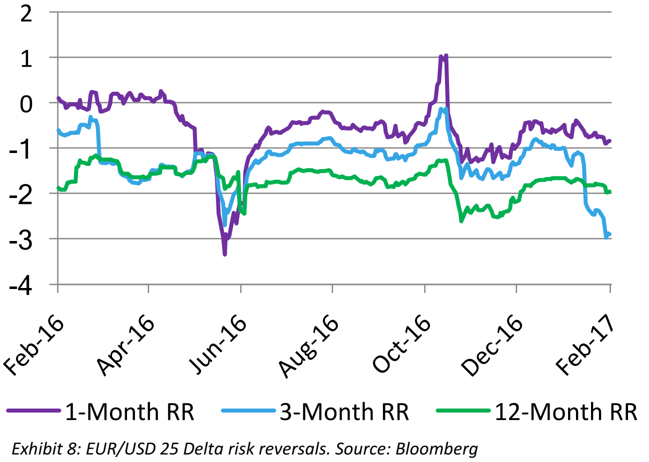

Exhibit 8: EUR/USD 25 Delta risk reversals. Source: Bloomberg

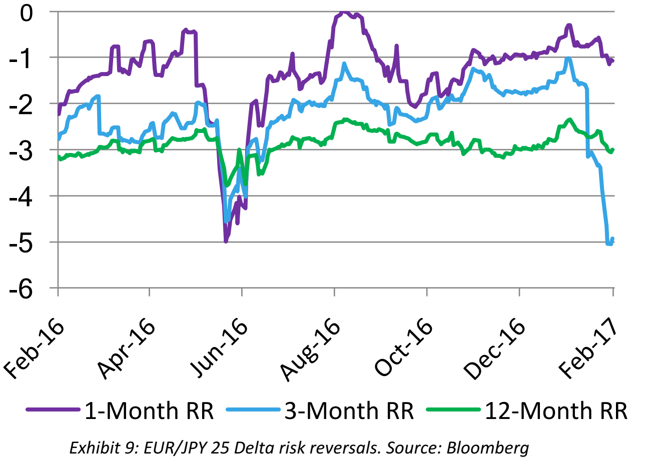

Exhibit 9: EUR/JPY 25 Delta risk reversals. Source: Bloomberg

Risk reversals (RR) for direction

Risk reversals on FX options are used to evaluate the sentiment on a specific currency pair. The RR is a measure of the skew in demand for out-of-the-money (OTM) options at high strikes (OTM call options) compared to low strikes (OTM put options) and can be interpreted as the market view of the most likely direction of the spot movement over the next maturity date. Positive values indicate that calls are more expensive than puts (upside protection is relatively more expensive) and that the market expects a move up in the underlying currency pair. Likewise, negative values indicate that puts are more expensive than calls (downside protection relatively more expensive) and that the market expects downward movement in the currency pair. Exhibit 8 and 9 above show the 1M, 3M and 12M risk reversals for the EUR/USD and EUR/JPY currency pairs respectively (see exhibit 20 appendix II for EUR/GBP).

Clear message from options market

The options market paints a bearish picture for the Euro against the USD, JPY and GBP. Investors are continuing to hedge downside in the Euro, especially via EUR/JPY and EUR/USD. In our view, EUR/JPY is the currency pair to keep an eye on given the safe haven status of the Yen. We expect support for the JPY to be sustained as long as political risks in Europe remain elevated.

Moving average (MA) crossovers

The 20-Day MA crossed over the EUR/JPY spot last month signalling the beginning of the current downward trend. The 20-50 MA crossover signalled a strong sell and shift in momentum towards the downside. The 200-Day MA represents a support level of 117,68. The moving averages show a strong downward trend in the EUR/JPY. Coupled with the options market analysis, we could see a potential breakthrough of the 38,2% Fibonacci retractment level as well as the 23,6% level (exhibit 11). See exhibits 21 and 22 in appendix III for other currency pairs.

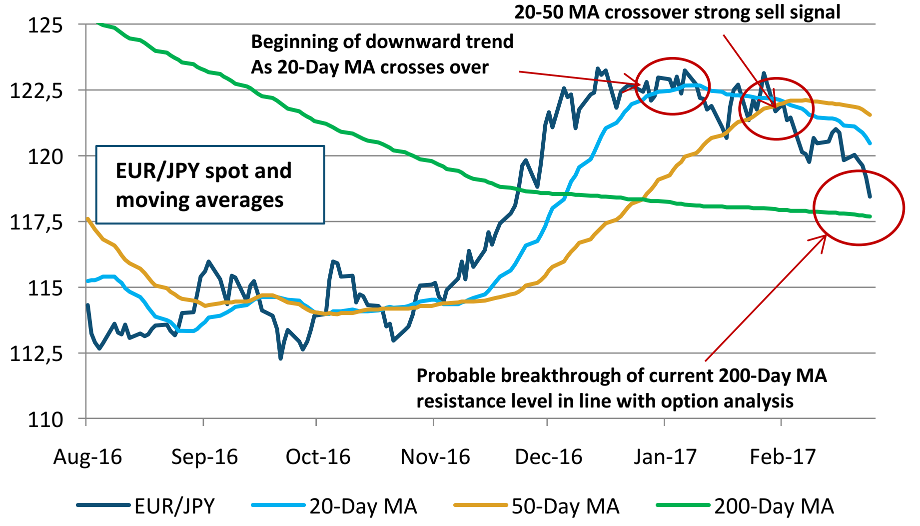

Exhibit 10: EUR/JPY spot and moving averages. Source: Bloomberg

Relative Strength Index (RSI) and Fibonacci retractments

RSI is mostly used for indicating overbought or oversold market conditions. An RSI above 70 indicates a sell signal and below 30 indicates a buy . Given the shortcomings of using RSI alone, Fibonacci retractments are added to identify levels of support and resistance. RSI is used to confirm when a turn may be taking place. The moving average analysis indicated a downward trend in EUR/JPY with a possible breakthrough of the 200-day MA (117,68) as well as the 117,6 Fibonacci retractment. The Fibo and RSI analysis points to EUR/JPY approaching oversold conditions (RSI 32) with the 38,2% Fibo retractment as support. This means potential short-term upside for EUR/JPY. See appendix III for EUR/USD.

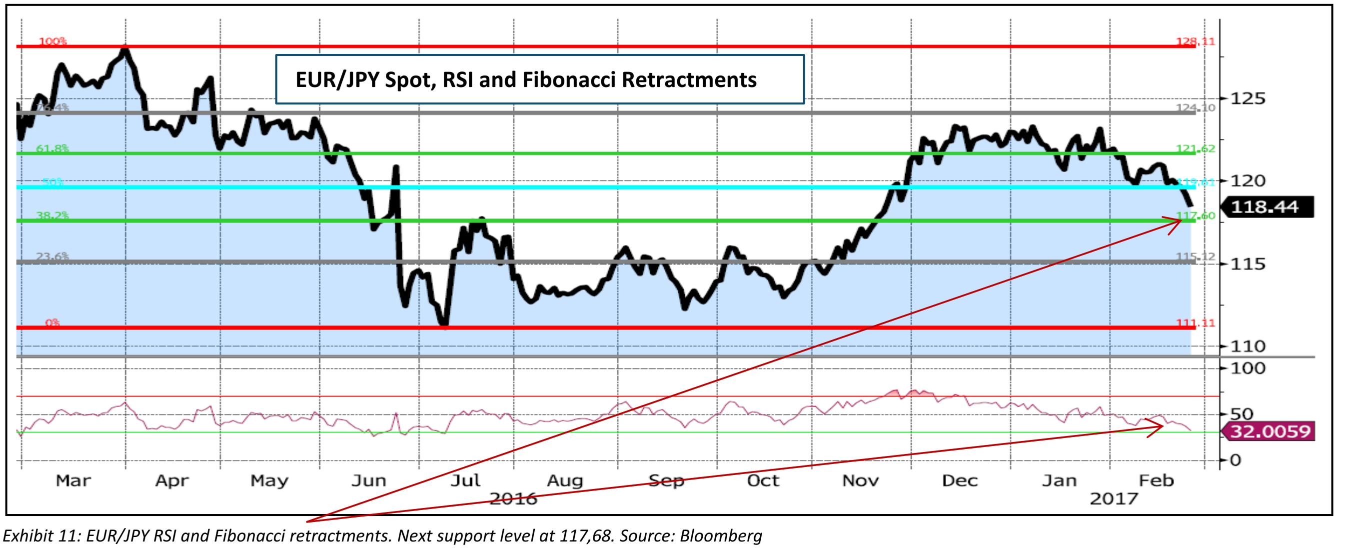

Exhibit 11: EUR/JPY RSI and Fibonacci retractments. Next support level at 117,68. Source: Bloomberg

Parabolic stop and reversal (PSAR)

PSAR is an effective tool to identify where a trend begins and ends. The SAR points in blue are a function of price movement and time. They follow the price using an acceleration factor that increases the velocity of price movement. A break of the SAR points suggest closing the current position and entering a new position in the opposite direction. PSAR currently points to a downward trend for the EUR/JPY currency pair with no break in sight. The PSAR analysis is in line with the moving average analyis with regards to the overall trend. See appendix III for EUR/USD PSAR.

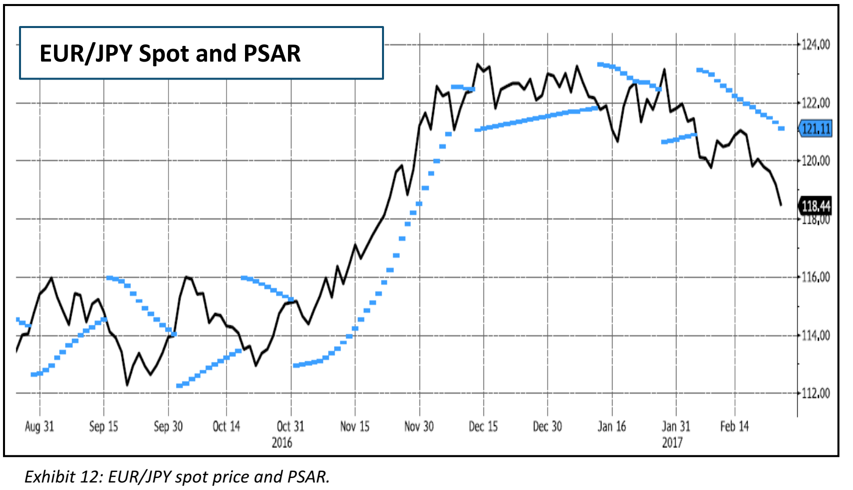

Exhibit 12: EUR/JPY spot price and PSAR.

Appendix I: Macro and Political Factors

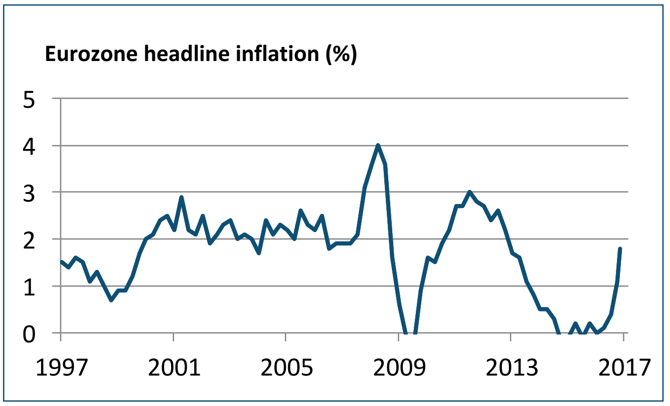

Exhibit 13: Eurozone Headline Inflation. Source: Bloomberg

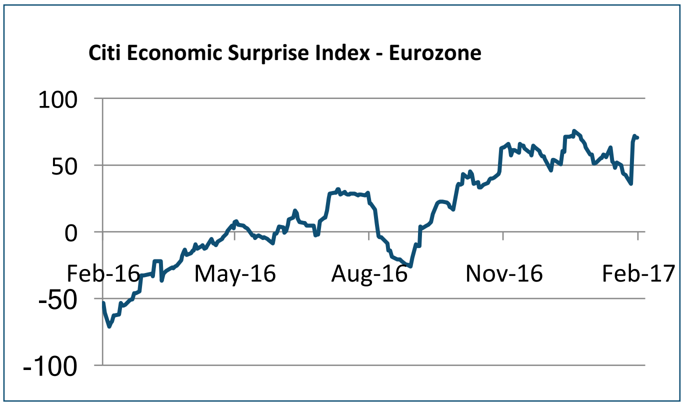

Exhibit 14: Citi Economic Surprise Index. Source: Bloomberg

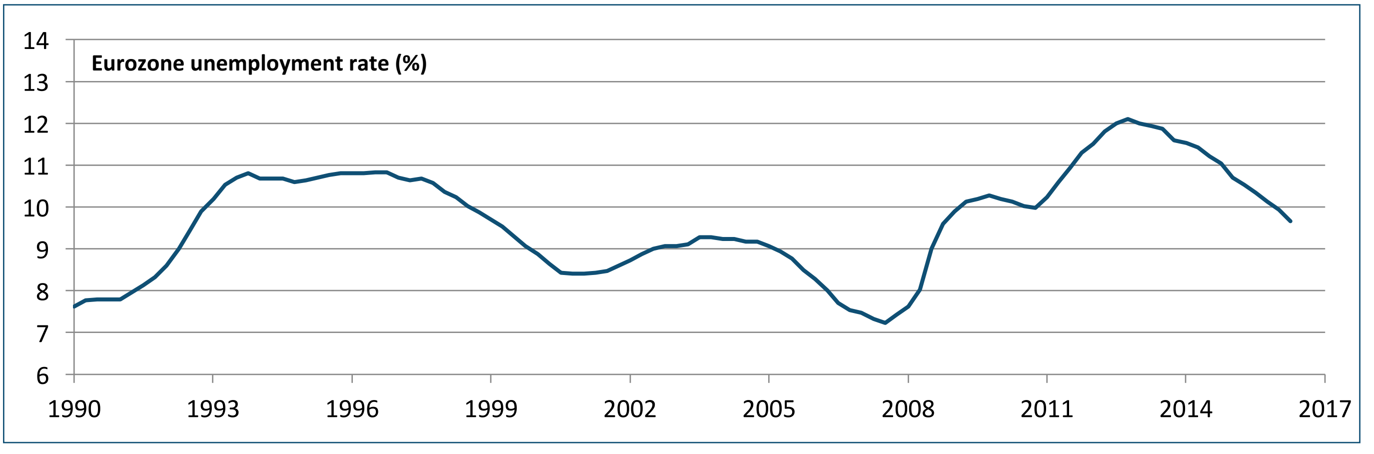

Exhibit 15: Eurozone Unemployment Rate (%). Source: Bloomberg

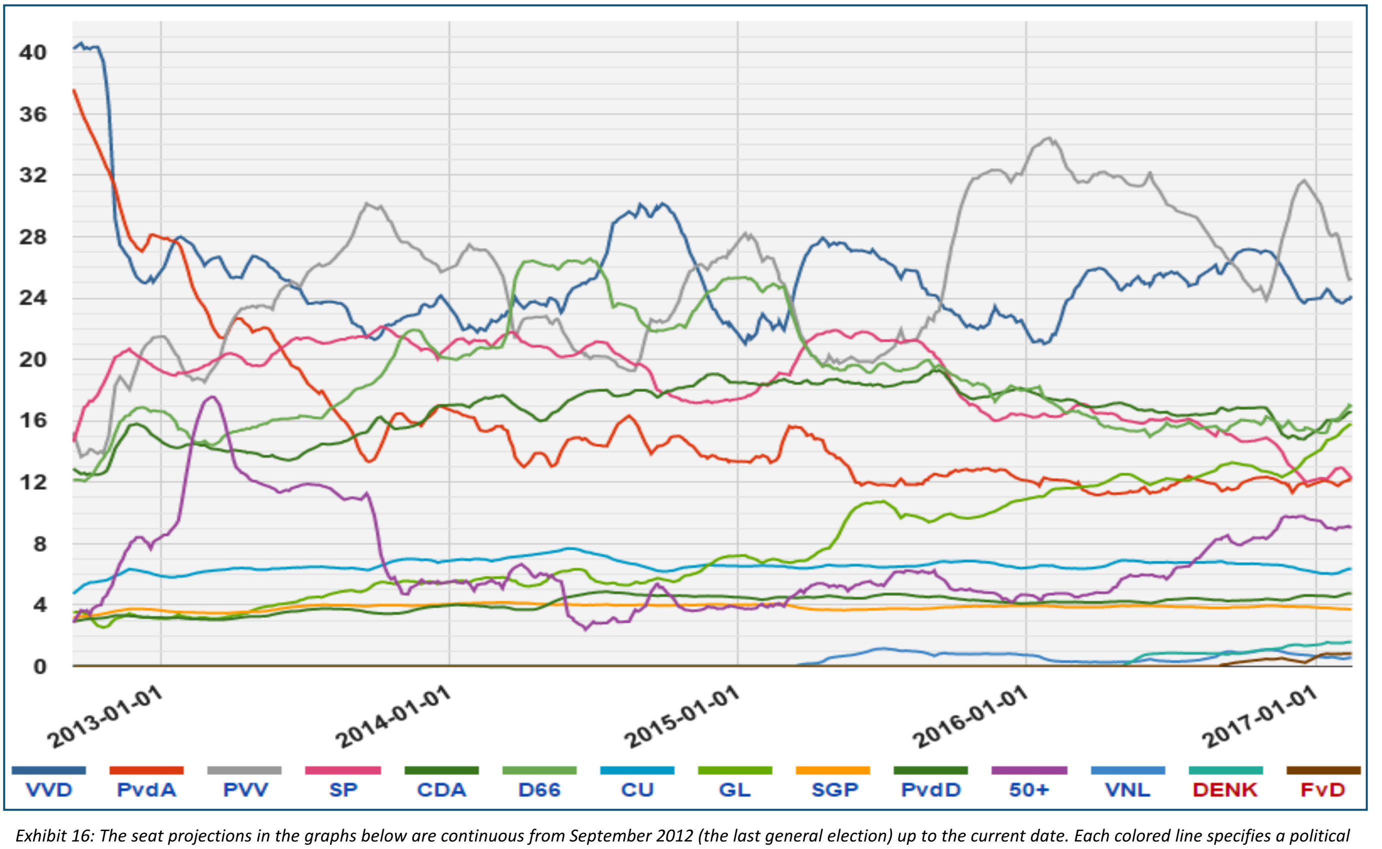

Exhibit 16: The seat projections in the graphs below are continuous from September 2012 (the last general election) up to the current date. Each colored line specifies a political party; numbers on the y-axis represent numbers of seats. it is not strictly a polling average, but a model calculating the trajectory of party support based on polls conducted by I&O Research, Ipsos, TNS NIPO, LISS panel, Peil, and De Stemming. Source: [Peilingwijzer]

Appendix II: Options Market

The **Garman-Kohlhagen-Black-Scholes model,** where the domestic currency value value of a call option into the foreign currency is:

$$c = S_0 e^{-r_f T} N(d_1) - K e^{-r_d T} N(d_2)$$

The value of a put option has value:

$$p = K e^{-r_d T} N(-d_2) - S_0 e^{-r_f T} N(-d_1)$$

Where:

$$d_1 = \frac{\ln\left(\frac{S_0}{K}\right) + \left(r_d - r_f + \frac{\sigma^2}{2}\right)t}{\sigma * \sqrt{t}}$$

$$d_2 = d_1 - \sigma * \sqrt{t}$$

Exhibit 17: Garman-Kohlhagen-Black-Scholes model formula for pricing FX options. Source: FinCad Resources

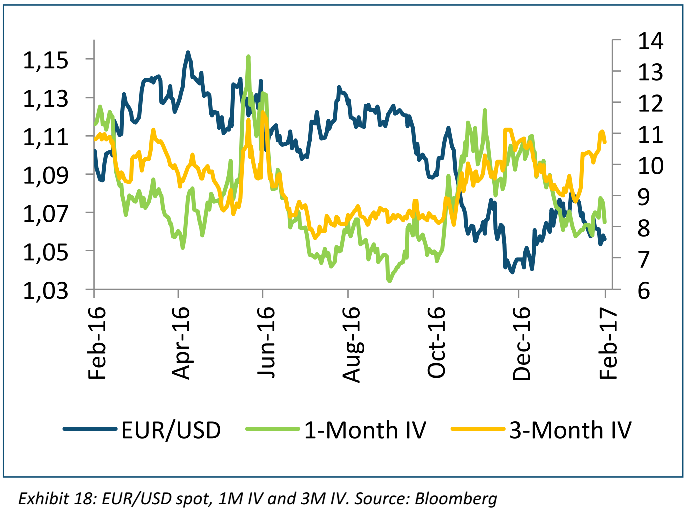

Exhibit 18: EUR/USD spot, 1M IV and 3M IV. Source: Bloomberg

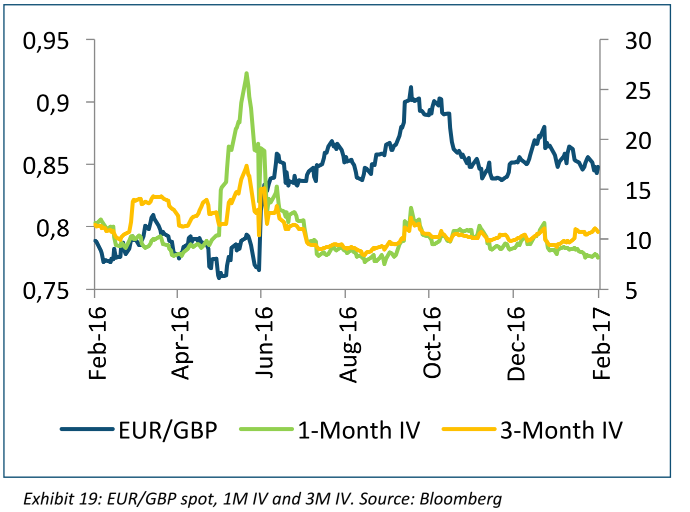

Exhibit 19: EUR/GBP spot, 1M IV and 3M IV. Source: Bloomberg

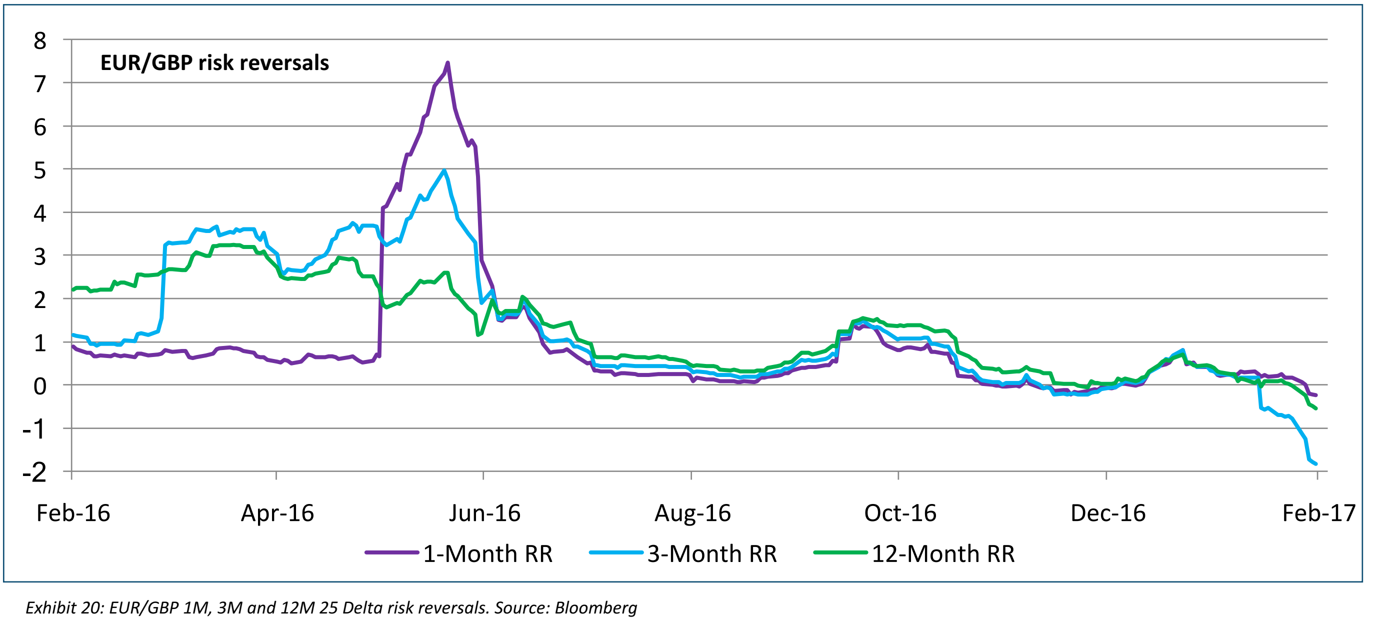

Exhibit 20: EUR/GBP 1M, 3M and 12M 25 Delta risk reversals. Source: Bloomberg

Appendix III: Technical Analysis

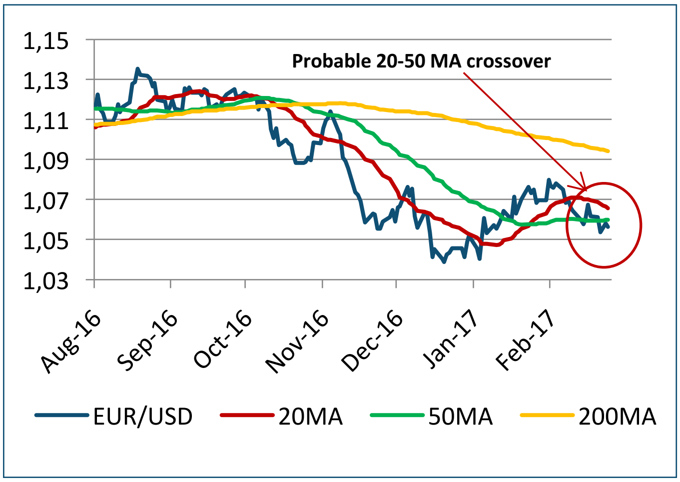

Exhibit 21: EUR/USD and moving averages. Source: Bloomberg

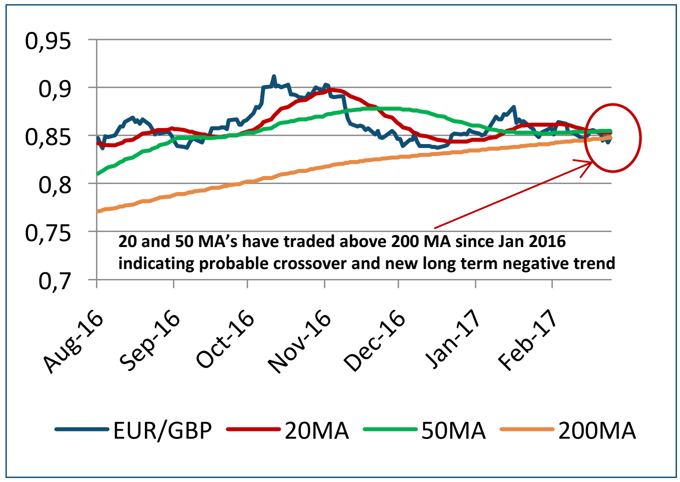

Exhibit 22: EUR/GBP and moving averages. Source: Bloomberg

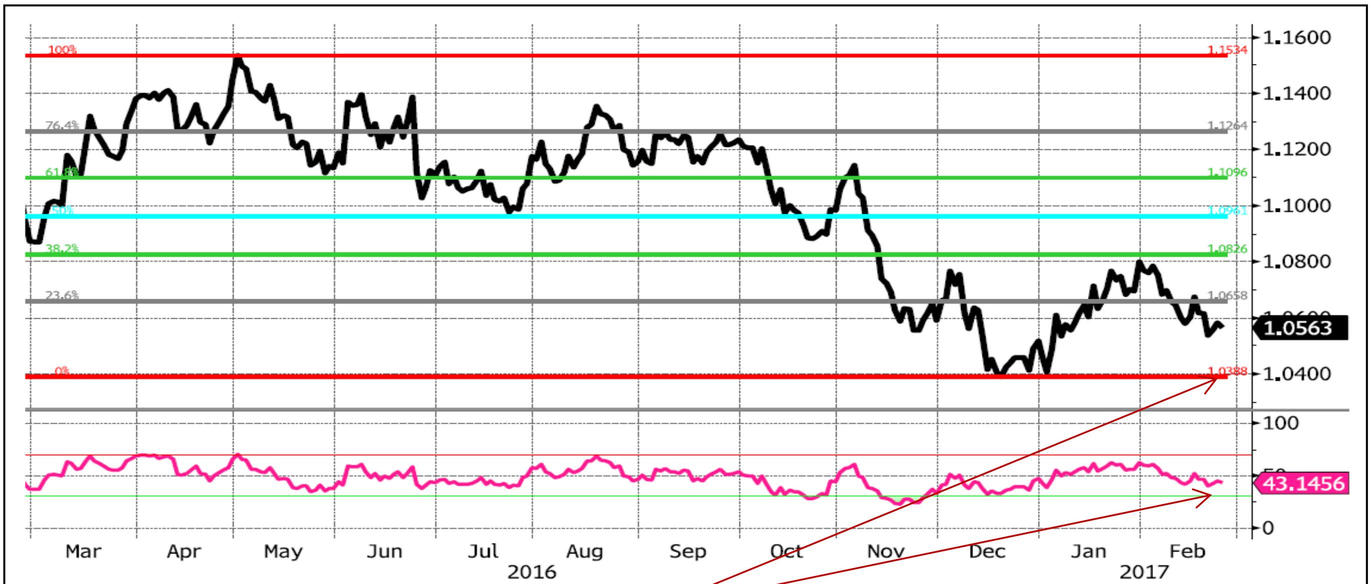

Exhibit 23: EUR/USD RSI and Fibonacci retractments. Next retractment level at 1,0388 . Source: Bloomberg

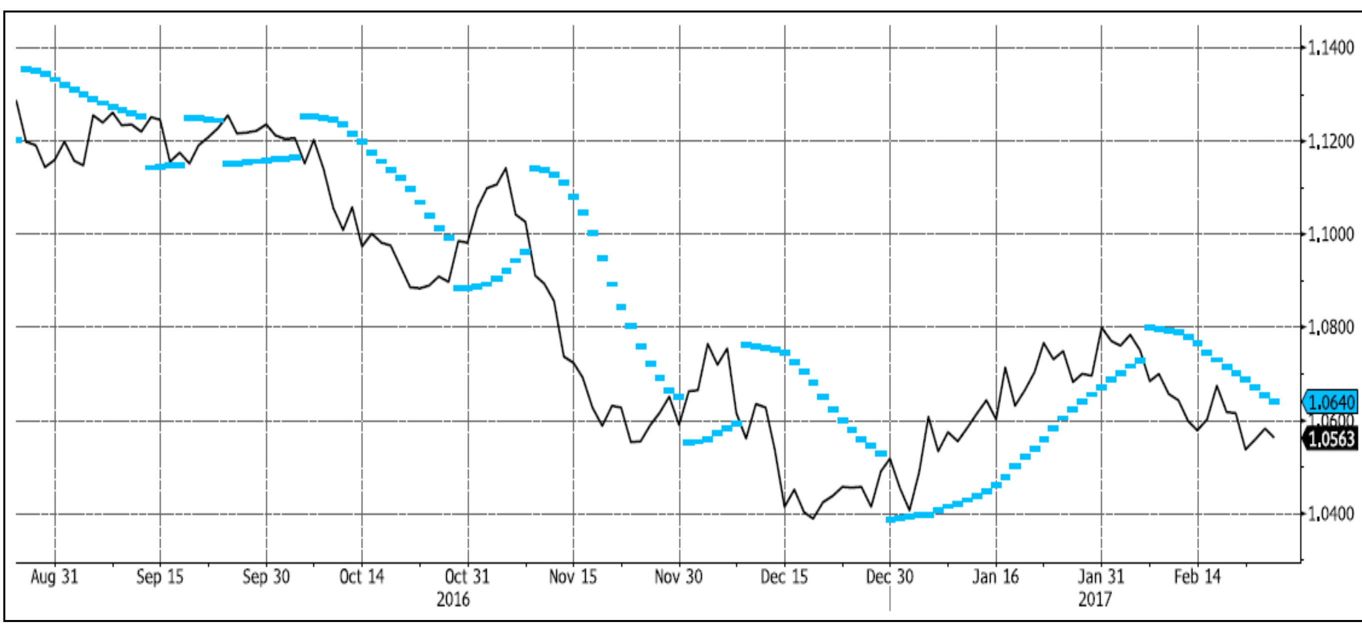

Exhibit 24: EUR/USD and PSAR. Not as clear downward trend as EUR/JPY. Could meet resistance at Fibonacci retractment level 1,0388

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