

European Views

French election: likely implications across markets

- Emmanuel Macron will face Marine Le Pen in the run-off of the Presidential election on May 7, according to exit polls. We maintain our [view](#) that mainstream candidate Mr. Macron will likely win the French Presidential election.
- We think the equity market has already largely priced the outcome and concerns about the elections have not prevented European equities and the CAC 40 from performing well on an absolute basis since the beginning of the year (+5% YTD for both).
- We expect today's results to generate some relief for the FTSE MIB, French and Italian banks and a very minor relief for the CAC 40. That said, as this has largely been the central expectation priced into the markets, we would expect any rally to be modest. French domestic stocks and the CAC 40 have not underperformed significantly as of late, and we do not expect them to rally materially following today's results, or after the second round of the election.
- In rates space, French bonds had incorporated some political risk premium, and traded more idiosyncratically. We expect the 10-year OAT-Bund spread to narrow by as much as 15bp on short covering, to around 50-55bp – or within 1 standard deviation above our macro-econometric model measure of 'fair value'. We would expect the daily correlation with German Bunds to remain somewhat below the 90% observed since the beginning of the ECB's PSPP on account of residual uncertainties in the run-up to the second round. We would expect a similar re-pricing in intra-EMU spreads in the periphery markets, where BTPs and Bonos spreads to Bunds could go back to trading closer to a range of 170-190bp in the coming weeks (from around 200bp on Friday's close) and 120-130bp (from around 140bp on Friday) respectively. We think that political uncertainty around the Italian political outlook will weigh on BTPs.
- Our FX analysis suggests that a sizeable decrease (to close to 0 percent) in the probability that investors assign to Ms. Le Pen becoming President, or to a break-up of the Euro area, that is close to its lows in July 2014 could push the EUR higher versus the USD and the JPY, pushing EUR/USD close to 1.13.

Peter Oppenheimer
+44(20)7552-5782 |
peter.oppenheimer@gs.com
Goldman Sachs International

Huw Pill
+44(20)7774-8736 | huw.pill@gs.com
Goldman Sachs International

Francesco Garzarelli
+44(20)7774-5078 |
francesco.garzarelli@gs.com
Goldman Sachs International

Silvia Ardagna
+44(20)7051-0584 |
silvia.ardagna@gs.com
Goldman Sachs International

Alain Durré
+33(1)4212-1127 | alain.durre@gs.com
Goldman Sachs Paris Inc. et Cie

Lilia Peytavin
+44(20)7774-8340 |
lilia.peytavin@gs.com
Goldman Sachs International

Pierre Vernet
+44(20)7552-0428 |
pierre.vernet@gs.com
Goldman Sachs International

The views expressed in this research report are for each analyst's area of coverage.

Goldman Sachs does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. For Reg AC certification and other important disclosures, see the Disclosure Appendix, or go to www.gs.com/research/hedge.html. Analysts employed by non-US affiliates are not registered/qualified as research analysts with FINRA in the U.S.



Macron and Le Pen qualify for run-off on May 7

Emmanuel Macron and Marine Le Pen top first round in French Presidential election, on latest projections

Exit polls indicate that the candidate of the centrist political movement *En Marche!* (Onwards!), Emmanuel Macron, and far-right candidate Marine Le Pen have qualified for the second-round run-off of the French Presidential election on May 7.

Exit polls reported by the French media show that Mr. Macron topped the first round, with around 24% of the vote, while Ms. Le Pen came in second place with around 22%.

According to the same exit poll, the results for the other main candidates (who are now eliminated from the Presidential race) are as follows: François Fillon (19.9%), Jean-Luc Mélenchon (19.3%) and Benoît Hamon (6.3%).

Exit polls all broadly point to the same results (at least for the main contenders) and have now been acknowledged by Mr. Fillon and Mr. Hamon, who both said they would support a vote for Mr. Macron in the second round. The final results will be released by the Constitutional Council on Wednesday, April 26 (8pm Paris time) at the latest, and will be available [here](#).

The outcome of the first round of the French Presidential election is broadly consistent with the [latest set of opinion polls](#), which were indicative of a tight race between Ms. Le Pen and Mr. Macron (at close to 23%), followed closely by Mr. Fillon and Mr. Mélenchon (both at close to 20%) – although the momentum behind the latter two candidates had improved of late.

Outlook for the second round on May 7

The run-off vote will take place on May 7. We maintain our [view](#) that the mainstream candidate, Mr. Macron, will likely win the French Presidential election.

In the two week-period before the run-off, both Mr. Macron and Ms. Le Pen will resume their campaign. A televised debate between both candidates will be held on May 3 (9pm Paris time).

Polls carried out prior to the outcome of the first round indicate that Mr. Macron has a 25pp lead over Mr. Le Pen. Reflecting [France's political realignment](#) between mainstream pro-European and populist Eurosceptic voters, we expect the gap in polls between Mr. Macron and Ms. Le Pen to widen in favour of Mr. Macron in the run-up to the second round. That said, given that (1) mainstream supporters are likely to present a broad united front against the FN in the run-off (dubbed the "*front républicain*"), as already highlighted by the support expressed by Mr. Fillon and Mr. Hamon in favour of Mr. Macron, and (2) left-wing populist supporters are unlikely to cast a vote for the FN because of its perceived extremism, we think it likely that Mr. Macron wins the French Presidency in two weeks' time.

In this context, we expect the ECB to maintain its existing refinancing facilities (namely the fixed-rate full allotment (FRFA) and the emergency liquidity provision (ELA) via the



Bank of France) in the coming weeks, to sustain market functioning and continuity of pricing in the systematically relevant market segments. In the face of a politically-induced spread widening, this is also likely to be accommodated through its asset-purchase programmes, as long as it proves to be temporary.

Huw Pill, Alain Durré and Pierre Vernet



Equities - the result was mainly priced

In our view, today's results for the first round of the French presidential election and the higher than expected turnout are likely to be received positively by market participants.

1. Expect limited market upside

We expect European equities to remain broadly flat during the two rounds of the election given that the outcome of the first round corresponds to what was broadly expected, and given that the probability of Ms. Le Pen winning the election cannot be completely ruled out.

While we think Emmanuel Macron will win the presidential election on 7 May, we think this outcome has the potential to lift European equities only slightly (about +2%-3%), given our view that very little 'election risk premium' has been discounted in European equities (unlike in the bond and the equity derivatives markets).

The French election has not prevented **European equities and the CAC 40 from performing well on an absolute basis since the beginning of the year (+5% YTD for both)**. Likewise, the performance of European equities versus the US has reflected pretty accurately the positive moves in fundamentals. **Europe has seen inflows from US investors (after a year of selling in 2016) and has started to outperform the US.**

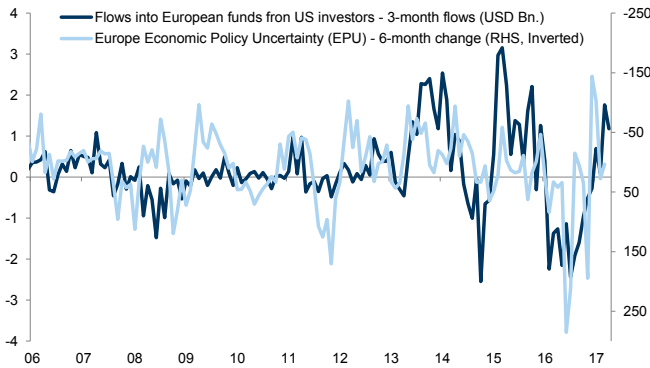
Since the beginning of the year, the equity risk premium has declined by 40bp in Europe, while it has risen by 50bp in the US. Strong global and local economic data since the end of Q4 2016 have benefited Europe relatively more, reducing the tail risk from deflation, while recent uncertainty regarding the policies of President Trump and future Fed rate hikes have reflatened the US ERP. If a tail risk event in European elections had been fully priced in, we think the equity risk premium and economic policy uncertainty spread between Europe and the US would not have tightened in favour of Europe to this extent.

As we have shown previously, inflows from US investors into European equities and the performance of European equities versus the US tend to correlate well with the relative uncertainty differential that prevails between the two regions. The two charts below show no disconnect in these historical relationships.



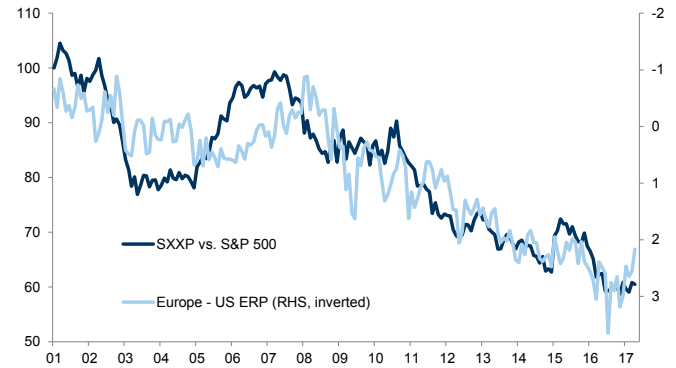
Exhibit 1: After a full year of selling in 2016, European equities have benefited from positive inflows from US investors

The Economic Policy Uncertainty index tracks the number of articles with policy-relevant terms such as uncertain or economy in major newspapers



Source: TIC, EPU, Goldman Sachs Global Investment Research

Exhibit 2: The SXXP has started to outperform the S&P 500 as the equity risk premium has fallen relatively more in Europe than in the US

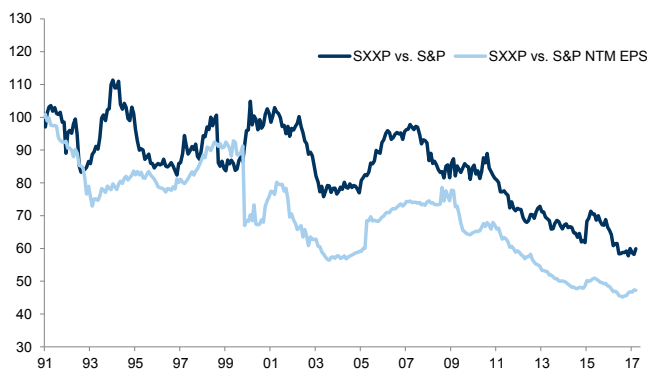


Source: Datastream, Goldman Sachs Global Investment Research

There is also evidence that European equities have moved in line with economic fundamental data, as they have recently started to outperform the US when earnings expectations have started to rise more rapidly in Europe than in the US (see Exhibit 3).

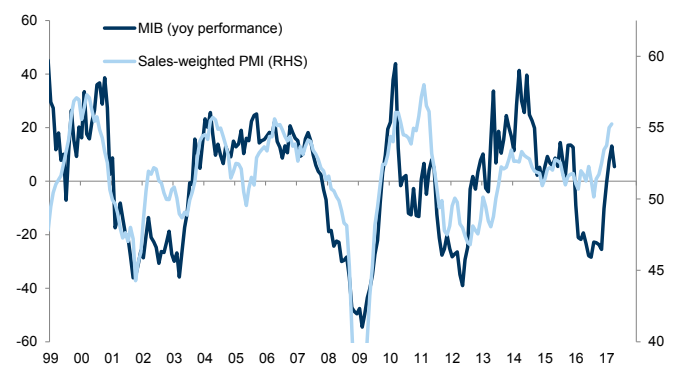
Another way to compare the performance of European equities with fundamental data is to look at the year-on-year performance of equities and PMIs. Exhibit 4 below shows that even Italian equities, which we consider to be the most sensitive to French election risk, have moved in line with the PMIs (weighted according to the geographical sales exposure of the FTSE MIB).

Exhibit 3: The recent outperformance of European equities is consistent with the relative improvement in profit growth in Europe versus the US



Source: Datastream, Goldman Sachs Global Investment Research

Exhibit 4: The FTSE MIB seems in line with PMIs



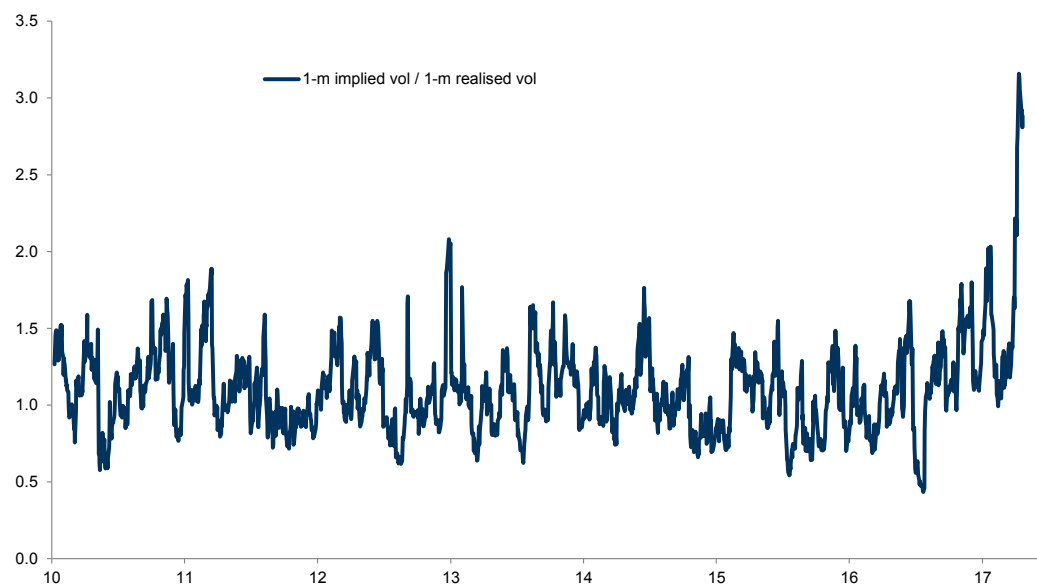
Source: Haver Analytics, Goldman Sachs Global Investment Research



In the event Ms. Le Pen is elected in the second round (not our base case), European equities would be particularly vulnerable given how little this scenario seems to have been discounted.

We estimate that the equity derivatives market is pricing a 5% absolute move for the SX5E for the election. Based on our assumption that it reflects a 20% probability of Ms. Le Pen being elected, it implies a 12% downside move for the SX5E and a 15%-16% downside move for the FTSE MIB and the CAC 40 if this scenario were to materialise. As we argued in a previous note, we think the FTSE MIB would be affected to a greater extent than the CAC 40. (See details of the implications of the election of Ms. Le Pen in *Frexit: what should you expect for European equities*, 15 March 2017.)

Exhibit 5: Implied volatility has never been as high vs. realised
 Implied (1m ATM) vs. realised (1m) SX5E volatility



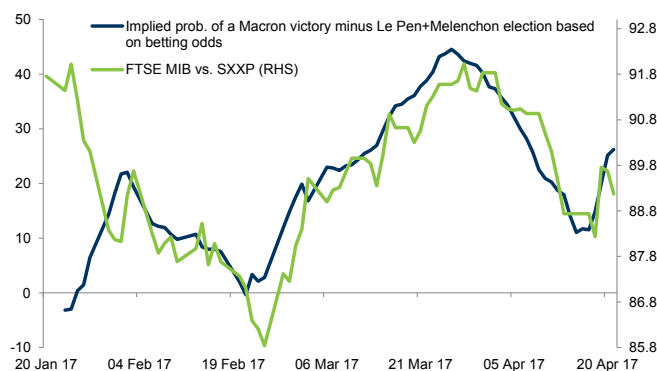
Source: Goldman Sachs, Goldman Sachs Global Investment Research



2. Below the market surface: expect Euro area risk assets to modestly outperform

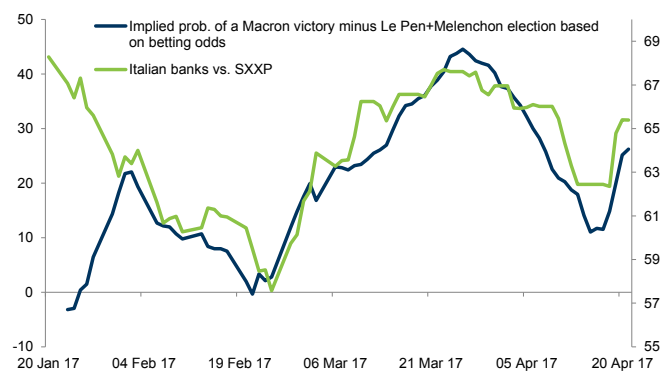
As we argued in *Frexit: what should you expect for European equities?* 15 March 2017, we think that Euro area risk assets have been the most sensitive to developments in the French electoral campaign. **Hence, we expect today's results to generate some relief for the FTSE MIB, French and Italian banks and a very minor relief for the CAC 40. That said, as this has largely been the central expectation priced into the markets, we would expect any rally to be modest.** The two charts below show the extent to which these stocks have been sensitive to bookmakers' odds during the election campaign.

Exhibit 6: The FTSE MIB has been very sensitive to developments in the French electoral campaign...



Source: Bloomberg, Datastream, Goldman Sachs Global Investment Research

Exhibit 7: ... as have Italian banks



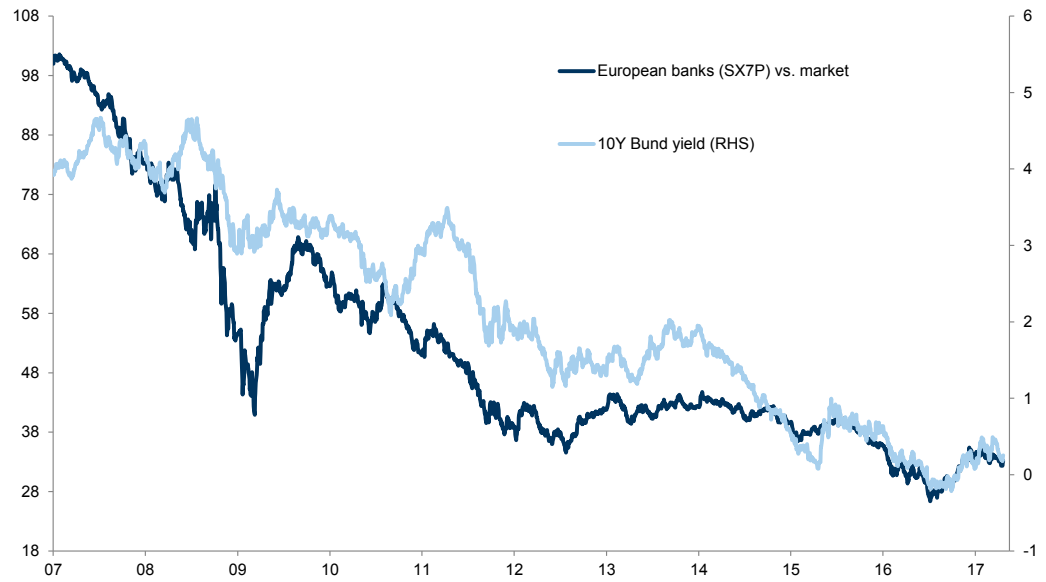
Source: Bloomberg, Datastream, Goldman Sachs Global Investment Research

Although the performance of broad European banks has not closely tracked developments in the French electoral campaign, we still expect a small positive reaction for Banks on an absolute basis, as tail risk uncertainty decreases (as was the case after the Dutch election). Italian and French banks should be the main beneficiaries of today's results (e.g., BNP and Unicredit, both Buy-rated by our analysts), particularly if bond yields rise and sovereign spreads narrow.

However, not all the underperformance of Banks since the beginning of the year owes to election risks. As shown in the chart below, the performance of Banks remains closely dependent on interest rates. Of course, part of the fall in German bond yields has been driven by the election uncertainty premium, provoking a flight to quality into German assets, but it has also reflected the unwinding of reflationary hopes. In conclusion, we think that if **the tail risk of the election of a Eurosceptic candidate such as Ms. Le Pen were completely removed, this would only modestly lift European banks.**



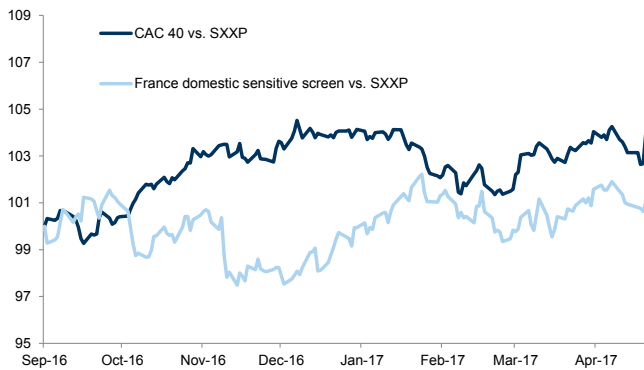
Exhibit 8: European banks have been mainly dependent on the evolution of bond yields



Source: Datastream, Goldman Sachs Global Investment Research

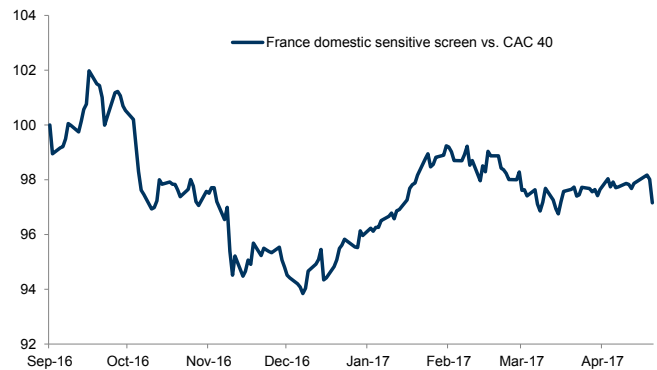
French domestic stocks and the CAC 40 have not underperformed significantly as of late and we do not expect them to rally materially following today’s results, or after the second round of the election. As we have highlighted in a previous note, the CAC 40 has strong international exposure and a reasonably supportive sector composition, notably in comparison with the FTSE MIB. In addition, the French economy is likely to be more resilient than the periphery economies in the event France leaves the Euro area (which would heighten the probability of a Euro area break-up).

Exhibit 9: The CAC 40 and French domestic stocks have not underperformed significantly



Source: Datasatream, Goldman Sachs, Goldman Sachs Global Investment Research

Exhibit 10: French domestic stocks have not underperformed the CAC 40 to any significant extent



Source: Goldman Sachs, Goldman Sachs Global Investment Research

Lilia Peytavin and Peter Oppenheimer



Rates - Bund yields should return to January levels

Since January, the country-specific risk premium priced in OATs and in other periphery markets saw a strong increase, which we have discussed [here](#) and [here](#).

The 10-year OAT Bund spread closed on Friday around 70bp, or two standard deviations too wide relative to our measure of macro fair value. On account of tonight's result, we would expect the spread to narrow to around 50-55bp, and Bund yields to rise towards 30bp.

We expect some election uncertainty to continue to be priced into EMU spreads in the period to the second round, and French bonds to continue to trade more idiosyncratically than has been the case since the start of QE.

We would expect a similar re-pricing in intra-EMU spreads in the periphery markets, where BTPs and Bonos spreads to Bunds could go back to trading closer to a range of 170-190bp in coming weeks (from around 200bp on Friday's close) and 120-130bp (from around 140bp on Friday) respectively. We think that political uncertainty around the Italian political outlook will weigh on BTPs.

Francesco Garzarelli, Alexander Demyanets* and **Matteo Crimella****

**Alexander is a senior economist in the Interest Rates Strategy team. ** Matteo is an intern in the Global Macro and Markets Team*



FX - a modest positive for the Euro

So far in FX space, the initial market reaction has been positive, with EUR/USD at 1.09, from 1.0708 as of Friday's closing. Going into the second round, our Economists' base case remains that Ms. Le Pen is unlikely to be able to broaden her base sufficiently to become the next President. That said, from here on, markets will be focusing on Ms. Le Pen's campaign rhetoric and on the polls. In order to improve her chances of being elected, Ms. Le Pen is likely to soften her anti-Euro stance to appeal to more moderate voters. We expect the currency to strengthen if uncertainty around a possible break-up of the Euro area is priced out. On the other hand, if Ms. Le Pen campaigns on an anti-Euro platform, the pressure on the currency will remain until the second-round election removes this uncertainty.

In our *FX Views*, "[The Euro and Frexit](#)" we quantified the impact on the Euro crosses versus G10 currencies due to changes in the probability of Ms. Le Pen becoming President and to the probability that investors assign to a break-up of the Euro area. First, we quantify the impact of a 10pp decrease in the odds of a Le Pen presidency on the various Euro crosses and find that, among the G-10 crosses, EUR/USD would increase the most (about 2%) and EUR/NOK the least (about 0.5%), while EUR/SEK would show a slight depreciation. Should the probability investors assign to Ms. Le Pen becoming President become very negligible (close to 0%), EUR/USD could appreciate by around 5%, reaching around 1.13. We do not find any statistically significant effect of a change in the odds of a Le Pen presidency on the EUR/CEE crosses (HUF, PLN, RON, CZK), with the estimated betas being very small.

Second, we estimate the betas of different EUR crosses to changes in the Sentix indicator, which measures the probability that investors assign to a break-up of the Euro area over the next 12 months. On our estimates, a reduction in break-up risk to 10% would lead to a slight appreciation of the EUR versus the major G10 currencies. The indicator has declined from 25% in February to 18% in March and a 10% decline would put it closer to its lows (7%) in July 2014. In our view, it is unlikely that investors will completely price out Euro area break-up risk given the rise of Eurosceptic parties in other members of the monetary union. Once again, we do not find any statistically significant effect on EUR/CEE crosses (HUF, PLN, RON, CZK), with the estimated betas being very small. This may simply reflect the close ties of these economies to the Euro area and the fact that CEE central banks have adjusted policy in the past to prevent sharp changes to their currencies.



In summary, our analysis suggests that a decrease in the probability that investors assign to Ms. Le Pen becoming President or to a break-up of the Euro area that is close to its lows in July 2014 could push the EUR higher versus the USD and the JPY, pushing EUR/USD close to 1.13. That said, how positive and persistent the market reaction will be after the election will depend on other factors, including the economic and inflation outlook and communication from the ECB at this week meeting and other central banks on the near-term policy stance. Political uncertainty and the threat of a break-up of the Euro area will remain a latent risk that is likely to resurface at times, with the next pressure point being the Italian elections, which are likely to take place in 2018Q1.

Silvia Ardagna & Rohan Khanna



Disclosure Appendix

Reg AC

We, Peter Oppenheimer and Lilia Peytavin, hereby certify that all of the views expressed in this report accurately reflect our personal views about the subject company or companies and its or their securities. We also certify that no part of our compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

We, Huw Pill, Francesco Garzarelli, Silvia Ardagna, Alain Durré and Pierre Vernet, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

Unless otherwise stated, the individuals listed on the cover page of this report are analysts in Goldman Sachs' Global Investment Research division.

Disclosures

Distribution of ratings/investment banking relationships

Goldman Sachs Investment Research global Equity coverage universe

	Rating Distribution			Investment Banking Relationships		
	Buy	Hold	Sell	Buy	Hold	Sell
Global	33%	53%	14%	63%	57%	50%

As of April 1, 2017, Goldman Sachs Global Investment Research had investment ratings on 2,857 equity securities. Goldman Sachs assigns stocks as Buys and Sells on various regional Investment Lists; stocks not so assigned are deemed Neutral. Such assignments equate to Buy, Hold and Sell for the purposes of the above disclosure required by the FINRA Rules. See 'Ratings, Coverage groups and views and related definitions' below. The Investment Banking Relationships chart reflects the percentage of subject companies within each rating category for whom Goldman Sachs has provided investment banking services within the previous twelve months.

Disclosures required by United States laws and regulations

See company-specific regulatory disclosures above for any of the following disclosures required as to companies referred to in this report: manager or co-manager in a pending transaction; 1% or other ownership; compensation for certain services; types of client relationships; managed/co-managed public offerings in prior periods; directorships; for equity securities, market making and/or specialist role. Goldman Sachs trades or may trade as a principal in debt securities (or in related derivatives) of issuers discussed in this report.

The following are additional required disclosures: **Ownership and material conflicts of interest:** Goldman Sachs policy prohibits its analysts, professionals reporting to analysts and members of their households from owning securities of any company in the analyst's area of coverage.

Analyst compensation: Analysts are paid in part based on the profitability of Goldman Sachs, which includes investment banking revenues. **Analyst as officer or director:** Goldman Sachs policy prohibits its analysts, persons reporting to analysts or members of their households from serving as an officer, director, advisory board member or employee of any company in the analyst's area of coverage. **Non-U.S. Analysts:** Non-U.S. analysts may not be associated persons of Goldman, Sachs & Co. and therefore may not be subject to FINRA Rule 2241 or FINRA Rule 2242 restrictions on communications with subject company, public appearances and trading securities held by the analysts.

Additional disclosures required under the laws and regulations of jurisdictions other than the United States

The following disclosures are those required by the jurisdiction indicated, except to the extent already made above pursuant to United States laws and regulations. **Australia:** Goldman Sachs Australia Pty Ltd and its affiliates are not authorised deposit-taking institutions (as that term is defined in the Banking Act 1959 (Cth)) in Australia and do not provide banking services, nor carry on a banking business, in Australia. This research, and any access to it, is intended only for "wholesale clients" within the meaning of the Australian Corporations Act, unless otherwise agreed by Goldman Sachs. In producing research reports, members of the Global Investment Research Division of Goldman Sachs Australia may attend site visits and other meetings hosted by the issuers the subject of its research reports. In some instances the costs of such site visits or meetings may be met in part or in whole by the issuers concerned if Goldman Sachs Australia considers it is appropriate and reasonable in the specific circumstances relating to the site visit or meeting. **Brazil:** Disclosure information in relation to CVM Instruction 483 is available at <http://www.gs.com/worldwide/brazil/area/gir/index.html>. Where applicable, the Brazil-registered analyst primarily responsible for the content of this research report, as defined in Article 16 of CVM Instruction 483, is the first author named at the beginning of this report, unless indicated otherwise at the end of the text. **Canada:** Goldman Sachs Canada Inc. is an affiliate of The Goldman Sachs Group Inc. and therefore is included in the company specific disclosures relating to Goldman Sachs (as defined above). Goldman Sachs Canada Inc. has approved of, and agreed to take responsibility for, this research report in Canada if and to the extent that Goldman Sachs Canada Inc. disseminates this research report to its clients. **Hong Kong:** Further information on the securities of covered companies referred to in this research may be obtained on request from Goldman Sachs (Asia) L.L.C. **India:** Further information on the subject company or companies referred to in this research may be obtained from Goldman Sachs (India) Securities Private Limited, Research Analyst - SEBI Registration Number INH000001493, 951-A, Rational House, Appasaheb Marathe Marg, Prabhadevi, Mumbai 400 025, India, Corporate Identity Number U74140MH2006FTC160634, Phone +91 22 6616 9000, Fax +91 22 6616 9001. Goldman Sachs may beneficially own 1% or more of the securities (as such term is defined in clause 2 (h) the Indian Securities Contracts (Regulation) Act, 1956) of the subject company or companies referred to in this research report. **Japan:** See below. **Korea:** Further information on the subject company or companies referred to in this research may be obtained from Goldman Sachs (Asia) L.L.C., Seoul Branch. **New Zealand:** Goldman Sachs New Zealand Limited and its affiliates are neither "registered banks" nor "deposit takers" (as defined in the Reserve Bank of New Zealand Act 1989) in New Zealand. This research, and any access to it, is intended for "wholesale clients" (as defined in the Financial Advisers Act 2008) unless otherwise agreed by Goldman Sachs. **Russia:** Research reports distributed in the Russian Federation are not advertising as defined in the Russian legislation, but are information and analysis not having product promotion as their main purpose and do not provide appraisal within the meaning of the Russian legislation on appraisal activity. **Singapore:** Further information on the covered companies referred to in this research may be obtained from Goldman Sachs (Singapore) Pte. (Company Number: 198602165W). **Taiwan:** This material is for reference only and must not be reprinted without permission. Investors should carefully consider their own investment risk. Investment results are the responsibility of the individual investor. **United Kingdom:** Persons who would be categorized as retail clients in the United Kingdom, as such term is defined in the rules of the Financial Conduct Authority, should read this research in conjunction with prior Goldman Sachs research on the covered companies referred to herein and should refer to the risk warnings that have been sent to them by Goldman Sachs International. A copy of these risks warnings, and a glossary of certain financial terms used in this report, are available from Goldman Sachs International on request.



European Union: Disclosure information in relation to Article 4 (1) (d) and Article 6 (2) of the European Commission Directive 2003/125/EC is available at <http://www.gs.com/disclosures/europeanpolicy.html> which states the European Policy for Managing Conflicts of Interest in Connection with Investment Research.

Japan: Goldman Sachs Japan Co., Ltd. is a Financial Instrument Dealer registered with the Kanto Financial Bureau under registration number Kinsho 69, and a member of Japan Securities Dealers Association, Financial Futures Association of Japan and Type II Financial Instruments Firms Association. Sales and purchase of equities are subject to commission pre-determined with clients plus consumption tax. See company-specific disclosures as to any applicable disclosures required by Japanese stock exchanges, the Japanese Securities Dealers Association or the Japanese Securities Finance Company.

Ratings, coverage groups and views and related definitions

Buy (B), Neutral (N), Sell (S) -Analysts recommend stocks as Buys or Sells for inclusion on various regional Investment Lists. Being assigned a Buy or Sell on an Investment List is determined by a stock's return potential relative to its coverage group as described below. Any stock not assigned as a Buy or a Sell on an Investment List is deemed Neutral. Each regional Investment Review Committee manages various regional Investment Lists to a global guideline of 25%-35% of stocks as Buy and 10%-15% of stocks as Sell; however, the distribution of Buys and Sells in any particular coverage group may vary as determined by the regional Investment Review Committee. Additionally, the regional Investment Review Committees each manage regional Conviction lists which represent investment recommendations focused on either the size of the potential return or the likelihood of the realization of the return. Addition or removal of stocks from such Conviction lists do not represent a change in the analysts' investment rating for such stocks.

Total return potential represents the upside or downside differential between the current share price and the price target, including all paid or anticipated dividends, expected during the time horizon associated with the price target. Price targets are required for all covered stocks. The total return potential, price target and associated time horizon are stated in each report adding or reiterating an Investment List membership.

Coverage groups and views: A list of all stocks in each coverage group is available by primary analyst, stock and coverage group at <http://www.gs.com/research/hedge.html>. The analyst assigns one of the following coverage views which represents the analyst's investment outlook on the coverage group relative to the group's historical fundamentals and/or valuation. **Attractive (A).** The investment outlook over the following 12 months is favorable relative to the coverage group's historical fundamentals and/or valuation. **Neutral (N).** The investment outlook over the following 12 months is neutral relative to the coverage group's historical fundamentals and/or valuation. **Cautious (C).** The investment outlook over the following 12 months is unfavorable relative to the coverage group's historical fundamentals and/or valuation.

Not Rated (NR). The investment rating and target price have been removed pursuant to Goldman Sachs policy when Goldman Sachs is acting in an advisory capacity in a merger or strategic transaction involving this company and in certain other circumstances. **Rating Suspended (RS).** Goldman Sachs Research has suspended the investment rating and price target for this stock, because there is not a sufficient fundamental basis for determining, or there are legal, regulatory or policy constraints around publishing, an investment rating or target. The previous investment rating and price target, if any, are no longer in effect for this stock and should not be relied upon. **Coverage Suspended (CS).** Goldman Sachs has suspended coverage of this company. **Not Covered (NC).** Goldman Sachs does not cover this company. **Not Available or Not Applicable (NA).** The information is not available for display or is not applicable. **Not Meaningful (NM).** The information is not meaningful and is therefore excluded.

Global product; distributing entities

The Global Investment Research Division of Goldman Sachs produces and distributes research products for clients of Goldman Sachs on a global basis. Analysts based in Goldman Sachs offices around the world produce equity research on industries and companies, and research on macroeconomics, currencies, commodities and portfolio strategy. This research is disseminated in Australia by Goldman Sachs Australia Pty Ltd (ABN 21 006 797 897); in Brazil by Goldman Sachs do Brasil Corretora de Títulos e Valores Mobiliários S.A.; in Canada by either Goldman Sachs Canada Inc. or Goldman, Sachs & Co.; in Hong Kong by Goldman Sachs (Asia) L.L.C.; in India by Goldman Sachs (India) Securities Private Ltd.; in Japan by Goldman Sachs Japan Co., Ltd.; in the Republic of Korea by Goldman Sachs (Asia) L.L.C., Seoul Branch; in New Zealand by Goldman Sachs New Zealand Limited; in Russia by OOO Goldman Sachs; in Singapore by Goldman Sachs (Singapore) Pte. (Company Number: 198602165W); and in the United States of America by Goldman, Sachs & Co. Goldman Sachs International has approved this research in connection with its distribution in the United Kingdom and European Union.

European Union: Goldman Sachs International authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority, has approved this research in connection with its distribution in the European Union and United Kingdom; Goldman Sachs AG and Goldman Sachs International Zweigniederlassung Frankfurt, regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht, may also distribute research in Germany.

General disclosures

This research is for our clients only. Other than disclosures relating to Goldman Sachs, this research is based on current public information that we consider reliable, but we do not represent it is accurate or complete, and it should not be relied on as such. The information, opinions, estimates and forecasts contained herein are as of the date hereof and are subject to change without prior notification. We seek to update our research as appropriate, but various regulations may prevent us from doing so. Other than certain industry reports published on a periodic basis, the large majority of reports are published at irregular intervals as appropriate in the analyst's judgment.

Goldman Sachs conducts a global full-service, integrated investment banking, investment management, and brokerage business. We have investment banking and other business relationships with a substantial percentage of the companies covered by our Global Investment Research Division. Goldman, Sachs & Co., the United States broker dealer, is a member of SIPC (<http://www.sipc.org>).

Our salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies to our clients and principal trading desks that reflect opinions that are contrary to the opinions expressed in this research. Our asset management area, principal trading desks and investing businesses may make investment decisions that are inconsistent with the recommendations or views expressed in this research.

The analysts named in this report may have from time to time discussed with our clients, including Goldman Sachs salespersons and traders, or may discuss in this report, trading strategies that reference catalysts or events that may have a near-term impact on the market price of the equity securities discussed in this report, which impact may be directionally counter to the analyst's published price target expectations for such stocks. Any such trading strategies are distinct from and do not affect the analyst's fundamental equity rating for such stocks, which rating reflects a stock's return potential relative to its coverage group as described herein.

We and our affiliates, officers, directors, and employees, excluding equity and credit analysts, will from time to time have long or short positions in, act as principal in, and buy or sell, the securities or derivatives, if any, referred to in this research.

The views attributed to third party presenters at Goldman Sachs arranged conferences, including individuals from other parts of Goldman Sachs, do not necessarily reflect those of Global Investment Research and are not an official view of Goldman Sachs.



Any third party referenced herein, including any salespeople, traders and other professionals or members of their household, may have positions in the products mentioned that are inconsistent with the views expressed by analysts named in this report.

This research is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Clients should consider whether any advice or recommendation in this research is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. The price and value of investments referred to in this research and the income from them may fluctuate. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Fluctuations in exchange rates could have adverse effects on the value or price of, or income derived from, certain investments.

Certain transactions, including those involving futures, options, and other derivatives, give rise to substantial risk and are not suitable for all investors. Investors should review current options disclosure documents which are available from Goldman Sachs sales representatives or at <http://www.theocc.com/about/publications/character-risks.jsp>. Transaction costs may be significant in option strategies calling for multiple purchase and sales of options such as spreads. Supporting documentation will be supplied upon request.

All research reports are disseminated and available to all clients simultaneously through electronic publication to our internal client websites. Not all research content is redistributed to our clients or available to third-party aggregators, nor is Goldman Sachs responsible for the redistribution of our research by third party aggregators. For research, models or other data available on a particular security, please contact your sales representative or go to <http://360.gs.com>.

Disclosure information is also available at <http://www.gs.com/research/hedge.html> or from Research Compliance, 200 West Street, New York, NY 10282.

© 2017 Goldman Sachs.

No part of this material may be (i) copied, photocopied or duplicated in any form by any means or (ii) redistributed without the prior written consent of The Goldman Sachs Group, Inc.

