Swiss real estate market

UBS Swiss Real Estate Bubble Index 2Q 2015

4 August 2015

Translation: 3 August 2015

Chief Investment Office WM

Matthias Holzhey, economist, matthias.holzhey@ubs.com; **Claudio Saputelli**, economist, claudio.saputelli@ubs.com

- The *UBS Swiss Real Estate Bubble Index* stood at 1.37 points – in the risk zone – after a significant increase in the second quarter of 2015. This was the strongest increase since the fourth quarter of 2012.
- Home prices and mortgages for private households went up excessively considering the weak economy.
- The housing market is still caught up in the investment property boom. Loan applications for non-owner-occupied condominiums remained near their all-time high in the second quarter of 2015.

The *UBS Swiss Real Estate Bubble Index* stood at 1.37 points in the second quarter of 2015. In other words, the index rose 0.10 points within the risk zone compared to the previous quarter. This was the strongest increase since the fourth quarter of 2012. The mortgage volume of private households expanded around 3.5% year-on-year, while home prices showed a nominal increase of nearly 2%. While such growth rates appear to be rather moderate historically speaking, they are relatively high given the stagnating output of the economy and the significant decline in consumer prices. The general flattening of debt and price momentum, which had started in the beginning of 2014, also stopped in the past half year.

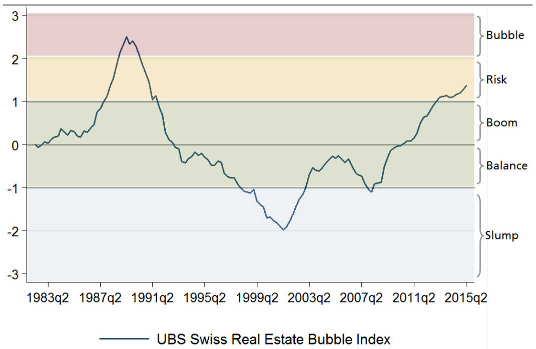
The index increase confirms that we are far from giving an all-clear signal for the housing market. Not only is demand for owner-occupied homes still high due to the low mortgage rates, but investor demand for real estate has also gained heft in the home market.

Methodology

The UBS Swiss Real Estate Bubble Index comprises six sub-indices that track: the relationship between purchase and rental prices, the relationship between house prices and household income, the relationship between house prices and inflation, the relationship between mortgage debt and income, the relationship between construction and gross domestic product (GDP) and the proportion of credit applications by UBS clients for residential property not intended for owner occupancy. The UBS Swiss Real Estate Bubble Index is calculated as the average of trend-adjusted and standardized indicators weighted using a principal component analysis. The index level shows the deviation in standard deviations from the average, which is normalized to zero.

The index value is categorized into one of five levels: slump (below -1), balance (between -1 and 0), boom (between 0 and 1), risk (between 1 and 2) and bubble (above 2).

UBS Swiss Real Estate Bubble Index



Source: UBS

Index performance

		Index
2012	Quarter 1	0.64
	Quarter 2	0.66
	Quarter 3	0.80
	Quarter 4	0.91
2013	Quarter 1	1.01
	Quarter 2	1.11
	Quarter 3	1.12
	Quarter 4	1.14
2014	Quarter 1	1.10
	Quarter 2	1.11
	Quarter 3	1.16
	Quarter 4	1.20
2015	Quarter 1	1.27
	Quarter 2	1.37

Source: UBS

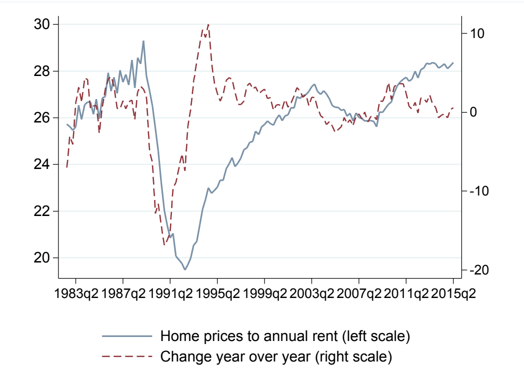
As a result of a revision of the data, the index values have been adjusted. Since the sub-indices carry different weights, small adjustments may also be made each quarter.

Swiss real estate market

Sub-indices of the *UBS Swiss Real Estate Bubble Index*

Owner-occupied home prices relative to annual rent payments
Purchase prices rose 0.5% quarter-on-quarter in nominal terms, while rents increased a mere 0.2%. The price-to-rent ratio thus went up slightly in the second quarter of 2015 and currently stands at 28.4. The indicator has been moving sideways for more than two years now. However, it currently stands well above the long-term equilibrium of about 25.

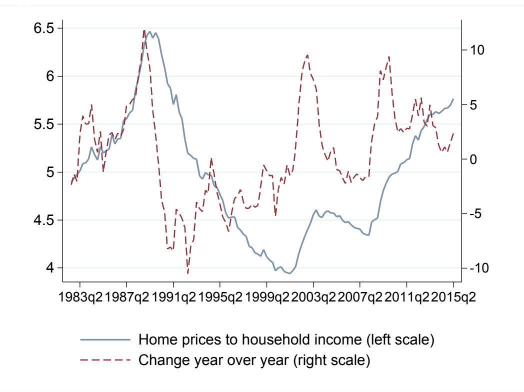
Home prices relative to annual rent
Level and change year-over-year in percent



Source: SNB; UBS

Owner-occupied house prices relative to household income
In the second quarter of 2015, owner-occupied home prices grew faster than household incomes. Given the worsening economic situation, we estimate that household incomes declined 0.5%. Approximately 5.8 annual household incomes were needed to purchase a home in the medium price segment. The long-term average is five annual incomes.

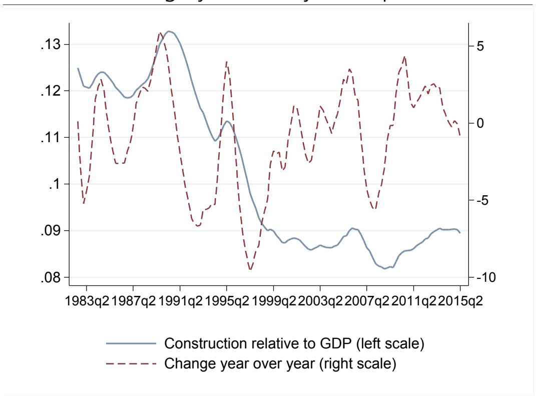
Home prices relative to household income
Level and change year-over-year in percent



Source: SNB; FSO; UBS

Construction relative to gross domestic product (GDP)
Construction investment improved somewhat in the second quarter of 2015 and thus slightly outperformed the overall economy. However, the increase was too weak to offset the declines from previous quarters. Construction's contribution to gross domestic product is currently 8.8%. The long-term average value lies at 10.3%.

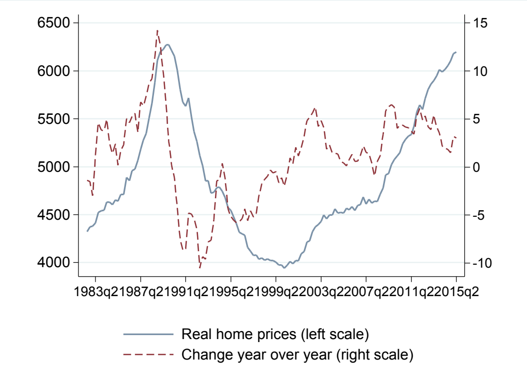
Construction relative to gross domestic product
Level and change year-over-year in percent



Source: seco; FSO; UBS

Owner-occupied home prices relative to consumer prices
Real home prices, calculated as the average value of prices for single-family homes and condominiums, were virtually stagnant quarter-on-quarter, but were still up 3.0% year-on-year. If prices continue to rise, they will exceed the peak of the latest real estate bubble from 1990 by the end of the year.

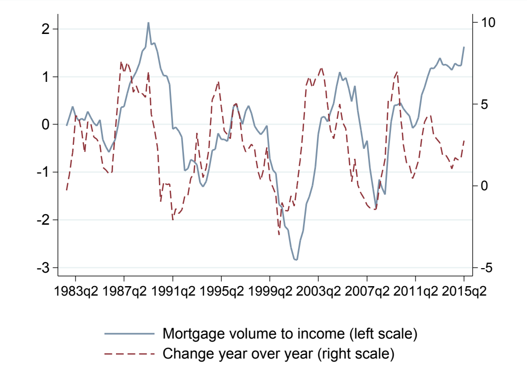
Home prices relative to consumer prices
Real home prices (CHF/m²) and change year-over-year in percent



Source: SNB; FSO; UBS

Mortgage volume relative to disposable household income
Mortgage volumes rose 3.5% year-on-year in the second quarter of 2015, which is still faster than at the end of 2014. Debt momentum had been flattening out, but this trend seems to have stopped. Since this coincided with a decline in household incomes, the indicator went up significantly compared to the previous quarter.

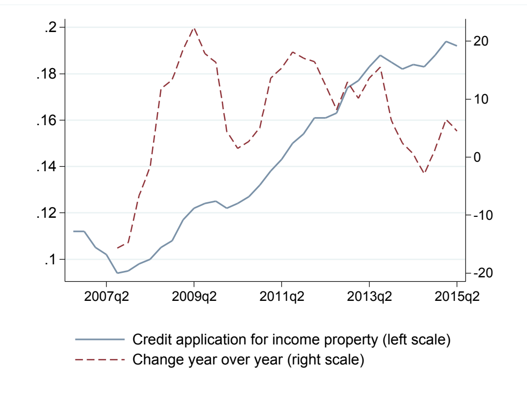
Mortgage volume relative to income
Mortgage debt of private households relative to income (detrended series) and change year-over-year in percent



Source: SNB; FSO; UBS

UBS loan applications for real estate intended for leasing
The number of loan applications for non-owner-occupied properties dipped slightly. In the second quarter of 2015, 19.2% of all credit applications were for properties not intended for self-occupancy. Negative interest rates should initially sustain the strong demand for condominiums as investment properties.

Credit applications for residential property not intended for self-occupancy
Share of total and change year-over-year in percent



Source: UBS

Regions with risk potential for the residential real estate market

The risk map has changed to reflect the increase in the real estate bubble index. The Lucerne region has joined the ranks of exposed regions due to increased imbalances. Lucerne currently still shows the strongest price growth rates of all the exposed regions except Innerschwyz. Appenzell Innerrhoden – where prices have risen nearly 70% in the last 10 years – has now joined the monitoring regions.

Methodology

Our selection of exposed regions is tied to the level of the UBS Swiss Real Estate Bubble Index and is based on a multi-level selection process utilizing regional population and property price data.

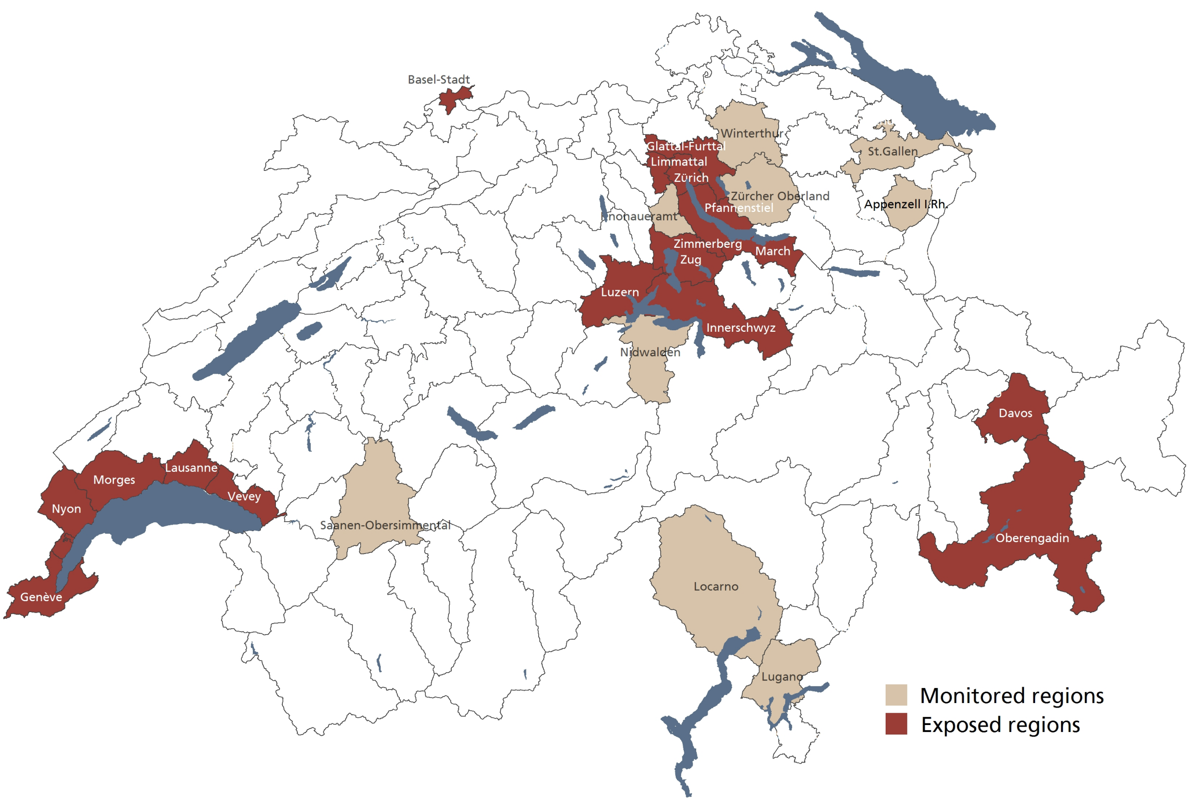
Exposed regions	Monitored regions
Zürich	Knonaueramt
Glattal-Furttal	Zürcher Oberland
Limmattal	Winterthur
Zimmerberg	Saanen-Obersimmental
Pfannenstiel	Nidwalden
Innerschwyz	St.Gallen
March	Locarno
Zug	Lugano
Luzern*	Appenzell I.Rh.**
Basel-Stadt	
Davos	
Oberengadin	
Lausanne	
Morges	
Nyon	
Vevey	
Genève	

** in the previous quarter classified as monitored region*

*** added in 2Q 2015*

Regional risk map - 2Q 2015

Exposed and monitored regions for the Swiss residential real estate market



Source: UBS

Appendix

UBS Chief Investment Office WM's investment views are prepared and published by Wealth Management and Retail & Corporate or Wealth Management Americas, Business Divisions of UBS AG (regulated by FINMA in Switzerland), its subsidiary or affiliate ("UBS"). In certain countries UBS AG is referred to as UBS SA. This material is for your information only and is not intended as an offer, or a solicitation of an offer, to buy or sell any investment or other specific product. Certain services and products are subject to legal restrictions and cannot be offered worldwide on an unrestricted basis and/or may not be eligible for sale to all investors. All information and opinions expressed in this material were obtained from sources believed to be reliable and in good faith, but no representation or warranty, express or implied, is made as to its accuracy or completeness (other than disclosures relating to UBS). All information and opinions as well as any prices indicated are current as of the date of this report, and are subject to change without notice. The market prices provided in performance charts and tables are closing prices on the respective principal stock exchange. The analysis contained herein is based on numerous assumptions. Different assumptions could result in materially different results. Opinions expressed herein may differ or be contrary to those expressed by other business areas or divisions of UBS as a result of using different assumptions and/or criteria. UBS and any of its directors or employees may be entitled at any time to hold long or short positions in investment instruments referred to herein, carry out transactions involving relevant investment instruments in the capacity of principal or agent, or provide any other services or have officers, who serve as directors, either to/for the issuer, the investment instrument itself or to/for any company commercially or financially affiliated to such issuers. At any time, investment decisions (including whether to buy, sell or hold securities) made by UBS and its employees may differ from or be contrary to the opinions expressed in UBS research publications. Some investments may not be readily realizable since the market in the securities is illiquid and therefore valuing the investment and identifying the risk to which you are exposed may be difficult to quantify. UBS relies on information barriers to control the flow of information contained in one or more areas within UBS, into other areas, units, divisions or affiliates of UBS. Futures and options trading is considered risky. Past performance of an investment is no guarantee for its future performance. Additional information will be made available upon request. Some investments may be subject to sudden and large falls in value and on realization you may receive back less than you invested or may be required to pay more. Changes in foreign exchange rates may have an adverse effect on the price, value or income of an investment. The analyst(s) responsible for the preparation of this report may interact with trading desk personnel, sales personnel and other constituencies for the purpose of gathering, synthesizing and interpreting market information. Tax treatment depends on the individual circumstances and may be subject to change in the future. UBS does not provide legal or tax advice and makes no representations as to the tax treatment of assets or the investment returns thereon both in general or with reference to specific client's circumstances and needs. We are of necessity unable to take into account the particular investment objectives, financial situation and needs of our individual clients and we would recommend that you take financial and/or tax advice as to the implications (including tax) of investing in any of the products mentioned herein. This material may not be reproduced or copies circulated without prior authority of UBS. UBS expressly prohibits the distribution and transfer of this material to third parties for any reason. UBS accepts no liability whatsoever for any claims or lawsuits from any third parties arising from the use or distribution of this material. This report is for distribution only under such circumstances as may be permitted by applicable law. In developing the Chief Investment Office (CIO) economic forecasts, CIO economists worked in collaboration with economists employed by UBS Investment Research. Forecasts and estimates are current only as of the date of this publication and may change without notice. For information on the ways in which UBS CIO WM manages conflicts and maintains independence of its investment views and publication offering, and research and rating methodologies, please visit www.ubs.com/research. Additional information on the relevant authors of this publication and other CIO publication(s) referenced in this report; and copies of any past reports on this topic; are available upon request from your client advisor.

External Asset Managers / External Financial Consultants: In case this research or publication is provided to an External Asset Manager or an External Financial Consultant, UBS expressly prohibits that it is redistributed by the External Asset Manager or the External Financial Consultant and is made available to their clients and/or third parties. **Australia: 1) Clients of UBS Wealth Management Australia Ltd:** This notice is issued by UBS Wealth Management Australia Ltd ABN 50 005 311 937 (Holder of Australian Financial Services Licence No. 231127): This Document is general in nature and does not constitute personal financial product advice. The Document does not take into account any person's objectives, financial situation or needs, and a recipient should obtain advice from an independent financial adviser and consider any relevant offer or disclosure document prior to making any investment decisions. **2) Clients of UBS AG:** This notice is issued by UBS AG ABN 47 088 129 613 (Holder of Australian Financial Services Licence No 231087): This Document is issued and distributed by UBS AG. This is the case despite anything to the contrary in the Document. The Document is intended for use only by "Wholesale Clients" as defined in section 761G ("Wholesale Clients") of the Corporations Act 2001 (Cth) ("Corporations Act"). In no circumstances may the Document be made available by UBS AG to a "Retail Client" as defined in section 761G of the Corporations Act. UBS AG's research services are only available to Wholesale Clients. The Document is general information only and does not take into account any person's investment objectives, financial and taxation situation or particular needs. **Bahamas:** This publication is distributed to private clients of UBS (Bahamas) Ltd and is not intended for distribution to persons designated as a Bahamian citizen or resident under the Bahamas Exchange Control Regulations. **Bahrain:** UBS AG is a Swiss bank not licensed, supervised or regulated in Bahrain by the Central Bank of Bahrain and does not undertake banking or investment business activities in Bahrain. Therefore, Clients have no protection under local banking and investment services laws and regulations. **Belgium:** This publication is not intended to constitute a public offering or a comparable solicitation under Belgian law, but might be made available for information purposes to clients of UBS Belgium, branch of UBS (Luxembourg) SA, registered with the National Bank of Belgian and authorized by the "Financial Services and Markets Authority", to which this publication has not been submitted for approval. **Brazil:** Prepared by UBS Brasil Administradora de Valores Mobiliários Ltda, entity regulated by Comissão de Valores Mobiliários ("CVM") **Canada:** In Canada, this publication is distributed to clients of UBS Wealth Management Canada by UBS Investment Management Canada Inc.. **Dubai:** Research is issued by UBS AG Dubai Branch within the DIFC, is intended for professional clients only and is not for onward distribution within the United Arab Emirates. **France:** This publication is distributed by UBS (France) S.A., French "société anonyme" with share capital of € 125.726.944, 69, boulevard Haussmann F-75008 Paris, R.C.S. Paris B 421 255 670, to its clients and prospects. UBS (France) S.A. is a provider of investment services duly authorized according to the terms of the "Code Monétaire et Financier", regulated by French banking and financial authorities as the "Autorité de Contrôle Prudentiel et de Résolution." **Germany:** The issuer under German Law is UBS Deutschland AG, Bockenheimer Landstrasse 2-4, 60306 Frankfurt am Main. UBS Deutschland AG is authorized and regulated by the "Bundesanstalt für Finanzdienstleistungsaufsicht". **Hong Kong:** This publication is distributed to clients of UBS AG Hong Kong Branch by UBS AG Hong Kong Branch, a licensed bank under the Hong Kong Banking Ordinance and a registered institution under the Securities and Futures Ordinance. **India:** Distributed by UBS Securities India Private Ltd. 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. **Indonesia:** This research or publication is not intended and not prepared for purposes of public offering of securities under the Indonesian Capital Market Law and its implementing regulations. Securities mentioned in this material have not been, and will not be, registered under the Indonesian Capital Market Law and Regulations. **Israel:** UBS AG is registered as a Foreign Dealer in cooperation with UBS Wealth Management Israel Ltd, a wholly owned UBS subsidiary. UBS Wealth Management Israel Ltd is a licensed Portfolio Manager which engages also in Investment Marketing and is regulated by the Israel Securities Authority. This publication shall not replace any investment advice and/or investment marketing provided by a relevant licensee which is adjusted to your personal needs. Italy: This publication is distributed to the clients of UBS (Italia) S.p.A., via del vecchio politecnico 3, Milano, an Italian bank duly authorized by Bank of Italy to the provision of financial services and supervised by "Consob" and Bank of Italy. UBS Italia has not participated in the production of the publication and of the research on investments and financial analysis herein contained. **Jersey:** UBS AG, Jersey Branch, is regulated and authorized by the Jersey Financial Services Commission for the conduct of banking, funds and investment business. **Luxembourg:** This publication is not intended to constitute a public offer under Luxembourg law, but might be made available for information purposes to clients of UBS (Luxembourg) S.A., 33A avenue J.F. Kennedy, L-1855 Luxembourg, R.C.S. Luxembourg B 11142, a regulated bank under the supervision of the "Commission de Surveillance du Secteur Financier" (CSSF), to which this publication has not been submitted for approval. **Mexico:** This document has been distributed by UBS Asesores México, S.A. de C.V., a company which is not part of UBS Grupo Financiero, S.A. de C.V. or of any other Mexican financial group and whose obligations are not guaranteed by any third party. UBS Asesores México, S.A. de C.V. does not guarantee any yield whatsoever. **Netherlands:** This publication is not intended to constitute a public offering or a comparable solicitation under Dutch law, but might be made available for information purposes to clients of UBS Bank (Netherlands) B.V., a regulated bank under the supervision of "De Nederlansche Bank" (DNB) and "Autoriteit Financiële Markten" (AFM), to which this publication has not been submitted for approval. **New Zealand:** This notice is distributed to clients of UBS Wealth Management Australia Limited ABN 50 005 311 937 (Holder of Australian Financial Services Licence No. 231127), Chifley Tower, 2 Chifley Square, Sydney, New South Wales, NSW 2000, by UBS Wealth Management Australia Ltd. You are being provided with this UBS publication or material because you have indicated to UBS that you are a client certified as a wholesale investor and/or an eligible investor ("Certified Client") located in New Zealand. This publication or material is not intended for clients who are not Certified Clients ("Non-Certified Clients"), and if you are a Non-Certified Client you must not rely on this publication or material. If despite this warning you nevertheless rely on this publication or material, you hereby (i) acknowledge that you may not rely on the content of this publication or material and that any recommendations or opinions in this publication or material are not made or provided to you, and (ii) to the maximum extent permitted by law (a) indemnify UBS and its associates or related entities (and their respective directors, officers, agents and advisers (each a "Relevant Person") for any loss, damage, liability or claim any of them may incur or suffer as a result of, or in connection with, your unauthorised reliance on this publication or material and (b) waive any rights or remedies you may have against any Relevant Person for (or in respect of) any loss, damage, liability or claim you may incur or suffer as a result of, or in connection with, your unauthorised reliance on this publication or material. **Saudi Arabia:** This publication has been approved by UBS Saudi Arabia (a subsidiary of UBS AG), a Saudi Arabian 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 of Saudi Arabia. **Singapore:** Please contact UBS AG Singapore branch, an exempt financial adviser under the Singapore Financial Advisers Act (Cap. 110) and a wholesale bank licensed under the Singapore Banking Act (Cap. 19) regulated by the Monetary Authority of Singapore, in respect of any matters arising from, or in connection with, the analysis or report. **Spain:** This publication is distributed to clients of UBS Bank, S.A. by UBS Bank, S.A., a bank registered with the Bank of Spain. **Taiwan:** This material is provided in accordance with laws of Taiwan, in agreement with or at the request of clients. **UAE:** This research report is not intended to constitute an offer, sale or delivery of shares or other securities under the laws of the United Arab Emirates (UAE). The contents of this report have not been and will not be approved by any authority in the United Arab Emirates including the UAE Central Bank or Dubai Financial Authorities, the Emirates Securities and Commodities Authority, the Dubai Financial Market, the Abu Dhabi Securities market or any other UAE exchange. **UK:** Approved by UBS AG, authorised and regulated by the Financial Market Supervisory Authority in Switzerland. In the United Kingdom, UBS AG is authorised by the Prudential Regulation Authority and subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request. A member of the London Stock Exchange. This publication is distributed to private clients of UBS London in the UK. Where products or services are provided from outside the UK, they will not be covered by the UK regulatory regime or the Financial Services Compensation Scheme. **USA:** This document is not intended for distribution into the US and / or to US persons. UBS Securities LLC is a subsidiary of UBS AG and an affiliate of UBS Financial Services Inc., UBS Financial Services Inc. is a subsidiary of UBS AG.

Version 05/2015.