

# Rental Equipment Industry Survey #157

## Rental rate deterioration moderated in March; Highway Bill may be having some impact already

### Equities

Americas  
Heavy Machinery

Steven Fisher, CFA

Analyst

steven.fisher@ubs.com

+1-212-713 8634

Cleve Rueckert

Associate Analyst

cleve.rueckert@ubs.com

+1-212-713 4913

#### Business conditions improved YoY; Rental rates continue to weaken but less so

Business conditions continued to improve YoY, with the 6.17 aggregate score in March improving from the 5.40 seen in February. Rental rates, at 4.67, moderated from February's 4.30, but continued to weaken sequentially (a result below 5.00 indicates an aggregate sequential decline). The rental rate response was the lowest average March response since 2009 (Figure 8). Seasonally we would expect some improvement moving into the spring, but rental companies have guided to rate pressure in 2016.

#### Managers expect a strengthening impact from the Highway bill in 2016/17

We asked branch managers about their expectations on impacts from the Highway Bill in their area. Roughly 45% of managers are currently seeing an increase in highway spending, while 47% see no impact. Looking forward, 62% of managers expect a positive impact from the Highway Bill in 2016, and 79% of managers expect a positive impact in 2017, with managers expecting the stronger impact to come in 2017. However, responses indicate that gov't construction projects could have lower rental rates than private projects. Roughly 60% of managers said rates are the same, but 27% indicated rates are lower, 2% said rates are higher, while 12% did not know.

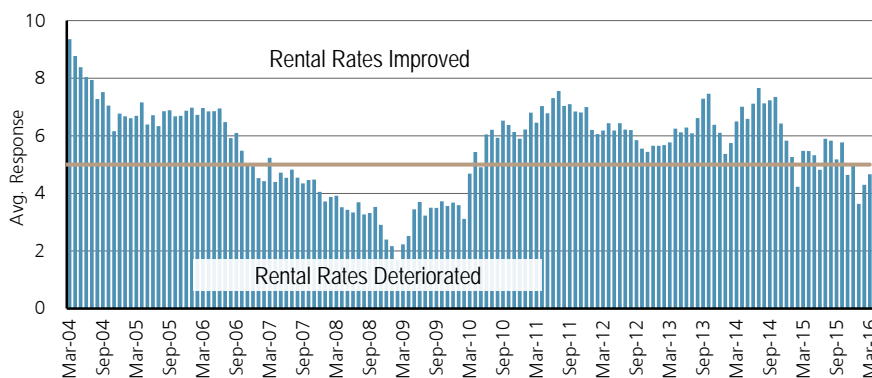
#### Managers expect non-res construction activity to improve somewhat in 2016

We asked branch managers about their expectations on non-residential construction activity in 2016 in their regions. Roughly 64% of the managers expect non-res spending to improve somewhat in 2016, while 19% expect it to be unchanged. Our analysis has shown a loose correlation between YoY change in U.S. non-residential construction activity and rental rate changes reported by URI and RSC (also now URI).

#### Maintain Neutral ratings on URI and HEES

Non-residential construction growth remains strong in 2016 year-to-date, but rental industry overcapacity remains a drag on pricing. We also expect overall non-res activity to slow later in 2016. The bull case for rental is that both private and public non-res growth continues in 2017 and capex cuts neutralize pricing, while rental companies execute strategic moves to further drive earnings growth.

Figure 1: Historical average responses to question on rental rates



Source: UBS Rental Equipment Branch Manager Surveys

[www.ubs.com/investmentresearch](http://www.ubs.com/investmentresearch)

This report has been prepared by UBS Securities LLC. **ANALYST CERTIFICATION AND REQUIRED DISCLOSURES BEGIN ON PAGE 13.** UBS 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.

# Rental Equipment Industry

UBS Research THESIS MAP

## PIVOTAL QUESTIONS

### Q: Will rental rates rebound in 2H16?

Given that we expect non-res activity to slow later in 2016 and used equipment prices are falling, we do not expect a rebound in rental rates in 2H. Lower levels of rental capex will help reduce overcapacity, which could help moderate the declines, but we do not expect a major pickup in high rate energy projects in 2016.

### Q: Is this the end of the cycle?

We think private non-residential construction spending could decline in 2017, but public sector spending should increase. Overall, we expect continued growth in non-residential spending in 2016, but flat spending in 2017.

[URI: Oil drives additional rate pressure: downgrading to Neutral \(1/28/16\)](#)

[HEES: Downgrading to Neutral, from Buy on further oil headwinds \(1/28/16\)](#)

## WHAT'S PRICED IN?

**Stocks have rebounded sharply and price in steady earnings, in our view.** After a rebound in rental industry stocks from recent lows (40% for URI, 75% for H&E), and with both URI and H&E trading at roughly 5x 2016E consensus EBITDA, we think a flat earnings outlook is priced in. The 5x EBITDA multiple is at or slightly above the historical average.

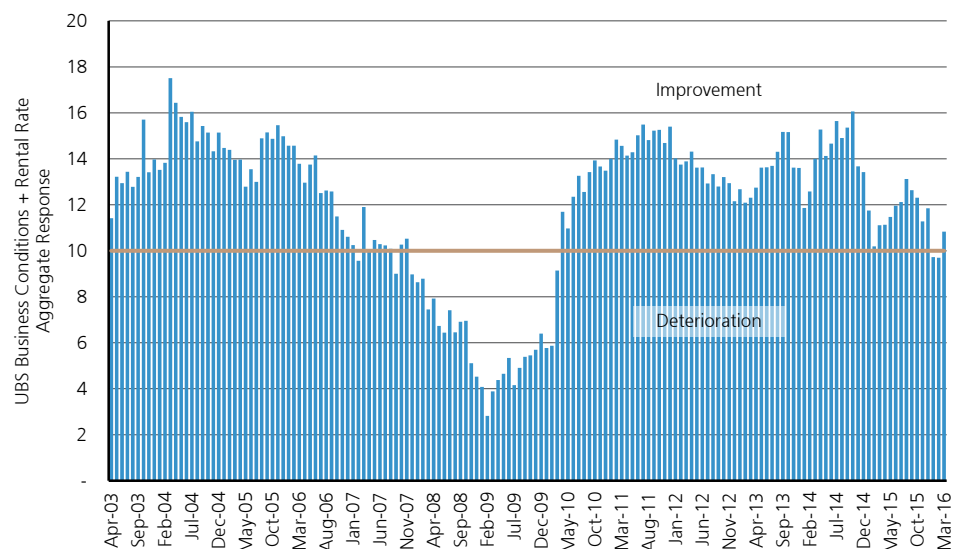
## UBS VIEW

While non-residential construction spending is starting the year off better than expected, we think the improvement in stock prices already reflects that rates will start to neutralize in 2H and earnings will be flat in 2017. We expect non-residential construction to slow later in 2016.

## EVIDENCE

US non-residential construction spending grew 11% YOY in January and February 2016, vs. single digits in the last quarter of 2015. Rental stocks trade at mid-cycle levels. Comparisons on non-res construction get tougher in the middle part of 2016.

### UBS Rental Equipment Survey Combined Business Conditions and Rental Rates



Source: UBS Rental Equipment Surveys

# Survey Results

## Question 1: Business conditions improve YoY

In the first question, we asked branch managers: *"In the month of March 2016, versus the month of March 2015, business conditions were..."* Branch managers were asked to select either, *"better than last year," "the same as last year"* or *"worse than last year."* We received 60 responses.

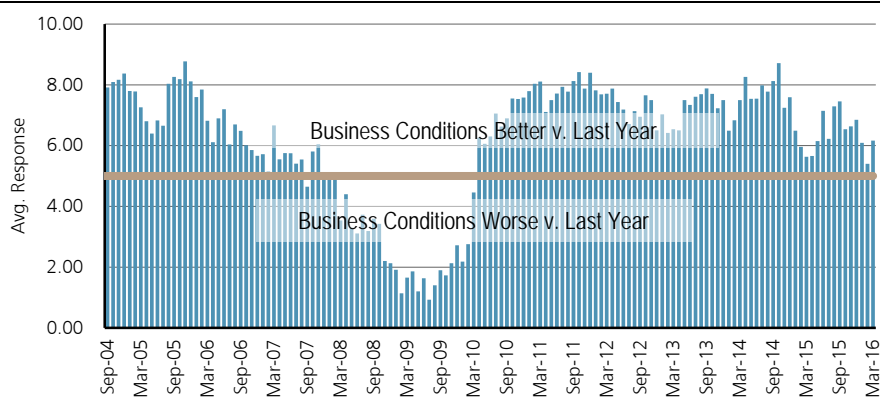
**Figure 2: Branch managers' indication of business conditions in March**

Region	Better than last year	Same as last year	Worse than last year
Gulf	29%	43%	29%
Midwest	33%	33%	33%
Northeast	60%	13%	27%
Northwest	43%	43%	14%
Southeast	67%	33%	0%
Southwest	38%	31%	31%
Total	47%	30%	23%

Source: UBS Rental Equipment Branch Manager Survey #157

We assigned numerical values to the responses (worse = 0, no change = 5, better = 10). For the current survey, **the average response was 6.17**, indicating improvement in business conditions YoY, and demonstrated a sequential improvement vs. 5.40 in February. The 6.17 aggregate response this year was also better than the 5.63 received in March 2015.

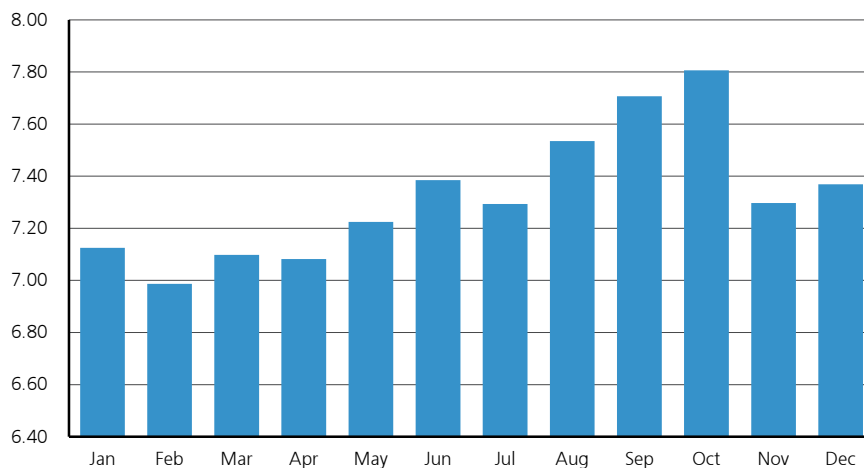
**Figure 3: Historical average responses to question on business conditions**



Source: UBS Rental Equipment Branch Manager Surveys

Seasonally, the response in the month of March tends to improve slightly from February.

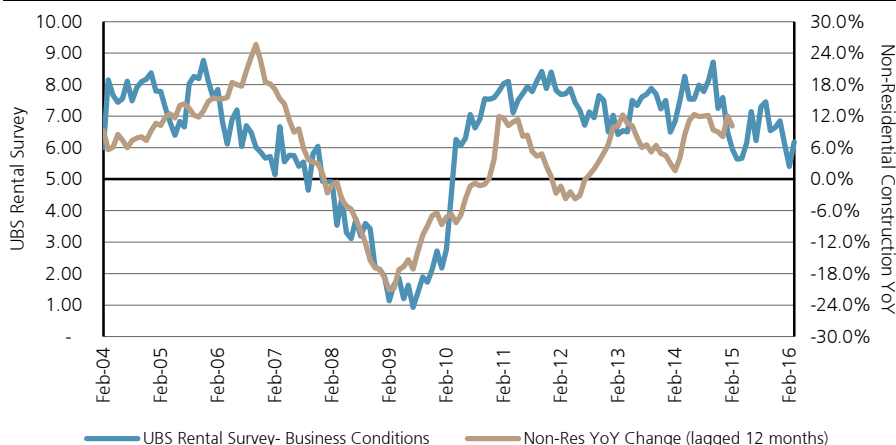
**Figure 4: Historical seasonality of responses on business conditions (5y avg)**



Source: UBS Rental Equipment Branch Manager Surveys

Given the end markets served by rental companies (primarily non-residential construction), we found a loose correlation between the year-over-year change in domestic non-residential construction activity and the business condition changes reported by branch managers in this survey. Reported changes in business conditions have historically been a leading indicator for changes in non-residential construction, with the correlation strongest when lagging non-res 12 months.

**Figure 5: UBS Rental Survey Business Conditions vs. YoY Changes in Non Res. Construction (lagged 12 months)**



Source: UBS Rental Equipment Branch Manager Surveys, U.S. Census Bureau

## Question 2: Rental rates showed marginal sequential improvement

In the second question, we asked branch managers: *"In the month of March, versus the month of February, your rental rates..."* Branch managers were asked to select either, *"improved," "stayed the same"* or *"deteriorated."* We received 60 responses.

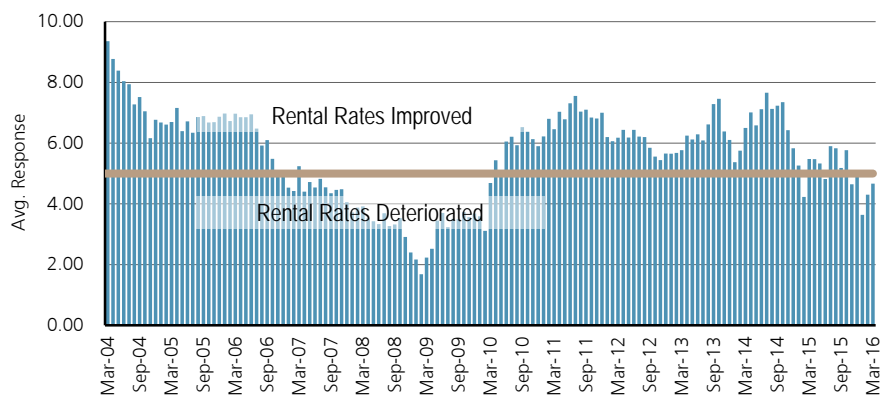
**Figure 6: Branch managers' indication of rental rates in March**

Region	Improved	Stayed the Same	Deteriorated
Gulf	14%	57%	29%
Midwest	22%	67%	11%
Northeast	20%	47%	33%
Northwest	29%	71%	0%
Southeast	11%	67%	22%
Southwest	0%	77%	23%
Total	15%	63%	22%

Source: UBS Rental Equipment Branch Manager Survey #157

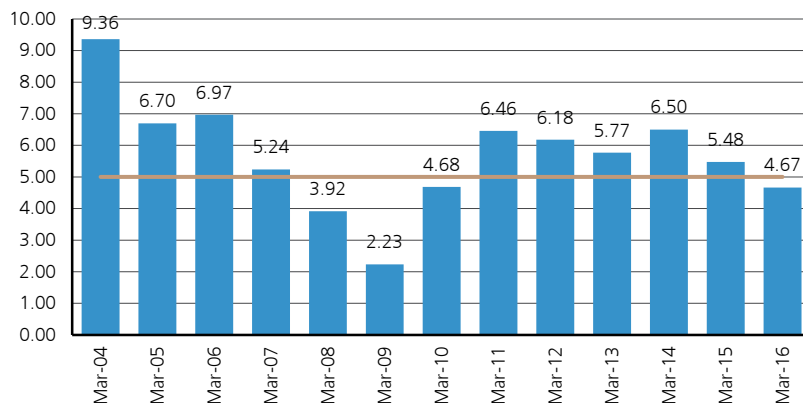
We assigned numerical values to the responses (deteriorated = 0, stayed the same = 5, improved = 10). For the current survey, **the average response was 4.67**. This was a more positive response than the 4.30 received last month, but below the 5.48 received in March 2015. This is the fifth result below 5 in the last 12 months, and the sixth response below 5 since June 2010, when rental rates began to improve (Figure 7).

**Figure 7: Historical average responses to question on rental rates**



Source: UBS Rental Equipment Branch Manager Surveys

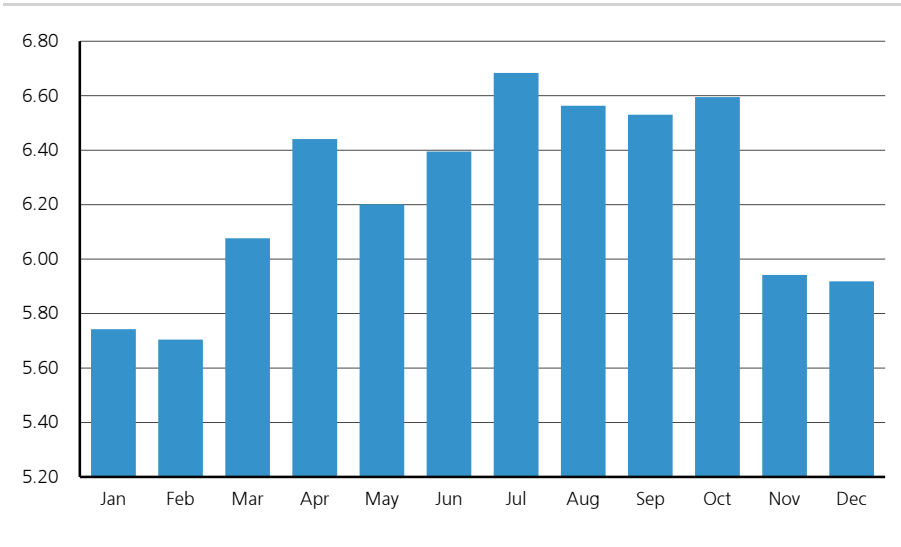
**Figure 8: Historical March responses to question on rental rates**



Source: UBS Rental Equipment Branch Manager Surveys

Seasonally, the response in the month of March tends to improve notably from February.

**Figure 9: Historical seasonality of responses on rental rates (5y avg)**

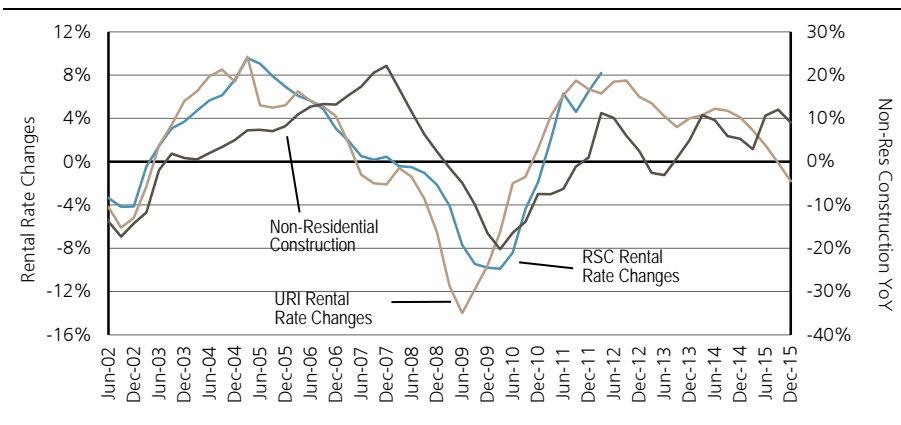


Source: UBS Rental Equipment Branch Manager Surveys

Given the end markets served by rental companies (primarily non-residential construction), we found a loose correlation between the year-over-year change in domestic non-residential construction activity and the rental rate changes reported by United Rentals and RSC Holdings, which is now owned by URI.

Intuitively, rental companies are able to raise rental rates in periods of strong demand for equipment, primarily resulting from higher construction spending as projects are under way... and conversely, rental rates tend to be pressured as demand deteriorates, and/or overcapacity exists. We also believe that rental rates had been benefitting from a secular shift or strong cyclical shift to rental.

**Figure 10: URI, RSC Rental Rate Changes vs. YoY Changes in Non Res. Construction**



Data is through December 2015

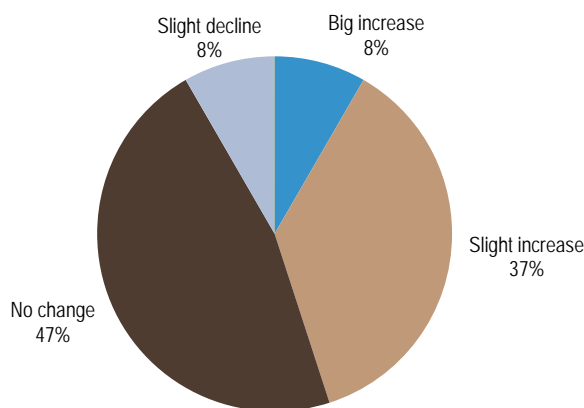
Source: Company reports, U.S. Census Bureau, and UBS estimates

**Question 3: Most branch managers are seeing flat to increased infrastructure spending in their area**

In the third question, we asked branch managers: “What change are you seeing in government/highway infrastructure project investment in your area vs a year ago?” Branch managers were asked to select from either “big increase,” “slight increase,” “no change,” “slight decline” or “big decline.” We received 60 responses.

47% of branch managers are seeing no change in government/highway infrastructure project investment in their area. That said, 45% are seeing an increase compared to only 8% seeing a decline.

**Figure 11: Branch managers’ views on changes from government/highway infrastructure project investment YoY**



Source: UBS Rental Equipment Branch Manager Survey #157

**Figure 12: Branch managers seeing flat to slight increase in government spending in their area**

Region	Big increase	Slight increase	No change	Slight decline	Big decline
Gulf	14%	14%	43%	29%	0%
Midwest	0%	56%	44%	0%	0%
Northeast	7%	40%	47%	7%	0%
Northwest	0%	14%	57%	29%	0%
Southeast	22%	33%	44%	0%	0%
Southwest	8%	46%	46%	0%	0%
Total	8%	37%	47%	8%	0%

Source: UBS Rental Equipment Branch Manager Survey #157

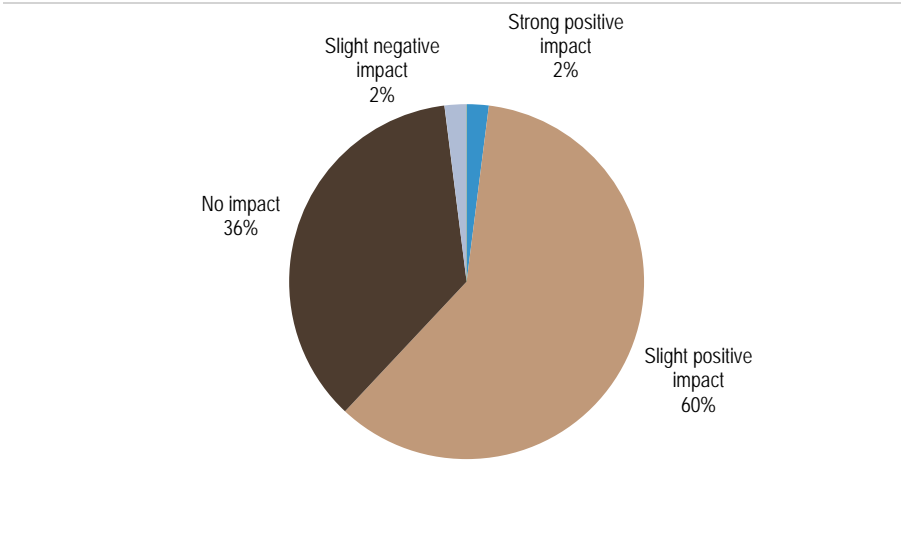
**Question 3a: Branch managers expect a slight positive impact from the Highway bill in 2016**

Within the detail in the third question, we asked branch managers: “What impact do you expect from the highway bill in 2016?” Branch managers were asked to

select from either "strong positive impact," "slight positive impact," "no impact," "slight negative impact," or "strong negative impact." We received 50 responses.

62% of branch managers expect a positive impact from the highway bill in 2016, while only 2% expect a negative impact. 36% of the managers expect no impact.

**Figure 13: Branch managers’ expectation of the impact from the Highway bill in 2016**



Source: UBS Rental Equipment Branch Manager Survey #157

**Figure 14: Branch managers expect in general a slightly positive impact from the 2016 Highway Bill**

Region	Strong positive impact	Slight positive impact	No impact	Slight negative impact	Strong negative impact
Gulf	0%	83%	0%	17%	0%
Midwest	0%	75%	25%	0%	0%
Northeast	8%	38%	54%	0%	0%
Northwest	0%	67%	33%	0%	0%
Southeast	0%	50%	50%	0%	0%
Southwest	0%	64%	36%	0%	0%
Total	2%	60%	36%	2%	0%

Source: UBS Rental Equipment Branch Manager Survey #157

**Question 3b: Branch managers are more optimistic on the potential impact from the Highway bill in 2017**

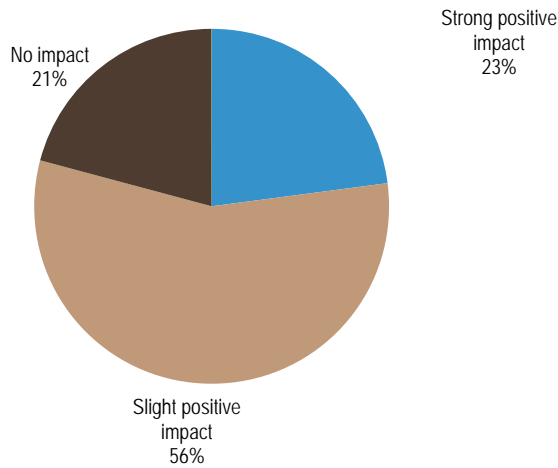
Within the detail in the third question, we asked branch managers: "What impact do you expect from the highway bill in 2017?" Branch managers were asked to select from either "strong positive impact," "slight positive impact," "no impact," "slight negative impact," or "strong negative impact." We received 48 responses.

79% of branch managers expect a positive impact from the highway bill in 2017, and 23% expect a strong positive impact. The remaining 21% of the managers



expect no impact, and no managers expect a negative impact. Managers are more positive on the highway bill's 2017 impact than its 2016 impact.

**Figure 15: Branch managers' expectation of the impact from the Highway bill in 2017**



Source: UBS Rental Equipment Branch Manager Survey #157

**Figure 16: Branch managers' expect to benefit from the 2017 Highway Bill**

Region	Strong positive impact	Slight positive impact	No impact	Slight negative impact	Strong negative impact
Gulf	40%	60%	0%	0%	0%
Midwest	13%	63%	25%	0%	0%
Northeast	8%	54%	38%	0%	0%
Northwest	20%	80%	0%	0%	0%
Southeast	50%	50%	0%	0%	0%
Southwest	27%	45%	27%	0%	0%
Total	23%	56%	21%	0%	0%

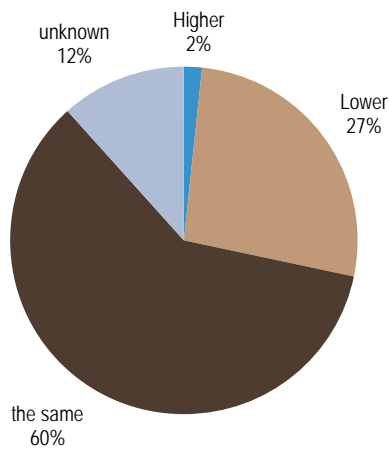
Source: UBS Rental Equipment Branch Manager Survey #157

**Question 4: Rental rates on public works projects could be lower than on private projects**

In the fourth question, we asked branch managers: *"How do rental rates on government construction jobs compare to jobs that are funded by private companies?"* Branch managers were asked to select from either *"higher," "the same,"* or *"unknown."* We received 60 responses.

While 60% of managers responded *"the same,"* 27% of the managers indicated that rental rates on government projects are *"slightly lower"* than private projects. We believe this may be an indicator of potential rental rate headwinds if equipment is moved off private jobs and onto new public construction projects later this year.

**Figure 17: Branch managers' view on rental rates on government projects vs. private**



Source: UBS Rental Equipment Branch Manager Survey #157

**Figure 18: Rental rates in government/ highway projects could be lower than those funded by private projects**

Region	Higher	The Same	Lower	Unknown
Gulf	0%	57%	0%	43%
Midwest	0%	89%	11%	0%
Northeast	0%	67%	27%	7%
Northwest	0%	71%	14%	14%
Southeast	0%	44%	56%	0%
Southwest	8%	38%	38%	15%
Total	2%	60%	27%	12%

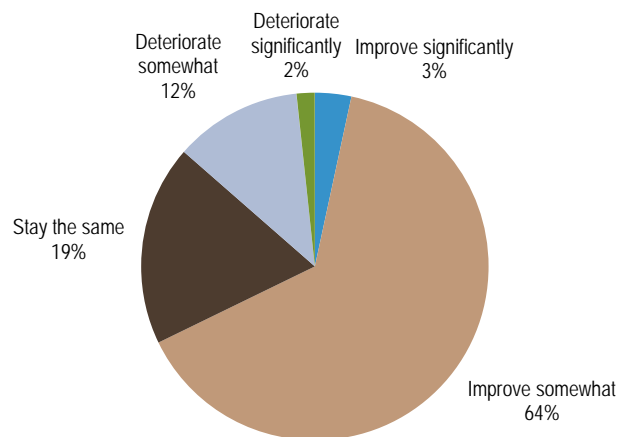
Source: UBS Rental Equipment Branch Manager Survey #157

**Question 5: Branch managers think non-res construction activity could improve somewhat in 2016**

In the fifth question, we asked: "In 2016, you expect non-residential construction activity in your region to?" Branch managers were asked to select from either "improve significantly," "improve somewhat," "stay the same," "deteriorate somewhat," or "deteriorate significantly." We received 59 responses.

67% of branch managers expect non-residential construction activity to improve in 2016, while 14% expect it to deteriorate.

**Figure 19: Non-residential construction activity relative to a year ago**



Source: UBS Rental Equipment Branch Manager Survey #156

## **URI: Maintain Neutral rating and \$56 price target**

Absent a further rally in oil prices, we see few organic catalysts. With a now higher stock price, we think URI could balance debt reductions and acquisitions with uses of cash. We expect non res growth to slow. While we expect that public sector construction activity will grow, highway projects may not require as much core rental product (i.e. aerial work platforms) as private sector projects. As a result, rental rates may remain sluggish. Our \$56 price target reflects a 4.5x multiple on our 2016E EBITDA of \$2.75b.

## **HEES: Maintain Neutral rating and \$15 price target**

We maintain our Neutral rating and \$15 target. The recent rebound in oil prices and the stock leaves HEES at a higher multiple but still no clear visibility to a reacceleration in Gulf Coast projects (Gulf Coast is ~50% of revenues). We are watching for evidence of a second wave of ethylene plants that resembles the first one, and final investment decisions on additional LNG plants (e.g. Magnolia, Lake Charles, expansions at Freeport, Cameron, etc). Our \$15 price target reflects a 4.3x multiple on our 2016E EBITDA of \$300m.

*We would like to thank Divya Sambhor, employee of Evalueserve, for her help and contributions in preparing this report. Evalueserve provides research support to UBS.*

## **Valuation Method and Risk Statement**

We believe the key risk for United Rentals is the potential for a weaker than expected macroeconomic environment to pressure rental rates and used equipment prices, which could reduce profitability. If profitability is reduced enough, we believe shares of URI could come under pressure due to both negative earnings revisions and liquidity concerns. We believe the primary risk for H&E would be an abrupt downturn in domestic non-residential activity, which could negatively impact earnings in H&E's rental and distribution operations. Additionally, a rapid decline in energy prices could also negatively impact activity in H&E's core Gulf Coast market. We value URI and HEES on an EV/EBITDA basis.

## Required Disclosures

This report has been prepared by UBS Securities LLC, an affiliate of UBS AG. UBS AG, its subsidiaries, branches and affiliates are referred to herein as UBS.

For information on the ways in which UBS manages conflicts and maintains independence of its research product; historical performance information; and certain additional disclosures concerning UBS research recommendations, please visit [www.ubs.com/disclosures](http://www.ubs.com/disclosures). The figures contained in performance charts refer to the past; past performance is not a reliable indicator of future results. Additional information will be made available upon request. UBS Securities Co. Limited is licensed to conduct securities investment consultancy businesses by the China Securities Regulatory Commission. UBS acts or may act as principal in the debt securities (or in related derivatives) that may be the subject of this report.

**Analyst Certification:** Each research analyst primarily responsible for the content of this research report, in whole or in part, certifies that with respect to each security or issuer that the analyst covered in this report: (1) all of the views expressed accurately reflect his or her personal views about those securities or issuers and were prepared in an independent manner, including with respect to UBS, and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by that research analyst in the research report.

### UBS Investment Research: Global Equity Rating Definitions

12-Month Rating	Definition	Coverage <sup>1</sup>	IB Services <sup>2</sup>
<b>Buy</b>	FSR is > 6% above the MRA.	49%	32%
<b>Neutral</b>	FSR is between -6% and 6% of the MRA.	38%	26%
<b>Sell</b>	FSR is > 6% below the MRA.	14%	19%
Short-Term Rating	Definition	Coverage <sup>3</sup>	IB Services <sup>4</sup>
<b>Buy</b>	Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.	<1%	<1%
<b>Sell</b>	Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event.	<1%	<1%

Source: UBS. Rating allocations are as of 31 March 2016.

1:Percentage of companies under coverage globally within the 12-month rating category.

2:Percentage of companies within the 12-month rating category for which investment banking (IB) services were provided within the past 12 months.

3:Percentage of companies under coverage globally within the Short-Term rating category.

4:Percentage of companies within the Short-Term rating category for which investment banking (IB) services were provided within the past 12 months.

**KEY DEFINITIONS:** **Forecast Stock Return (FSR)** is defined as expected percentage price appreciation plus gross dividend yield over the next 12 months. **Market Return Assumption (MRA)** is defined as the one-year local market interest rate plus 5% (a proxy for, and not a forecast of, the equity risk premium). **Under Review (UR)** Stocks may be flagged as UR by the analyst, indicating that the stock's price target and/or rating are subject to possible change in the near term, usually in response to an event that may affect the investment case or valuation. **Short-Term Ratings** reflect the expected near-term (up to three months) performance of the stock and do not reflect any change in the fundamental view or investment case. **Equity Price Targets** have an investment horizon of 12 months.

**EXCEPTIONS AND SPECIAL CASES:** **UK and European Investment Fund ratings and definitions are:** **Buy:** Positive on factors such as structure, management, performance record, discount; **Neutral:** Neutral on factors such as structure, management, performance record, discount; **Sell:** Negative on factors such as structure, management, performance record, discount. **Core Banding Exceptions (CBE):** Exceptions to the standard +/-6% bands may be granted by the Investment Review Committee (IRC). Factors considered by the IRC include the stock's volatility and the credit spread of the respective company's debt. As a result, stocks deemed to be very high or low risk may be subject to higher or lower bands as they relate to the rating. When such exceptions apply, they will be identified in the Company Disclosures table in the relevant research piece.

Research analysts contributing to this report who are employed by any non-US affiliate of UBS Securities LLC are not registered/qualified as research analysts with FINRA. Such analysts may not be associated persons of UBS Securities LLC and therefore are not subject to the FINRA restrictions on communications with a subject company, public appearances, and trading securities held by a research analyst account. The name of each affiliate and analyst employed by that affiliate contributing to this report, if any, follows.

UBS Securities LLC: Steven Fisher, CFA; Cleve Rueckert.

## Company Disclosures

Company Name	Reuters	12-month rating	Short-term rating	Price	Price date
<b>H&amp;E Equipment Services, Inc.</b> <sup>16</sup>	HEES.O	Neutral	N/A	US\$18.24	18 Apr 2016
<b>United Rentals, Inc.</b> <sup>13, 16</sup>	URI.N	Neutral	N/A	US\$61.54	18 Apr 2016

Source: UBS. All prices as of local market close.

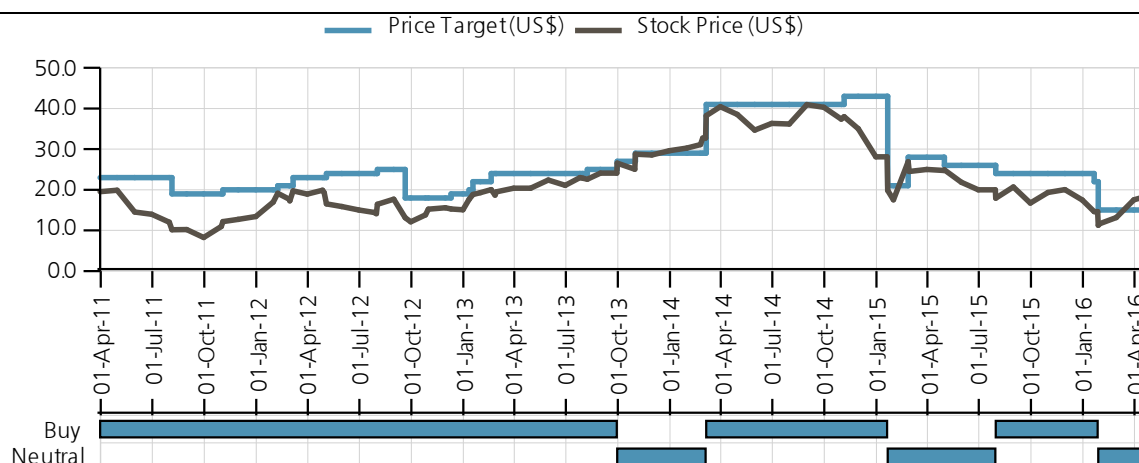
Ratings in this table are the most current published ratings prior to this report. They may be more recent than the stock pricing date

13. UBS AG, its affiliates or subsidiaries beneficially owned 1% or more of a class of this company's common equity securities as of last month's end (or the prior month's end if this report is dated less than 10 days after the most recent month's end).

16. UBS Securities LLC makes a market in the securities and/or ADRs of this company.

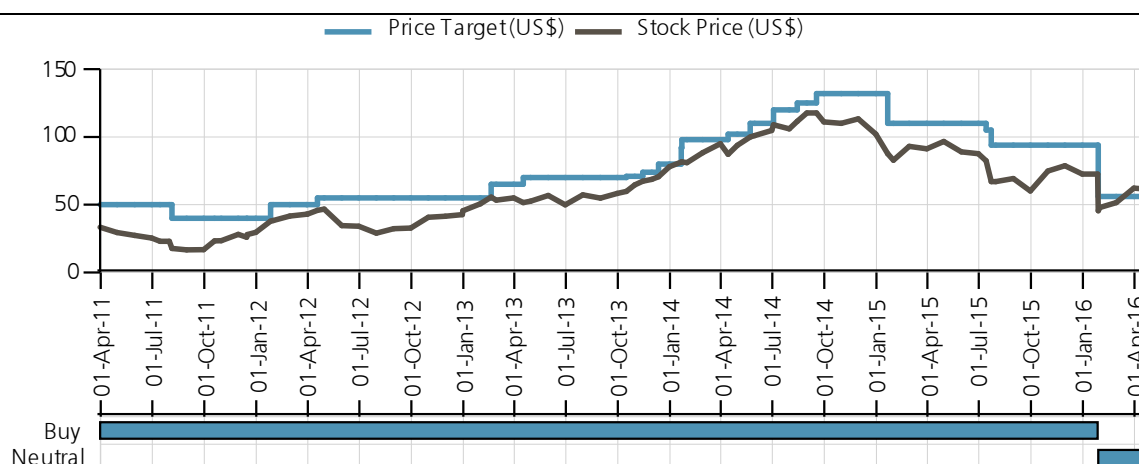
Unless otherwise indicated, please refer to the Valuation and Risk sections within the body of this report. For a complete set of disclosure statements associated with the companies discussed in this report, including information on valuation and risk, please contact UBS Securities LLC, 1285 Avenue of Americas, New York, NY 10019, USA, Attention: Investment Research.

### H&E Equipment Services, Inc. (US\$)



Source: UBS; as of 18 Apr 2016

### United Rentals, Inc (US\$)



Source: UBS; as of 18 Apr 2016

## Global Disclaimer

This document has been prepared by UBS Securities LLC, an affiliate of UBS AG. UBS AG, its subsidiaries, branches and affiliates are referred to herein as UBS.

Global Research is provided to our clients through UBS Neo, the UBS Client Portal and UBS.com (each a "System"). It may also be made available through third party vendors and distributed by UBS and/or third parties via e-mail or alternative electronic means. The level and types of services provided by Global Research to a client may vary depending upon various factors such as a client's individual preferences as to the frequency and manner of receiving communications, a client's risk profile and investment focus and perspective (e.g. market wide, sector specific, long-term, short-term, etc.), the size and scope of the overall client relationship with UBS and legal and regulatory constraints.

When you receive Global Research through a System, your access and/or use of such Global Research is subject to this Global Research Disclaimer and to the terms of use governing the applicable System.

When you receive Global Research via a third party vendor, e-mail or other electronic means, your use shall be subject to this Global Research Disclaimer and to UBS's Terms of Use/Disclaimer (<http://www.ubs.com/global/en/legalinfo2/disclaimer.html>). By accessing and/or using Global Research in this manner, you are indicating that you have read and agree to be bound by our Terms of Use/Disclaimer. In addition, you consent to UBS processing your personal data and using cookies in accordance with our Privacy Statement (<http://www.ubs.com/global/en/legalinfo2/privacy.html>) and cookie notice (<http://www.ubs.com/global/en/homepage/cookies/cookie-management.html>).

**If you receive Global Research, whether through a System or by any other means, you agree that you shall not copy, revise, amend, create a derivative work, transfer to any third party, or in any way commercially exploit any UBS research provided via Global Research or otherwise, and that you shall not extract data from any research or estimates provided to you via Global Research or otherwise, without the prior written consent of UBS.**

For access to all available Global Research on UBS Neo and the Client Portal, please contact your UBS sales representative.

This document is for distribution only as may be permitted by law. It is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or would subject UBS to any registration or licensing requirement within such jurisdiction. It is published solely for information purposes; it is not an advertisement nor is it a solicitation or an offer to buy or sell any financial instruments or to participate in any particular trading strategy. No representation or warranty, either expressed or implied, is provided in relation to the accuracy, completeness or reliability of the information contained in this document ('the Information'), except with respect to Information concerning UBS. The Information is not intended to be a complete statement or summary of the securities, markets or developments referred to in the document. UBS does not undertake to update or keep current the Information. Any opinions expressed in this document may change without notice and may differ or be contrary to opinions expressed by other business areas or groups of UBS. Any statements contained in this report attributed to a third party represent UBS's interpretation of the data, information and/or opinions provided by that third party either publicly or through a subscription service, and such use and interpretation have not been reviewed by the third party.

Nothing in this document constitutes a representation that any investment strategy or recommendation is suitable or appropriate to an investor's individual circumstances or otherwise constitutes a personal recommendation. Investments involve risks, and investors should exercise prudence and their own judgement in making their investment decisions. The financial instruments described in the document may not be eligible for sale in all jurisdictions or to certain categories of investors. Options, derivative products and futures are not suitable for all investors, and trading in these instruments is considered risky. Mortgage and asset-backed securities may involve a high degree of risk and may be highly volatile in response to fluctuations in interest rates or other market conditions. Foreign currency rates of exchange may adversely affect the value, price or income of any security or related instrument referred to in the document. For investment advice, trade execution or other enquiries, clients should contact their local sales representative.

The value of any investment or income may go down as well as up, and investors may not get back the full (or any) amount invested. Past performance is not necessarily a guide to future performance. Neither UBS nor any of its directors, employees or agents accepts any liability for any loss (including investment loss) or damage arising out of the use of all or any of the Information.

Any prices stated in this document are for information purposes only and do not represent valuations for individual securities or other financial instruments. There is no representation that any transaction can or could have been effected at those prices, and any prices do not necessarily reflect UBS's internal books and records or theoretical model-based valuations and may be based on certain assumptions. Different assumptions by UBS or any other source may yield substantially different results.

This document and the Information are produced by UBS as part of its research function and are provided to you solely for general background information. UBS has no regard to the specific investment objectives, financial situation or particular needs of any specific recipient. In no circumstances may this document or any of the Information be used for any of the following purposes:

- (i) valuation or accounting purposes;
- (ii) to determine the amounts due or payable, the price or the value of any financial instrument or financial contract; or
- (iii) to measure the performance of any financial instrument.

By receiving this document and the Information you will be deemed to represent and warrant to UBS that you will not use this document or any of the Information for any of the above purposes or otherwise rely upon this document or any of the Information.

Research will initiate, update and cease coverage solely at the discretion of UBS Investment Bank Research Management. The analysis contained in this document is based on numerous assumptions. Different assumptions could result in materially different results. The analyst(s) responsible for the preparation of this document may interact with trading desk personnel, sales personnel and other parties for the purpose of gathering, applying and interpreting market information. 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. The compensation of the analyst who prepared this document is determined exclusively by research management and senior management (not including investment banking). Analyst compensation is not based on investment banking revenues; however, compensation may relate to the revenues of UBS Investment Bank as a whole, of which investment banking, sales and trading are a part.

For financial instruments admitted to trading on an EU regulated market: UBS AG, its affiliates or subsidiaries (excluding UBS Securities LLC) acts as a market maker or liquidity provider (in accordance with the interpretation of these terms in the UK) in the financial instruments of the issuer save that where the activity of liquidity provider is carried out in accordance with the definition given to it by the laws and regulations of any other EU jurisdictions, such information is separately disclosed in this document. For financial instruments admitted to trading on a non-EU regulated market: UBS may act as a market maker save that where this activity is carried out in the US in accordance with the definition given to it by the relevant laws and regulations, such activity will be specifically disclosed in this document. UBS may have issued a warrant the value of which is based on one or more of the financial instruments referred to in the document. UBS and its affiliates and employees may have long or short positions, trade as principal and buy and sell in instruments or derivatives identified herein; such transactions or positions may be inconsistent with the opinions expressed in this document.

**United Kingdom and the rest of Europe:** Except as otherwise specified herein, this material is distributed by UBS Limited to persons who are eligible counterparties or professional 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. **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). **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). **Turkey:** Distributed by UBS Limited. No information in this document is provided for the purpose of offering, marketing and sale by any means of any capital market instruments and services in the Republic of Turkey. Therefore, this document may not be considered as an offer made or to be made to residents of the Republic of Turkey. UBS AG is not licensed by the Turkish Capital Market Board under the provisions of the Capital Market Law (Law No. 6362). Accordingly, neither this document nor any other offering material related to the instruments/services may be utilized in connection with providing any capital market services to persons within the Republic of Turkey without the prior approval of the Capital Market Board. However, according to article 15 (d) (ii) of the Decree No. 32, there is no restriction on the purchase or sale of the securities abroad by residents of the Republic of Turkey. **Poland:** Distributed by UBS Limited (spółka z ograniczoną odpowiedzialnością) Oddział w Polsce regulated by the Polish Financial Supervision Authority. Where an analyst of UBS Limited (spółka z ograniczoną odpowiedzialnością) Oddział w Polsce has contributed to this

document, the document is also deemed to have been prepared by UBS Limited (spółka z ograniczoną odpowiedzialnością) Oddział w Polsce. **Russia:** Prepared and distributed by UBS Bank (OOO). **Switzerland:** Distributed by UBS AG to persons who are institutional investors only. UBS AG is regulated by the Swiss Financial Market Supervisory Authority (FINMA). **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). Where an analyst of UBS Italia Sim S.p.A. has contributed to this document, the document is also deemed to have been prepared by UBS Italia Sim S.p.A. **South Africa:** Distributed by UBS South Africa (Pty) Limited (Registration No. 1995/011140/07), an authorised user of the JSE and an authorised Financial Services Provider (FSP 7328). **Israel:** This material is distributed by UBS Limited. UBS Limited is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. UBS Securities Israel Ltd is a licensed Investment Marketer that is supervised by the Israel Securities Authority (ISA). UBS Limited and its affiliates incorporated outside Israel are not licensed under the Israeli Advisory Law. UBS Limited is not covered by insurance as required from a licensee under the Israeli Advisory Law. UBS may engage among others in issuance of Financial Assets or in distribution of Financial Assets of other issuers for fees or other benefits. UBS Limited and its affiliates may prefer various Financial Assets to which they have or may have Affiliation (as such term is defined under the Israeli Advisory Law). Nothing in this Material should be considered as investment advice under the Israeli Advisory Law. This Material is being issued only to and/or is directed only at persons who are Eligible Clients within the meaning of the Israeli Advisory Law, and this material must not be relied on or acted upon by any other persons. **Saudi Arabia:** This document has 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. **Dubai:** The information distributed by UBS AG Dubai Branch is intended for Professional Clients only and is not for further distribution within the United Arab Emirates. **United States:** Distributed to US persons by either UBS Securities LLC or by UBS Financial Services Inc., subsidiaries of UBS AG; or by a group, subsidiary or affiliate of UBS AG that is not registered as a US broker-dealer (a 'non-US affiliate') to major US institutional investors only. UBS Securities LLC or UBS Financial Services Inc. accepts responsibility for the content of a document prepared by another non-US affiliate when distributed to US persons by UBS Securities LLC or UBS Financial Services Inc. All transactions by a US person in the securities mentioned in this document must be effected through UBS Securities LLC or UBS Financial Services Inc., and not through a non-US affiliate. UBS Securities LLC is not acting as a municipal advisor to any municipal entity or obligated person within the meaning of Section 15B of the Securities Exchange Act (the "Municipal Advisor Rule"), and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of the Municipal Advisor Rule. **Canada:** Distributed by UBS Securities Canada Inc., a registered investment dealer in Canada and a Member-Canadian Investor Protection Fund, or by another affiliate of UBS AG that is registered to conduct business in Canada or is otherwise exempt from registration. **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. **Hong Kong:** Distributed by UBS Securities Asia Limited and/or UBS AG, Hong Kong Branch. **Singapore:** Distributed by UBS Securities Pte. Ltd. [MCI (P) 018/09/2015 and Co. Reg. No.: 198500648C] or UBS AG, Singapore Branch. Please contact UBS Securities Pte. Ltd., an exempt financial adviser under the Singapore Financial Advisers Act (Cap. 110); or 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 document. The recipients of this document represent and warrant that they are accredited and institutional investors as defined in the Securities and Futures Act (Cap. 289). **Japan:** Distributed by UBS Securities Japan Co., Ltd. to professional investors (except as otherwise permitted). Where this document has been prepared by UBS Securities Japan Co., Ltd., UBS Securities Japan Co., Ltd. is the author, publisher and distributor of the document. Distributed by UBS AG, Tokyo Branch to Professional Investors (except as otherwise permitted) in relation to foreign exchange and other banking businesses when relevant. **Australia:** Clients of UBS AG: Distributed by UBS AG (Holder of Australian Financial Services License No. 231087). Clients of UBS Securities Australia Ltd: Distributed by UBS Securities Australia Ltd (Holder of Australian Financial Services License No. 231098). Clients of UBS Wealth Management Australia Ltd: Distributed by UBS Wealth Management Australia Ltd (Holder of Australian Financial Services License No. 231127). This Document contains general information and/or general advice only and does not constitute personal financial product advice. As such, the Information in this document has been prepared without taking into account any investor's objectives, financial situation or needs, and investors should, before acting on the Information, consider the appropriateness of the Information, having regard to their objectives, financial situation and needs. If the Information contained in this document relates 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. The UBS Securities Australia Limited Financial Services Guide is available at: [www.ubs.com/ecs-research-fsg](http://www.ubs.com/ecs-research-fsg). **New Zealand:** Distributed by UBS New Zealand Ltd. The information and recommendations in this publication 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 advisor. **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. **Malaysia:** This material is authorized to be distributed in Malaysia by UBS Securities Malaysia Sdn. Bhd (Capital Markets Services License No.: CMSL/A0063/2007). This material is intended for professional/institutional clients only and not for distribution to any retail clients. **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. It provides brokerage services bearing SEBI Registration Numbers: NSE (Capital Market Segment): INB230951431, NSE (F&O Segment) INF230951431, NSE (Currency Derivatives Segment) INE230951431, BSE (Capital Market Segment) INB010951437; merchant banking services bearing SEBI Registration Number: INM000010809 and Research Analyst services bearing SEBI Registration Number: INH000001204. UBS AG, its affiliates or subsidiaries may have debt holdings or positions in the subject Indian company/companies. Within the past 12 months, UBS AG, its affiliates or subsidiaries may have received compensation for non-investment banking securities-related services and/or non-securities services from the subject Indian company/companies. The subject company/companies may have been a client/clients of UBS AG, its affiliates or subsidiaries during the 12 months preceding the date of distribution of the research report with respect to investment banking and/or non-investment banking securities-related services and/or non-securities services. With regard to information on associates, please refer to the Annual Report at: [http://www.ubs.com/global/en/about\\_ubs/investor\\_relations/annualreporting.html](http://www.ubs.com/global/en/about_ubs/investor_relations/annualreporting.html)

The disclosures contained in research documents produced by UBS Limited shall be governed by and construed in accordance with English law.

UBS specifically prohibits the redistribution of this document in whole or in part without the written permission of UBS and UBS accepts no liability whatsoever for the actions of third parties in this respect. Images may depict objects or elements that are protected by third party copyright, trademarks and other intellectual property rights. © UBS 2016. The key symbol and UBS are among the registered and unregistered trademarks of UBS. All rights reserved.

