

# Borussia Dortmund GmbH & Co KGaA

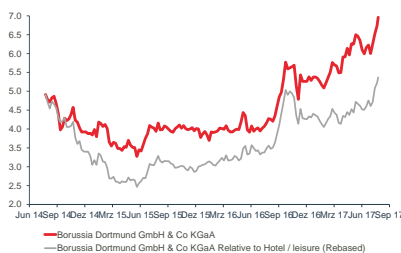
Buy → | Target price : 7.50 EUR vs 6.50 EUR ↗

Price (22/08/2017) : 6.96 EUR | Upside : 8 %

	Est.chg	2017e	2018e
EPS		10.0%	23.8%

**A good start into the new season; transfer window soon to close – all eyes on Dembélé**

Publication date 23.08.2017 07:39  
 Writing date 22.08.2017 17:03



Source : Oddo BHF, Fininfo

Capital			
<b>BVB GY   BVB.DE</b>			
Market Cap (EURm)			640
Enterprise value (EURm)			586
Extrema 12 months	4.16		6.96
Free Float (%)			60.5
Performance (%)			
	1m	3m	12m
Absolute	11.8	11.7	68.1
Perf. rel. Country Index	13.1	16.2	52.3
Perf. rel. Hotel / leisure	12.8	18.1	55.3
P&L			
	06/16	06/17e	06/18e
Sales (EURm)	376	396	449
EBITDA (EURm)	86.7	77.9	116
Current EBIT (EURm)	36.4	16.0	47.1
Attr. net profit (EURm)	30.5	10.3	34.5
Adjusted EPS (EUR)	0.33	0.11	0.38
Dividend (EUR)	0.06	0.08	0.10
P/E (x)	12.0	46.5	18.5
P/B (x)	1.2	1.5	1.8
Dividend Yield (%)	1.5	1.5	1.4
FCF yield (%)	ns	1.8	5.7
EV/Sales (x)	0.84	1.15	1.31
EV/EBITDA (x)	3.6	5.8	5.0
EV/Current EBIT (x)	8.7	28.4	12.4
Gearing (%)	-16	-8	-15
Net Debt/EBITDA(x)	ns	ns	ns

Next Events	
24.08.2017	Earnings Release
02.03.2018	Earnings Release

## Preview of 2016-17e numbers: no surprises likely

We have slightly adjusted our model, as we include all the most recent transfers and newsflow into our estimates. On the top line, we have now included the bonus from winning the DFB Pokal (German Cup), which we estimate at € 3m; this lifts our group revenue estimate for 2016-17e to € 395.6m (+5.1% yoy). Excluding transfer income (€ 58.8m), we expect 2016-17 revenue to come in at € 347.3m (+22% yoy). As a result, our EBITDA forecast increases to € 77.9m (from € 76.6m). We estimate EBITDA pre player income at € 28.8m.

### Preview 2016-17e

	2016/17e	2015-16	Yoy	Q4e
Top line	395.6	376.3	+5.1%	110.1
EBITDA	77.9	86.7	-10.2%	27.3

Source: Oddo BHF, company data

## Updating our estimates for 2017-18e

For the current fiscal year (2017-18e) we have updated our model for the latest transfers and newsflow. We now include combined transfer fees for Ginter, Bender and Stenzel of € 32.5m (excl. earn-out components to be paid in the coming years). In addition, we have updated the contract details of the Opel sponsorship, incorporating the contract extension to 2022 and the fact that Opel is now BVB's first sleeve sponsor starting this season. While we assume the contract will bring in € 8m per year (base scenario), we also believe the sleeve sponsorship part is worth € 3-5m per year (we now include € 4m in our model, which is € 2m higher than we had previously assumed). In total, we have increased our top line forecast by roughly € 45m, translating into our new full-year group revenue estimate of € 448.6m for 2017-18e (first year of new Bundesliga TV deal). Additionally, we have lowered our opex assumptions, which raises our EBITDA estimate to € 116.5m (previously: € 107m). Of this, € 90.5m is pre player transfer book profit. Thus, our net income estimate increases to € 34.5m vs € 27.9m previously.

## A good start into the new season; Dembélé transfer still pending

BVB has had a very good start into the current season: i/ It won its first-round match in the German Cup and has drawn a favourable opponent for the 2nd round (3rd Bundesliga team 1. FC Magdeburg.). ii/ It won its season opener vs. Wolfsburg (3-0 away), which puts it at the top of the league table after 1 game. The Champions League group drawing will take place on Thursday, 24 August. In terms of TV-advertising proceeds, BVB will receive a bigger share of the German CL package if Hoffenheim fails to qualify for the CL vs Liverpool on 23 August. It lost the 1<sup>st</sup> leg to Liverpool at home 1-2 on 15 August.

After Neymar left Barcelona for PSG, it was assumed the Dembélé deal would be done soon thereafter. But that deal currently looks like it is on the brink of falling through. Rumours of the transfer fee indicate a very wide range of € 80-150m, but with the transfer window closing at the end of August, we believe that BVB's steadfast opposition to selling Dembélé after his "strike" will improve its bargaining leverage both in this deal and going forward. Although transfer income on a Dembélé deal would send BVB's P&L through the roof, selling him now would not be the best solution for BVB in our view, as there is little time left to find an adequate replacement. Nevertheless, the buzz surrounding this deal has lifted BVB's share price to new highs, even beyond our old TP of € 6.50. After incorporating our new estimates into our model and allowing for a short-term premium for the team's improved roster value, our fair value per share rises to € 11.01 (prev.: € 10.27). As a result, we have also lowered our multiple discount from 50% to 40% vs. Manchester United, leading to a new TP of € 7.50 (+15% vs. old TP).

<b>Marcus Silbe, CEFA (Analyst)</b>	<b>Michele Sassano</b>
+49 (69) 71 83 640	+49 (69) 71 83 676
marcus.silbe@bhf-bank.com	michele.sassano@bhf-bank.com

### Conflict of interests:

ODDO BHF CORPORATES & MARKETS, a division of ODDO BHF SCA, limited sharepartnership - Bank authorised by ACPR. ODDO BHF and/or one of its subsidiaries could be in a conflict of interest situation with one or several of the groups mentioned in this publication. Please refer to the conflict of interests section at the end of this document.  
 This is a non-contractual document, it is strictly for the private use of the recipient, and the information it contains is based on sources we believe to be reliable, but whose accuracy and completeness cannot be guaranteed. The opinions given in the document reflect our appraisal at the time of publication and may therefore be revised at a later date.



**BVB.DE | BVB GY  
Leisure | Germany**

**Buy**  
Upside 7.76%

Price 6.96EUR  
TP 7.50EUR

	06/11	06/12	06/13	06/14	06/15	06/16	06/17e	06/18e
<b>PER SHARE DATA (EUR)</b>								
Adjusted EPS	0.09	0.45	0.83	0.19	0.06	0.33	0.11	0.38
<b>Reported EPS</b>	<b>0.09</b>	<b>0.45</b>	<b>0.83</b>	<b>0.19</b>	<b>0.06</b>	<b>0.33</b>	<b>0.11</b>	<b>0.38</b>
Growth in EPS(%)	-	ns	85.4%	-77.1%	-68.3%	ns	-66.2%	ns
Net dividend per share	0.00	0.06	0.10	0.10	0.05	0.06	0.08	0.10
FCF to equity per share	0.21	0.31	0.23	0.29	-0.60	0.00	0.09	0.40
Book value per share	1.10	1.52	2.28	2.36	3.11	3.36	3.48	3.86
Number of shares market cap	61.43	61.43	61.43	61.43	92.00	92.00	92.00	92.00
Number of diluted shares	61.43	61.43	61.43	61.43	92.00	92.00	92.00	92.00
<b>VALUATION</b>	<b>06/11</b>	<b>06/12</b>	<b>06/13</b>	<b>06/14</b>	<b>06/15</b>	<b>06/16</b>	<b>06/17e</b>	<b>06/18e</b>
12m highest price	3.05	2.80	3.95	5.10	4.21	5.86	6.96	6.96
12m lowest price	1.76	1.90	2.64	3.56	3.21	3.61	5.09	6.96
(*) Reference price	2.16	2.27	2.80	3.66	4.10	3.97	5.22	6.96
Capitalization	133	140	172	225	378	365	480	640
Restated Net debt	59.6	43.3	34.2	24.8	-51.2	-49.1	-24.8	-54.8
Minorities (fair value)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial fixed assets (fair value)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Provisions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Enterprise Value</b>	<b>192</b>	<b>183</b>	<b>206</b>	<b>250</b>	<b>326</b>	<b>316</b>	<b>455</b>	<b>586</b>
P/E (x)	25.0	5.1	3.4	19.3	68.3	12.0	46.5	18.5
P/CF (x)								
Net Yield (%)	0.0%	2.6%	3.6%	2.7%	1.2%	1.5%	1.5%	1.4%
FCF yield (%)	9.5%	13.7%	8.3%	7.8%	ns	ns	1.8%	5.7%
P/B incl. GW (x)	1.97	1.50	1.23	1.55	1.32	1.18	1.50	1.81
P/B excl. GW (x)	1.97	1.50	1.23	1.55	1.32	1.18	1.50	1.81
EV/Sales (x)	1.27	0.85	0.68	0.96	1.18	0.84	1.15	1.31
EV/EBITDA (x)	5.9	3.0	2.4	5.1	5.9	3.6	5.8	5.0
<b>EV/EBIT (x)</b>	<b>12.9</b>	<b>4.4</b>	<b>3.2</b>	<b>13.5</b>	<b>24.8</b>	<b>8.7</b>	<b>28.4</b>	<b>12.4</b>
(*) historical average price								
<b>PROFIT AND LOSS (EURm)</b>	<b>06/11</b>	<b>06/12</b>	<b>06/13</b>	<b>06/14</b>	<b>06/15</b>	<b>06/16</b>	<b>06/17e</b>	<b>06/18e</b>
Sales	151	215	305	261	276	376	396	449
EBITDA	32.4	60	88	49.1	56	87	78	116
Depreciations	-17.5	-18.6	-22.4	-30.7	-42.4	-50.2	-61.9	-69.3
<b>Current EBIT</b>	<b>14.9</b>	<b>41.4</b>	<b>65</b>	<b>18.5</b>	<b>13.2</b>	<b>36.4</b>	<b>16.0</b>	<b>47.1</b>
Published EBIT	14.9	41.4	65	18.5	13.2	36.4	16.0	47.1
Net financial income	-5.4	-4.8	-5.1	-3.9	-7.2	-1.0	-1.2	-0.3
Corporate Tax	-4.1	-9.1	-8.8	-2.6	-0.5	-4.9	-4.5	-12.4
Net income of equity-accounted companies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Profit/loss of discontinued activities (after tax)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minority interests	-0.1	-0.1	-0.4	-0.3	0.0	0.0	0.0	0.0
Attributable net profit	5.3	27.4	51	11.7	5.5	30.5	10.3	34.5
<b>Adjusted attributable net profit</b>	<b>5.3</b>	<b>27.4</b>	<b>51</b>	<b>11.7</b>	<b>5.5</b>	<b>30.5</b>	<b>10.3</b>	<b>34.5</b>
<b>BALANCE SHEET (EURm)</b>	<b>06/11</b>	<b>06/12</b>	<b>06/13</b>	<b>06/14</b>	<b>06/15</b>	<b>06/16</b>	<b>06/17e</b>	<b>06/18e</b>
Goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other intangible assets	18.4	25.7	28.4	61.6	96.3	65.3	149	149
Tangible fixed assets	171	183	178	185	190	188	185	180
WCR	2.1	2.2	43.7	-13.5	-1.4	36.2	42.1	46.5
Financial assets	7.4	2.1	5.4	3.4	3.7	49.1	16.1	15.9
Ordinary shareholders equity	67.3	93.1	140	145	286	310	320	355
Minority interests	0.3	0.3	0.6	0.3	0.3	0.0	0.0	0.0
Shareholders equity	67.6	93.5	141	145	286	310	320	355
Non-current provisions	71.5	75.9	81.1	65.9	53.3	77.1	95.2	91.5
<b>Net debt</b>	<b>59.6</b>	<b>43.3</b>	<b>34.2</b>	<b>24.8</b>	<b>-51.2</b>	<b>-49.1</b>	<b>-24.8</b>	<b>-54.8</b>
<b>CASH FLOW STATEMENT (EURm)</b>	<b>06/11</b>	<b>06/12</b>	<b>06/13</b>	<b>06/14</b>	<b>06/15</b>	<b>06/16</b>	<b>06/17e</b>	<b>06/18e</b>
<b>EBITDA</b>	<b>32.4</b>	<b>60.0</b>	<b>87.5</b>	<b>49.1</b>	<b>55.6</b>	<b>86.7</b>	<b>77.9</b>	<b>116.5</b>
Change in WCR	5.8	1.1	3.3	-6.7	-20.9	-25.2	47.4	-7.4
Interests & taxes	-6.4	-6.1	-13.9	-7.5	-7.4	-11.3	-10.7	-12.6
Others	-11.1	-27.0	-48.4	-8.5	-10.4	-0.2	-37.5	0.0
Operating Cash flow	20.7	28.0	28.6	26.4	16.9	49.9	77.1	96.5
CAPEX	-8.1	-8.9	-14.3	-8.9	-72.1	-50.1	-68.5	-60.1
<b>Free cash-flow</b>	<b>12.6</b>	<b>19.2</b>	<b>14.3</b>	<b>17.6</b>	<b>-55.1</b>	<b>-0.2</b>	<b>8.6</b>	<b>36.4</b>
Acquisitions / disposals	0.1	0.2	0.1	0.0	-0.4	0.0	0.0	-0.4
Dividends	-0.4	-1.2	-5.1	-8.0	-8.3	-4.6	-3.0	-6.4
Net capital increase	0.0	0.0	0.0	0.0	140.7	0.0	0.0	0.0
Others	-6.5	-11.7	-2.0	-4.3	-41.0	0.0	0.0	-41.0
Change in net debt	10.3	18.1	9.3	9.6	76.9	-4.8	5.6	29.6
<b>GROWTH MARGINS PRODUCTIVITY</b>	<b>06/11</b>	<b>06/12</b>	<b>06/13</b>	<b>06/14</b>	<b>06/15</b>	<b>06/16</b>	<b>06/17e</b>	<b>06/18e</b>
Sales growth	-	42.1%	41.7%	-14.5%	5.9%	36.3%	5.1%	13.4%
<b>Lfi sales growth</b>	<b>-</b>	<b>-</b>	<b>41.7%</b>	<b>-14.5%</b>	<b>5.9%</b>	<b>36.3%</b>	<b>5.1%</b>	<b>-</b>
Current EBIT growth	-	ns	57.3%	-71.7%	-28.7%	ns	-56.1%	ns
Growth in EPS(%)	-	ns	85.4%	-77.1%	-68.3%	ns	-66.2%	ns
Net margin	3.5%	12.7%	16.7%	4.5%	2.0%	8.1%	2.6%	7.7%
<b>EBITDA margin</b>	<b>21.4%</b>	<b>27.9%</b>	<b>28.7%</b>	<b>18.8%</b>	<b>20.1%</b>	<b>23.0%</b>	<b>19.7%</b>	<b>26.0%</b>
<b>Current EBIT margin</b>	<b>9.8%</b>	<b>19.2%</b>	<b>21.3%</b>	<b>7.1%</b>	<b>4.8%</b>	<b>9.7%</b>	<b>4.0%</b>	<b>10.5%</b>
CAPEX / Sales	-7.5%	-13.1%	-9.0%	-23.9%	-28.5%	-13.3%	-25.4%	-13.4%
WCR / Sales	1.4%	1.0%	14.3%	-5.2%	-0.5%	9.6%	10.6%	10.4%
Tax Rate	43.1%	24.8%	14.7%	18.0%	7.8%	13.8%	30.3%	26.4%
Normative tax rate	-70.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
Asset Turnover	-	1.1	1.3	1.1	1.1	1.3	1.2	1.2
<b>ROCE post-tax (normative tax rate)</b>	<b>-</b>	<b>14.5%</b>	<b>19.8%</b>	<b>5.3%</b>	<b>3.6%</b>	<b>8.9%</b>	<b>3.4%</b>	<b>8.8%</b>
ROCE post-tax hors GW (normative tax rate)	-	14.5%	19.8%	5.3%	3.6%	8.9%	3.4%	8.8%
ROE	-	34.2%	43.6%	8.2%	2.6%	10.2%	3.3%	10.2%
<b>DEBT RATIOS</b>	<b>06/11</b>	<b>06/12</b>	<b>06/13</b>	<b>06/14</b>	<b>06/15</b>	<b>06/16</b>	<b>06/17e</b>	<b>06/18e</b>
Gearing	88%	46%	24%	17%	-18%	-16%	-8%	-15%
Net Debt / Market Cap	0.45	0.31	0.20	0.11	-0.14	-0.13	-0.05	-0.09
<b>Net debt / EBITDA</b>	<b>1.84</b>	<b>0.72</b>	<b>0.39</b>	<b>0.50</b>	<b>ns</b>	<b>ns</b>	<b>ns</b>	<b>ns</b>
EBITDA / net financial charges	6.0	12.3	17.3	12.6	7.8	82.9	64.9	465.9

Source: Oddo BHF, Fininfo



• **Valuation method**

Our target prices are established on a 12-month timeframe and we use three valuation methods to determine them. First, the discounting of available cash flows using the discounting parameters set by the Group and indicated on Oddo BHF' website. Second, the sum-of-the-parts method based on the most pertinent financial aggregate depending on the sector of activity. Third, we also use the peer comparison method which facilitates an evaluation of the company relative to similar businesses, either because they operate in identical sectors (and are therefore in competition with one another) or because they benefit from comparable financial dynamics. A mixture of these valuation methods may be used in specific instances to more accurately reflect the specific characteristics of each company covered, thereby fine-tuning its evaluation.

• **Sensitivity of the result of the analysis/ risk classification:**

The opinions expressed in the financial analysis are opinions as per a particular date, i.e. the date indicated in the financial analysis. The recommendation (cf. explanation of the recommendation systematic) can change owing to unforeseeable events which may, for instance, have repercussions on both the company and on the whole industry.

• **Our stock market recommendations**

Our stock market recommendations reflect the RELATIVE performance expected for each stock on a 12-month timeframe.

Buy: performance expected to exceed that of the benchmark index, sectoral (large caps) or other (small and mid caps).

Neutral: performance expected to be comparable to that of the benchmark index, sectoral (large caps) or other (small and mid caps).

Reduce: performance expected to fall short of that of the benchmark index, sectoral (large caps) or other (small and mid caps).

• **The prices of the financial instruments used and mentioned in this document are the closing prices.**

• **All publications by Oddo BHF concerning the companies covered and mentioned in this document are available on the research site: [www.oddosecurities.com](http://www.oddosecurities.com)**

**Recommendation and target price changes history over the last 12 months for the company analysed in this report**

Date	Reco	Price Target (EUR)	Price (EUR)	Analyst
22.08.17	Buy	7.50	6.96	Marcus Silbe, CEFA
16.03.17	Buy	6.50	5.35	Marcus Silbe, CEFA
22.02.17	Buy	6.00	5.22	Marcus Silbe, CEFA
22.11.16	Neutral	6.00	5.80	Marcus Silbe, CEFA

Recommendation split		Buy	Neutral	Reduce
Our whole coverage	(427)	46%	43%	11%
Liquidity providers coverage	(152)	44%	49%	7%
Research service coverage	(66)	53%	42%	5%
Investment banking services	(51)	59%	35%	6%

**Risk of conflict of interest :**

<b>Investment banking and/or Distribution</b>	
Has Oddo BHF, managed or co-managed in the past 12 months a public offering of securities for the subject company/ies?	No
Has Oddo BHF, received compensation for investment banking services from the subject company/ies in the past 12 months or expects to receive or intends to seek compensation for investment banking services from the subject company/ies in the last 12 months?	No
<b>Research contract between Oddo group &amp; the issuer</b>	
Oddo BHF and the issuer have agreed that Oddo BHF will produce and disseminate investment recommendations on the said issuer as a service to the issuer	No
<b>Liquidity provider agreement and market-making</b>	
At the date of the distribution of this report, does Oddo BHF, act as a market maker or has Oddo BHF, signed a liquidity provider agreement with the subject company/ies?	Yes
<b>Significant equity stake</b>	
Does Oddo BHF, own 5% or more of any class of common equity securities of the subject company/ies?	No
Does the subject company beneficially own 5% or more of any class of common equity of Oddo BHF or its affiliates?	No
<b>Disclosure to Company</b>	
Has a copy of this report ; with the target price and/or rating removed, been presented to the subject company/ies prior to its distribution, for the sole purpose of verifying the accuracy of factual statements ?	No
Have the conclusions of this report been amended following disclosure to the company/ies and prior its distribution?	No
<b>Additional material conflicts</b>	
Is Oddo BHF, aware of any additional material conflict of interest?	No
<b>Personal conflicts of interest</b>	
Have those responsible for the drafting of the present document acquired securities from the issuer concerned by the present financial analysis?	No
Have those responsible for the drafting of the present document received remuneration directly linked to investment firm service transactions or any other kind of transaction they carry out or any trading commissions they, or any legal person who is part of the same group, receive?	No

**Statement of conflict of interests of all companies mentioned in this document may be consulted on Oddo BHF: [www.oddosecurities.com](http://www.oddosecurities.com)**



**Disclaimer:**

**Disclaimer for Distribution by ODDO BHF SCA to Non-United States Investors:**

This research publication is produced by ODDO BHF Corporate & Markets, a division of ODDO BHF SCA ("ODDO"), which is licensed by the Autorité de Contrôle Prudenciel et de Résolution (ACPR) and regulated by the Autorité des Marchés Financiers ("AMF").

The research, when distributed outside of the U.S., is intended exclusively for non-U.S. customers of ODDO and cannot be divulged to a third-party without prior written consent of ODDO. This document is not and should not be construed as an offer to sell or the solicitation of an offer to purchase or subscribe for any investment. This research has been prepared in accordance with regulatory provisions designed to promote the independence of investment research. "Chinese walls" (information barriers) have been implemented to avert the unauthorized dissemination of confidential information and to prevent and manage situations of conflict of interest. This research has been prepared in accordance with French regulatory provisions designed to promote the independence of investment research. The recommendation presented in this document is reviewed and updated at least quarterly following each Quarterly Report published by the issuer that is the subject of this Research Report.

At the time of publication of this document, ODDO and/or one of its subsidiaries may have a conflict of interest with the issuer(s) mentioned. While all reasonable effort has been made to ensure that the information contained is not untrue or misleading at the time of publication, no representation is made as to its accuracy or completeness and it should not be relied upon as such. Past performances offer no guarantee as to future performances. All opinions expressed in the present document reflect the current context which is subject to change without notice. The views expressed in this Research Report accurately reflect the analyst's personal views about the subject securities and/or issuers and no part of his compensation was, is, or will be directly or indirectly related to the specific views contained in the Research Report. This Research Report 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.

This Research Report is for institutional investors only. It may not contain information necessary for others to make investment decisions. Consult your financial adviser or an investment professional if you are not an institutional investor.

**Disclaimer for Distribution by Oddo New York to United States Investors:**

This Research Report is produced by ODDO BHF Corporate & Markets, a division of ODDO. This research is distributed to U.S. investors exclusively by ODDO BHF New York Corporation ("ONY"), MEMBER: FINRA/SIPC, and is intended exclusively for U.S. customers of ONY and cannot be divulged to a third-party without prior written consent of ONY. This document is not and should not be construed as an offer to sell or the solicitation of an offer to purchase or subscribe for any investment. This research has been prepared in accordance with regulatory provisions designed to promote the independence of investment research. "Chinese walls" (information barriers) have been implemented to avert the unauthorized dissemination of confidential information and to prevent and manage situations of conflict of interest. This research has been prepared in accordance with French regulatory provisions designed to promote the independence of investment research. The recommendation presented in this document is reviewed and updated at least quarterly following each Quarterly Report published by the issuer that is the subject of this Research Report.

At the time of publication of this document, ODDO, and/or one of its subsidiaries may have a conflict of interest with the issuer(s) mentioned. While all reasonable effort has been made to ensure that the information contained is not untrue or misleading at the time of publication, no representation is made as to its accuracy or completeness and it should not be relied upon as such. Past performances offer no guarantee as to future performances. All opinions expressed in the present document reflect the current context which is subject to change without notice. The views expressed in this Research Report accurately reflect the analyst's personal views about the subject securities and/or issuers and no part of his compensation was, is, or will be directly or indirectly related to the specific views contained in the Research Report. This Research Report 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.

This Research Report is for institutional investors only. It may not contain information necessary for others to make investment decisions. Consult your financial adviser or an investment professional if you are not an institutional investor.

**Rule 15a-6 Disclosure:**

Under Rule 15a-6(a)(3), any transactions conducted by ODDO, and/or one of its subsidiaries with U.S. persons in the securities described in this foreign research must be effected through ONY. As a member of FINRA, ONY has reviewed this material for distribution to U.S. persons as required by FINRA Rules 2241(h) applicable to dissemination of research produced by its affiliate ODDO.

**FINRA Disclosures:**

- Neither ONY, ODDO, nor ODDO BHF Corporate & Markets beneficially owns 1% or more of any class of common equity securities of the subject company.
- The research analyst of ODDO BHF Corporate & Markets, at the time of publication of this research report, is not aware, nor does he or she know or have reason to know of any actual, material conflict of interest of himself or herself, ODDO, ODDO BHF Corporate & Markets or ONY, except those mentioned in the paragraph entitled "Risks of Conflicts of Interest."
- ODDO BHF Corporate & Markets or ODDO may receive or seek compensation for investment banking services in the next 3 months from the subject company of this Research Report, but ONY would not participate in those arrangements.
- Neither ONY, ODDO, ODDO BHF Corporate & Markets has received compensation from the subject company in the past 12 months for providing investment banking services except those mentioned in the paragraph of "Risks of Conflict of Interest".
- Neither ONY, ODDO, ODDO BHF Corporate & Markets has managed or co-managed a public offering of securities for the subject company in the past 12 months except those mentioned in the paragraph of "Risk of Conflict of Interest".
- ONY does not make (and never has made) markets and, accordingly, was not making a market in the subject company's securities at the time that this research report was published.

**Regulation AC:** ONY is exempt from the certification requirements of Regulation AC for its distribution to a U.S. person in the United States of this Research Report that is prepared by an ODDO BHF Corporate & Markets research analyst because ODDO has no officers or persons performing similar functions or employees in common with ONY and ONY maintains and enforces written policies and procedures reasonably designed to prevent it, any controlling persons, officers or persons performing similar functions, and employees of ONY from influencing the activities of the third party research analyst and the content of research reports prepared by the third party research analyst.

Contact Information of firm distributing research to U.S. investors: ODDO BHF New York Corporation, MEMBER: FINRA/SIPC, is a wholly owned subsidiary of ODDO BHF SCA; Philippe Bouclainville, President (pbouclainville@oddonny.com) 150 East 52nd Street New York, NY 10022 212-481-4002.