

## CREDIT OPINION

20 December 2016

Update

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### RATINGS

#### Barry Callebaut AG

Domicile	Switzerland
Long Term Rating	Ba1
Type	LT Corporate Family Ratings
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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## Barry Callebaut AG

### Annual Update after 2016 Full Year Results

#### Summary Rating Rationale

Barry Callebaut's Ba1 rating reflects (1) the company's leading market position as a manufacturer of both chocolate and cocoa products; (2) its geographical footprint with an established presence in all major global markets and a growing contribution from the emerging markets; (3) the stable nature of the chocolate market which exhibits steady growth rates; (4) its resilient profitability in the chocolate segment due to pass-on mechanism/hedging strategy of the commodity risk; and (5) its improved credit metrics driven by positive free cash flow.

The rating is constrained by (1) high leverage (although improving) due to acquisition of Petra Foods Cocoa Business in 2012 and the ongoing investment in new capacity; (2) risk of cocoa supply disruption due to the instability of the producing countries; (3) volatility in the cocoa segment's operating performance.

Moody's adjusted operating profit declined marginally by 4% in 2016 due to the challenging market conditions in the cocoa segment which reported a decline of 63% in the operating result. That was mitigated by stronger operating performance in the chocolate segment. Despite weakened operating performance, operating cash flow increased materially driven by a significant reduction in working capital in line with the company strategy announced in December 2015. As a result, Moody's adjusted net leverage (net debt to EBITDA) improved to 3.8x from 4.2x.

While the current metrics remain relatively weak for the rating, net leverage started to improve driven by the positive free cash flow generation. Going forward, we expect that Barry Callebaut will continue to achieve stable earnings growth, driven by rising volumes and the implementation of the profitability enhancement strategy, combined with stabilizing/improving market conditions in the cocoa segment. We expect free cash flow to remain positive driven by flat working capital needs. As a result, we expect an additional improvement in the credit metrics with leverage to decline towards 3.5x by 2018 and RCF to net debt to strengthen towards 20%.

#### Credit Strengths

- » Leading market position as a manufacturer of both chocolate and cocoa products
- » Steady growth rate in the chocolate segment
- » Hedging strategy and cost-control initiatives underpin margin predictability
- » Cocoa leadership project and 'smart' growth to support profitability

- » Improved credit metrics driven by positive free cash flow

## Credit Challenges

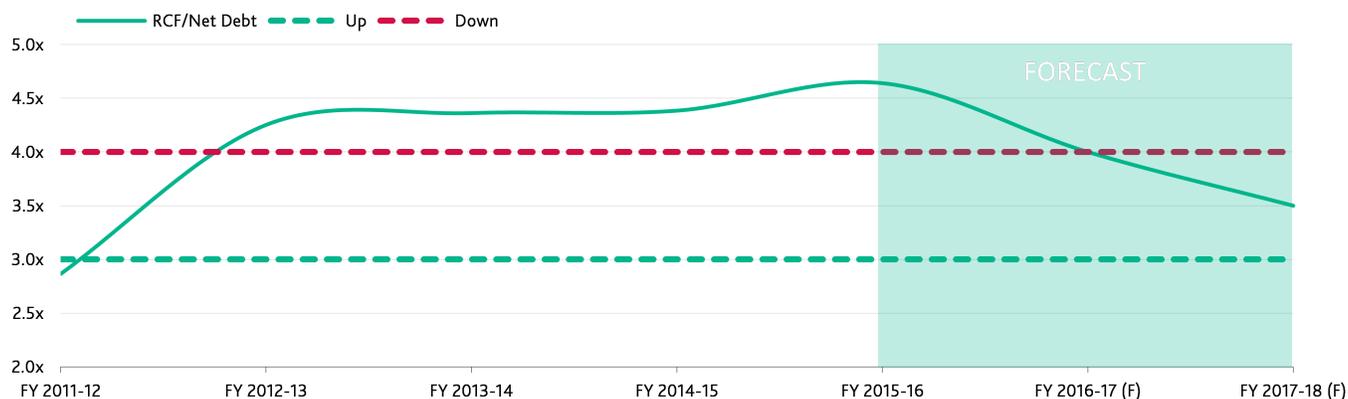
- » Relatively high leverage for the rating
- » Cocoa supply disruption risks inherent to the industry
- » Operating performance in the cocoa segment remains volatile

## Rating Outlook

The rating outlook is stable, reflecting Barry Callebaut's solid business profile and operating performance despite elevated leverage. It reflects our expectation that the company's key credit metrics will gradually improve but also that the pace of improvement could be constrained by working capital needs.

Exhibit 1

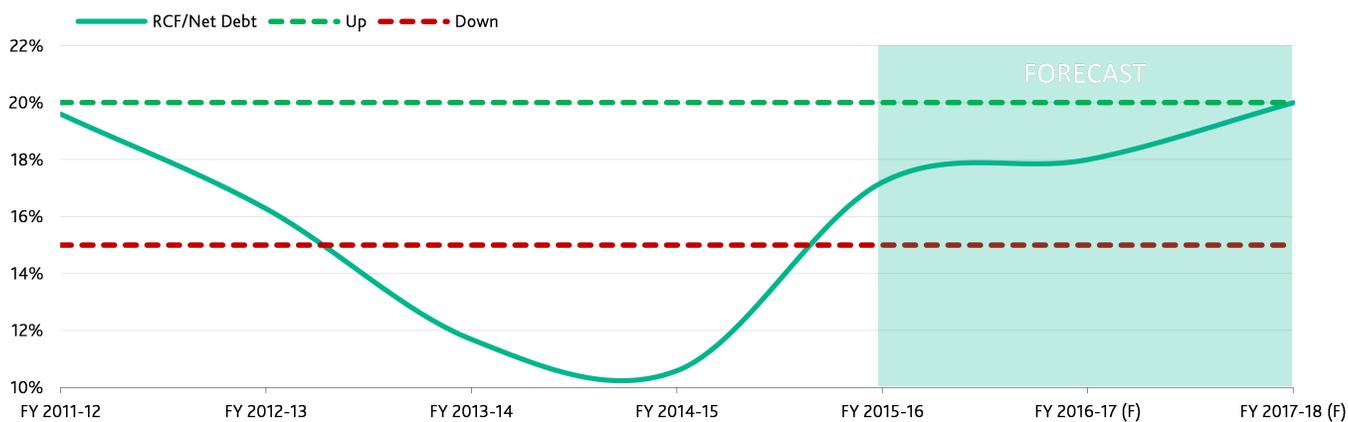
### Adjusted Gross Debt / EBITDA



Gross leverage at 2016 is inflated due to the unusually large cash position present on balance sheet as the company pre-funded most of the €350 million bond maturing in 2017  
 Source: Moody's Financial Metrics™ and Moody's Forecasts

Exhibit 2

### Adjusted RCF / Net Debt



Source: Moody's Financial Metrics™ and Moody's Forecasts

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on [www.moody.com](http://www.moody.com) for the most updated credit rating action information and rating history.

## Factors that Could Lead to an Upgrade

Positive rating pressure could develop if, in conjunction with satisfactory liquidity, Barry Callebaut (1) improved its adjusted EBITDA margins towards double-digit levels in percentage terms; (2) further reduced its adjusted gross debt/EBITDA ratio towards 3.0x; and (3) increased its RCF/net debt ratio above 20%.

## Factors that Could Lead to a Downgrade

Negative pressure could be exerted on the ratings if (1) the company failed to maintain its adjusted EBITDA margins at high single-digit levels in percentage terms; (2) its credit metrics remained weak, with adjusted leverage not expected to return below 4.0x and RCF/net debt not returning in the mid-teens in percentage terms by the end 2017, and with further progression thereafter; (3) supply risk were to renew; or (4) the company's liquidity deteriorates.

## Key Indicators

Exhibit 3

### Barry Callebaut AG

CHF Millions	Aug-11	Aug-12	Aug-13	Aug-14	Aug-15	LTM (Aug-16)
Revenue	4,460	4,830	4,884	5,866	6,242	6,677
EBIT	425	398	371	416	412	388
EBIT Margin %	9.5%	8.2%	7.6%	7.1%	6.6%	5.8%
CFO / Net Debt	16.4%	13.9%	17.0%	0.6%	7.7%	31.7%
Debt / EBITDA	2.3x	2.9x	4.3x	4.4x	4.4x	4.6x
EBITA / Interest Expense	6.0x	5.2x	4.4x	3.8x	3.5x	3.5x
Debt / Book Capitalization	50.1%	51.2%	53.7%	56.2%	56.7%	55.2%
RCF / Net Debt	21.0%	19.6%	16.3%	11.7%	10.6%	17.2%

All figures and ratios are calculated using Moody's estimates and standard adjustments.

Moody's Forecasts (f) or Projections (proj.) are Moody's opinion and do not represent the views of the issuer.

Periods are Financial Year-End unless indicated. LTM = Last Twelve Months.

Source: Moody's Financial Metrics™

## Detailed Rating Considerations

### LEADING MARKET POSITION AS A MANUFACTURER OF BOTH CHOCOLATE AND COCOA PRODUCTS

Barry Callebaut is a fully-integrated business, sourcing cocoa beans directly from the farmers, converting them into cocoa ingredients (butter, liquor and powder) and manufacturing chocolate, chocolate fillings, decorations and compounds, and nut-based products. In a highly concentrated market, the company is the market leader in both industrial chocolate and cocoa grinding capacity, ahead of [Cargill Incorporated](#) (A2 stable) and Olam International Limited (unrated). Cargill is the second-largest player with less than half of Barry Callebaut's market share.

### STEADY GROWTH RATE IN THE CHOCOLATE SEGMENT, AHEAD OF THE MARKET BUT WEAK GLOBAL COCOA BUSINESS

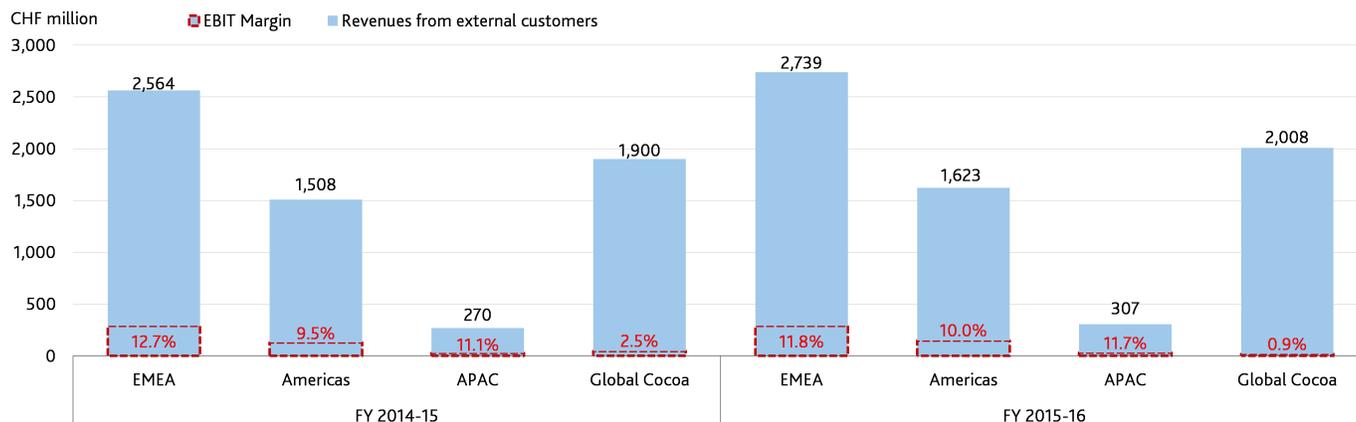
Barry Callebaut posted another year of strong volume growth in the chocolate business with volumes up 7.6% in 2015-16; that was materially higher than the total market which was down 1.7% according to Nielsen data. This growth in volumes continued to be driven by a positive contribution from (1) the emerging markets, with volumes up 6.1%, representing 34% of the group's total sales in volume; (2) long-term outsourcing agreements, driving volumes up 4.5% (slowing down from +6.6% last year) and representing 34% of total group sales; and (3) the Gourmet and Specialties, with volumes rising by 12.4%, representing 11% of total group sales. Europe remains Barry Callebaut's biggest source of revenues with a contribution to sales volumes of 44%.

The company's operating performance in the global cocoa segment weakened as a result of challenging market conditions; the combination of the high price of cocoa beans and weak prices for cocoa butter and cocoa powder resulted in a very low combined ratio, which expresses the combined sales prices for cocoa butter and cocoa powder in relation to the cocoa bean price and the cost structure.

Because of that, EBIT (in constant currency excluding translational FX) from the cocoa business declined by 60.3%. The decline was mitigated by stronger EBIT in the chocolate business: +4.4% in Europe, +12.0% in Americas and +17.9% in APAC. Contribution from chocolate/cocoa segments to the total EBIT (before corporate costs) was 97%/3% at 2016 (90%/10% in 2015).

Exhibit 4

**Strong Chocolate Segment offset by Weak Global Cocoa Segment breakdown for external revenues and EBIT margin as reported by the company**



Source: Annual Reports

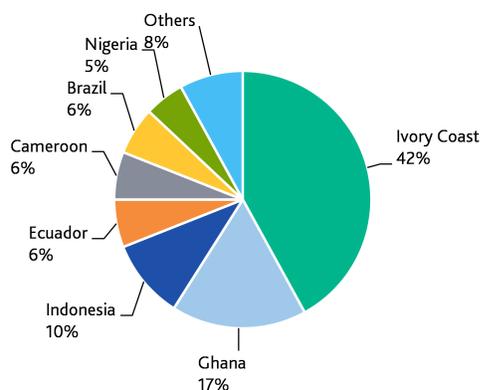
Profitability in 2016 was also negatively impacted by adverse FX movements, as the company had to translate its profits generated from outside Switzerland and in other currencies into Swiss francs at a lower exchange rate. As a result, the company's total reported EBIT declined by 3.2% to CHF 402 million but was flat at +0.1% in local currencies.

**COCOA SUPPLY DISRUPTION RISKS INHERENT TO THE INDUSTRY**

The main cocoa-growing areas are West Africa, representing approximately 72% of world supply, according to the International Cocoa Organization (ICCO), followed by South America and South East Asia. The cocoa market is very concentrated, with the Ivory Coast accounting for around 42% of the global cocoa bean output, as show in exhibit 5. In addition to the risk of plant disease epidemics and unfavourable climate, which can negatively affect crop yield, the political risk in the main producing countries is a consideration when assessing the credit strength of manufacturers of cocoa and chocolate products. As a result, cocoa prices are extremely volatile, as shown in exhibit 6. Although higher cocoa bean prices are fully passed on to customers in the chocolate business, and/or mitigated be the company hedging strategy, the high volatility can increase the company's working capital needs.

Exhibit 5

### Ivory Coast is by far the main cocoa bean producer in the world Market share by country of the global production of cocoa beans



ICCO estimates, 2014-2015

Exhibit 6

### Cocoa Price Started to Plummet Price for the Ivory Coast Cocoa Beans on the ICE market



Price expressed in USD per 10 metric tonnes  
Factset

Despite Barry Callebaut's efforts to diversify its sources and to build strong business relations with cocoa farmers, the company's reliance on politically unstable countries for cocoa beans supply is credit negative, although we recognise that it is an industry-wide, rather than a company-specific, issue. The acquisition of Petra has helped to diversify Barry Callebaut's sourcing of cocoa beans into Asia and Brazil, but we expect that the business and industry in general will remain reliant on the Ivory Coast.

#### HEDGING STRATEGY AND COST-CONTROL INITIATIVES UNDERPIN MARGIN PREDICTABILITY FOR THE CHOCOLATE BUSINESS

Barry Callebaut's rating is supported by the company's track record in terms of operating margin predictability in the chocolate segment, despite volatile cocoa bean prices, as shown in exhibit 7. The company hedges cocoa price risks via physical beans or futures contracts from the time the customer has signed the contract. The selling price established for the client at the delivery date is based on the forward price at the contract date, thereby eliminating risks associated with cocoa price volatility.

Barry Callebaut's cost-plus business model, which covers of the majority its sales volumes, enables the company to pass raw material price increases onto its clients and therefore limits its exposure to raw material cost volatility.

The operating performance in the cocoa business is more volatile due to the exposure of the spread between cocoa bean and cocoa butter/powder prices. However, despite the intrinsic volatility, the cocoa business is beneficial to the chocolate business, as it allows to better control quality and coordinate the delivery of raw materials or other supplies.

Exhibit 7

### The Chocolate segment EBIT margin is very stable, due to the "Cost +" system

Segment	Metrics	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Cocoa	Revenues	1,112	1,335	1,127	1,756	1,900	2,008
	EBIT	77	65	42	82	47	18
	EBIT margin	6.9%	4.9%	3.7%	4.7%	2.5%	0.9%
Chocolate	Revenues	3,348	3,495	3,757	4,110	4,341	4,669
	EBIT	341	352	388	422	447	469
	EBIT margin	10.2%	10.1%	10.3%	10.3%	10.3%	10.0%

Source: Annual Reports

#### COCOA LEADERSHIP PROJECT AND 'SMART' GROWTH TO SUPPORT PROFITABILITY IN THE MID TERM

In response to the challenging cocoa market environment, in 2015 Barry Callebaut's management had started the "Cocoa Leadership Project", which helps to leverage the company's global scale and expertise in cocoa, and to improve the profitability of the global cocoa segment. Under the project, the company aims (1) to reduce the commodity product offering and focus more on differentiation and premiumisation of the cocoa powder range; (2) to centralise some key strategic activities and decision making, such as the management of the combined ratio, which is currently done regionally; and (3) to optimise the cocoa manufacturing footprint and the global products flow with the objective of having the lowest global cost position.

Barry Callebaut maintains its mid-term average sales volume growth forecast at 4%-6% (lowered last year from 6%-8%) per annum until 2018 and remains focused on disciplined ("SMART") growth targets. Volume expansion will continue to be driven by its three key growth drivers: (1) increasing demand for chocolate products in emerging markets; (2) continued growth in its Gourmet and Specialties product range; and to a lesser extent from (3) additional outsourcing agreements and strategic partnerships. Particularly with regard to the last point, the company targets more selective, profitable growth, mainly coming from partnerships with regional players in the emerging markets.

In 2015, management had also outlined a project to reduce its working capital by CHF 300 million in three years, mainly through a reduction in inventories both in terms of beans and cocoa products, as well as through better planning for the chocolate inventories. In 2016, the company outperformed the target of CHF 100 million set for the year, reporting an inflow of CHF 193 million. However, that was also driven by some one-off items including unusually low inventory of cocoa beans, due to bad quality of crop in Brazil and Indonesia; as well as some positive inflow on the hedging book. For 2017, the company targets flat working capital levels.

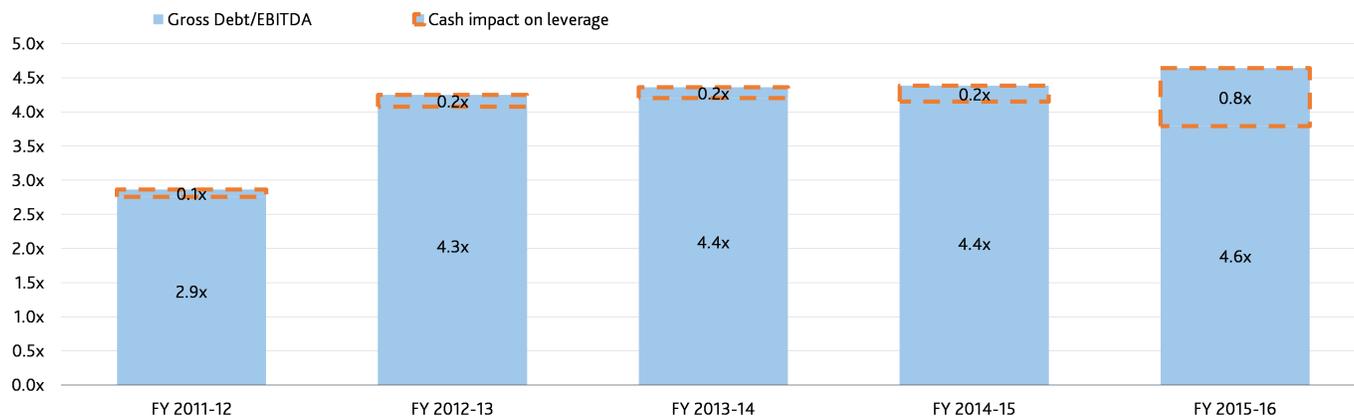
#### IMPROVED CREDIT METRICS DRIVEN BY POSITIVE FREE CASH FLOW

Moody's adjusted operating profit declined marginally by 4% in 2016 to CHF 406 million (CHF 424 million in 2015) due to the challenging market conditions in the cocoa segment which reported a decline of 63% in the operating result. That was mitigated by stronger operating performance in the chocolate segment with EBIT up 4.8%.

Despite the lower operating profit, operating cash flow increased materially to CHF 621 million (CHF 227 million in 2015), driven by significant working capital reductions in line with the company strategy. With capex marginally down to CHF 201 million (CHF 249 million), and dividends stable at CHF 85 million, free cash flow strengthened materially to CHF 339 million, leading to a reduction in the reported net debt to CHF 1.5 billion (CHF 1.7 billion in 2015). Moody's adjusted net debt of CHF 2 billion (CHF 2.2 billion in 2015) mainly includes an adjustment of CHF 368 million for the securitization programme, and CHF 164 million for pension obligations. Adjusted net leverage (net debt to EBITDA) improved to 3.8x from 4.2x. Adjusted retained cash flow (RCF) to net debt strengthen to 17.2% from 10.6%.

Moody's-adjusted gross leverage increased marginally at 4.4x (4.4x in 2015) as the company pre-funded most of its €350 million bond maturing in July 2017, resulting in an unusually large cash position at the year end, as shown in exhibit 8.

Exhibit 8  
**2016 Gross Leverage Inflated by the Large Cash Position**  
 Moody's Adjusted Gross Leverage Evolution



Source: Moody's Financial Metrics™

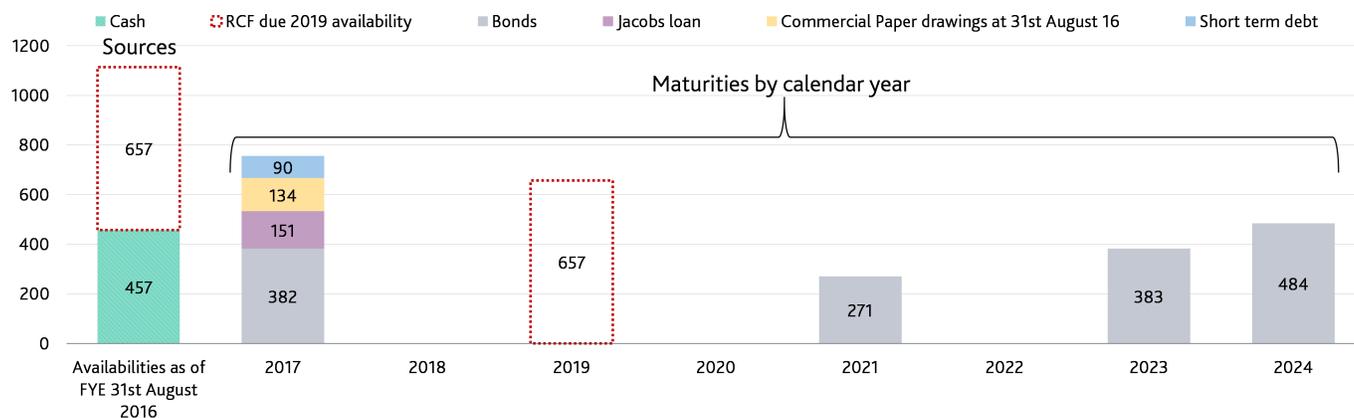
We expect EBIT to increase in the high single digit rate in the next 12-18 months, driven by a volumes increase of 4%-6% in the chocolate segment, combined with the company's implementation of the profitability enhancement strategy, as well as the improvement of the underlying market conditions in the cocoa segment. That would be driven by an improvement in the combined ratios following a moderation in cocoa bean prices and stronger cocoa butter prices.

Despite the stronger operating performance, we expect a more modest improvement in cash flow as we assume the working capital to be relatively flat in the next 12-18 months, in line with the company guidance. However, with stable capex at CHF 200 million p.a. and dividends increasing marginally around 7%, we expect the company to continue to generate positive free cash flow of around CHF 100 million in 2017 and CHF 100 million - CHF 150 million in 2018. As a result, we expect an additional improvement in the credit metrics with leverage to decline towards 3.5x by 2018 and RCF to net debt to strengthen towards 20%.

### Liquidity Analysis

Barry Callebaut's liquidity requirements are significant and difficult to predict because of the volatility of cocoa prices, which can be affected by weather conditions, investor speculation and political events. A material and sharp increase in cocoa prices, as experienced over 2013-15, resulted in unfavourable swings in working capital, requiring credit facilities to cover variable and unpredictable needs.

Exhibit 9  
**The company has enough cash to repay the €350 million bond due in July 2017**



Source: Annual Report

Short term maturities at 2016 amounted to CHF 756 million and include: a CHF 382 million bond maturing in July 2017; a CHF 150 million loan with its main shareholder Jacobs Holdings AG (unrated) maturing in July 2017; CHF 134 million drawings under the commercial paper programme; and CHF 90 million of other short term debt. Liquidity needs in the next 12-18 are more than covered by existing cash of CHF 457 million and the €600 million committed fully undrawn revolving credit facility. In addition, we expect the company to be free cash flow positive.

The company uses the commercial paper programme and bank overdrafts to fund working capital needs and has a €600 million revolving credit facility (fully undrawn as 2016), which provides alternate liquidity. In addition, it has a €400 million in asset-backed securitisation programme of which €326 million was utilised at 2016.

In order to diversify its short-term funding sources and reduce its reliance on the commercial paper market, in 2015 the company entered into two term senior, unsecured loans of CHF 100 million and CHF 150 million with its Jacobs Holding, with the two loans maturing in August 2016 (repaid) and July 2017 respectively. In addition, in May 2016, the company issued a €450 million 8-yr bond.

The €600 million revolving credit facility matures in 2019, and incorporates a €75 million swing-line facility for general corporate and working capital purposes. It also includes an "accordion" option (at the discretion of the banks), potentially increasing the facility amount to €750 million. The revolving credit facility is subject to the following maintenance covenants (to be tested on a semi-annual basis) (1) an interest coverage ratio; (2) a profitability ratio; and (3) minimum tangible net worth. This set of covenants provides Barry Callebaut with greater flexibility given the absence of cash-based ratios, which can fluctuate with working capital cycles. As of the last testing date, end-August 2016, the company was in compliance with the covenants; the tightest headroom was 22.4% under its interest coverage ratio. Positively, the revolving credit facility does not include any leverage covenants, giving Barry Callebaut more flexibility to cope with unfavourable swings in working capital.

## Structural Considerations

Barry Callebaut's Ba1 senior unsecured instrument ratings are in line with the corporate family rating. This reflects the lack of significant structural subordination and that they are fully guaranteed by Barry Callebaut. The company's probability of default rating of Ba1-PD reflects the use of a 50% family recovery rate, consistent with a bank and bond capital structure.

## Profile

Headquartered in Zurich, Switzerland, Barry Callebaut AG is the world's leading supplier of premium cocoa and chocolate products by sales volume, according to the company, servicing customers across the global food industry. Barry Callebaut is fully integrated, from the sourcing of raw material through the production of semi-finished products to the production of industrial chocolate products. The company is divided into three strategic business units: (1) Cocoa Products, which sources cocoa beans and processes semi-finished cocoa products, representing 30% of total sales in value for the financial year 2016; (2) Food Manufacturers, which produces industrial chocolate products for consumer companies or Fast-moving consumer goods (FMCG), accounting for 55% of sales; and (3) Gourmet & Specialties, supplying restaurants, bakeries and hotels, and amounting to slightly less than 15% of sales.

Barry Callebaut reported annual sales of CHF 6.7 billion (around €6.2 billion) and EBITDA of CHF 539 million in 2016. As of 31 August 2016, the company was selling products to 131 countries, operated 53 production facilities and employed 9,898 people. At the same date, the company had a market capitalization of roughly CHF 6.9 billion with the investment company "Jacobs Holding" holding a majority stake and approximately 41% of the capital being floated. The largest institutional investor was the "Massachusetts Mutual Life Insurance Company" with a holding of 3.6%.

## Rating Methodology and Scorecard Factors

Methodology grid: In assessing the credit quality of Barry Callebaut, we apply the Global Protein and Agriculture Industry Methodology (last updated in May 2013). The methodology grid outcome for Barry Callebaut is Ba2, one notch under the Ba1 assigned rating. The gap reflects the fact the current metrics are negatively impacted by the relatively high leverage. However, earnings stability and ongoing improvement in leverage supports the Ba1 rating.

Exhibit 10

### Barry Callebaut AG

Protein and Agriculture Industry Grid [1][2]			Current FY 8/31/2016		Moody's 12-18 Month Forward View As of 12/12/2016 [3]	
Factor 1 : SCALE & DIVERSIFICATION (20%)	Measure	Score	Measure	Score	Measure	Score
a) Total Sales (USD Billion)	\$6.8	Ba	\$7.3 - \$7.6	Ba		
b) Geographic Diversification	Baa	Baa	Baa	Baa		
c) Segment Diversification	B	B	B	B		
Factor 2 : BUSINESS POSITION (25%)						
a) Market Share	Baa	Baa	Baa	Baa		
b) Product Portfolio Profile	Baa	Baa	Baa	Baa		
c) Earnings Stability	Ba	Ba	Ba	Ba		
Factor 3 : FINANCIAL POLICY (15%)						
a) Financial Policy	Ba	Ba	Ba	Ba		
Factor 4 : LEVERAGE & COVERAGE (40%)						
a) CFO / Net Debt	31.7%	Baa	22% - 25%	Ba		
b) Debt / EBITDA	4.6x	B	3.5x - 4x	Ba		
c) EBITA / Interest Expense	3.5x	Ba	3.9x - 5x	Ba		
d) Debt / Book Capitalization	55.2%	Ba	48% - 52%	Ba		
Rating:						
a) Indicated Rating from Grid		Ba2		Ba2		
b) Actual Rating Assigned		Ba1		Ba1		

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

[2] As of 08/31/2016.

[3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures.

Source: Moody's Financial Metrics™

## Ratings

Exhibit 11

Category	Moody's Rating
<b>BARRY CALLEBAUT AG</b>	
Outlook	Stable
Corporate Family Rating	Ba1
<b>BARRY CALLEBAUT SERVICES N.V.</b>	
Outlook	Stable
Senior Unsecured -Dom Curr	Ba1/LGD4

Source: Moody's Investors Service

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