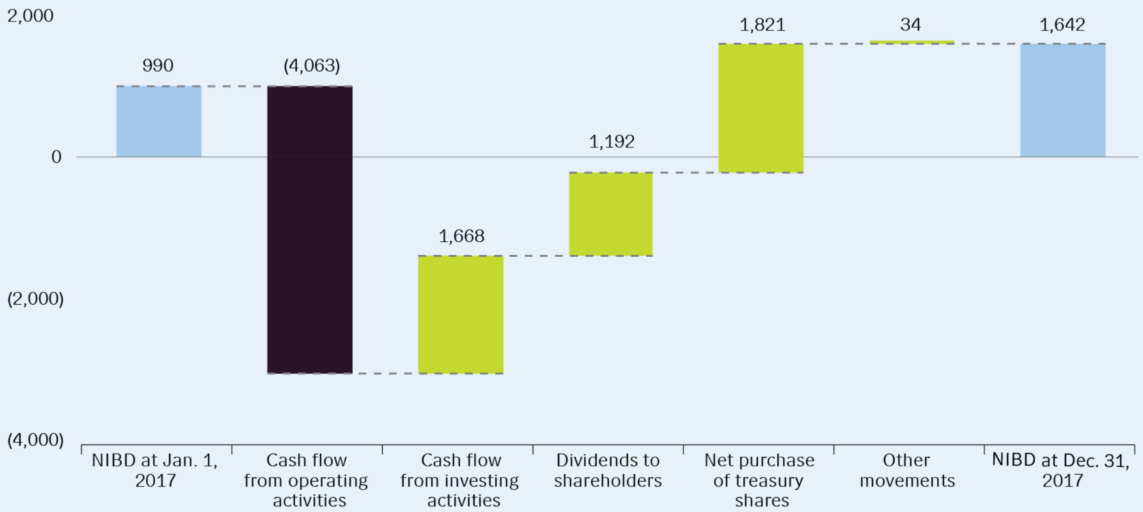
Capital structure and financing

Net interest-bearing debt, 2017

DKK million



NIBD/EBITDA at December 31, 2017

0.3

Return on equity up from 26.1% to

27.1%

Novozymes bought back 6.8 million B shares under the stock buyback program with a transaction value of DKK million

2,000

5.1 Financial risk factors and risk management

Novozymes' international operations mean that our earnings and financial position are exposed to a number of financial risk factors. Financial risks are managed centrally for the entire Group. The Treasury policy is approved by the Board of Directors, and sets the limits for the various financial risks and the derivatives used to hedge the risks. The Treasury Policy is adjusted on an ongoing basis to adapt to the market situation, and contains rules on which derivatives can be used for hedging, which counterparties can be used and the risk profile that is to be applied.

Currency risk

Currency risk arises due to imbalances between income and costs in each individual currency and because Novozymes has more assets than liabilities in foreign currencies in connection with global operations.

Hedging of currency risk is carried out in the currencies where Novozymes has the largest exposure. The hedging is managed by entering into derivatives such as forward contracts, currency options and swaps. Loans and deposits in foreign currencies are also utilized as hedging. Hedge effectiveness is assessed on a regular basis.

Currency risk related to net investments in foreign subsidiaries is hedged where this is deemed appropriate by taking out loans and entering into swaps. Currently, there are no open transactions used to hedge equity investments.

Foreign exchange sensitivity – 2017

The sensitivity analysis below shows the impact on net profit and other comprehensive income of a 5% change in the DKK versus the key currencies to which Novozymes was exposed on December 31, 2017. For other comprehensive income, the analysis shows the impact on currency translation of net investments and does not include the impact of cash flow hedges, as these relate to future commercial transactions.

The sensitivity analysis reflects the transaction and translation risk, and assumes that the exchange rates are changed on December 31, 2017, and that all other variables remain constant. The table below shows the effect of an increase in exchange rates. A decrease in the exchange rate would have an opposite effect.

Foreign exchange sensitivity – 2018 estimate

Operating profit/EBIT is exposed to currency changes, as the effect of hedges is included in financial income/costs. Operating profit/EBIT is mainly exposed to the USD and EUR. A movement of 5% in the USD would result in a change in the expected operating profit/EBIT for 2018 of around DKK 110-130 million (2017: DKK 100-120 million). A 5% movement in the EUR would result in a change in expected operating profit/EBIT for 2018 of around DKK 200 million (2017: DKK 150-200 million). Of the expected USD cash flows for 2018, 100% has been hedged by forward contracts at an average rate of DKK 6.18. As a result, the impact on net profit from changes in the USD has been reduced significantly compared with the impact on operating profit/EBIT.

Foreign exchange analysis		2017		2016	
DKK million	Increase in exchange rates	Change in net profit	Change in other comprehensive income	Change in net profit	Change in other comprehensive income
CHF	5.0%	(4)	74	-	37
CNY	5.0%	(1)	107	-	108
USD	5.0%	1	212	1	229
Other	5.0%	8	85	(2)	93
Total		**4**	**478**	**(1)**	**467**

5.1 Financial risk factors and risk management (continued)

Interest rate risk
Interest rate risk arises in relation to interest-bearing assets and liabilities. In accordance with Novozymes' Treasury Policy, a minimum of 30% of loans must be at fixed interest rates. Hedging of the interest risk is managed by entering into fixed-rate loans and interest rate swaps.

An increase of 1 percentage point in the average interest rate on Novozymes' net interest-bearing debt would have a negative effect on net profit of DKK 2 million (2016: positive effect of DKK 4 million). At December 31, 2017, 72% (2016: 80%) of the loan portfolio was at fixed interest rates.

Credit risk
Credit risk arises especially on cash and cash equivalents, derivatives and trade receivables. The credit risk on trade receivables is countered by thorough, regular analyses based on customer type, country and specific conditions. The credit risk on cash and cash equivalents as well as derivatives is mitigated by the Treasury Policy, which limits exposure solely to counterparties that have an investment-grade credit rating. The credit risk is calculated on the basis of net market values and is governed by the Treasury Policy. Novozymes has entered into netting agreements (ISDA or similar) with all the banks used for trading in financial instruments, which means that Novozymes' credit risk is limited to net assets.

At December 31, 2017, the Group considered its maximum credit risk to be DKK 3,383 million (2016: DKK 3,857 million), which is the total of the Group's financial assets. At December 31, 2017, the maximum credit risk related to one counterparty was DKK 313 million (2016: DKK 294 million).

Liquidity risk
In connection with the Group's ongoing financing of operations, including refinancing, efforts are made to ensure adequate and flexible liquidity. This is guaranteed by using committed credit facilities and placing free funds in deposits, government bonds or ultra-liquid mortgage bonds in accordance with the Treasury Policy.

At December 31, 2017, Novozymes' financial resources amounted to DKK 4,307 million (2016: DKK 4,305 million), consisting of net cash and cash equivalents and undrawn committed credit facilities of DKK 3,944 million, which expire in 2019-2022.

With the exception of debt to credit institutions, the maturity dates are primarily within one year.

5.2 Financial income and Financial costs

DKK million		2017	2016
Interest income		7	5
Gains on cash flow hedges		12	8
Gains on fair value hedges, net		-	1
Other foreign exchange gains, net		71	-
Fair value adjustments of cash-settled stock options		-	18
Financial income	I/S	**90**	**32**
Interest costs		(27)	(31)
Losses on fair value hedges, net		(56)	-
Other financial costs		(24)	(24)
Other foreign exchange losses, net		-	(11)
Write-down of financial asset		(120)	-
Fair value adjustments of cash-settled stock options		(20)	-
Financial costs	I/S	**(247)**	**(66)**
Financial income/costs, net		**(157)**	**(34)**

In 2017, the financial asset related to the partnership with Beta Renewables S.p.A. has been fully written down. This relates to a guarantee provided by M&G in 2015, because 2G projects have not commercialized as expected in Beta Renewables S.p.A. The write-down is a consequence of M&G experiencing financial difficulties. This has resulted in a write-down of DKK 120 million, which is included in Financial costs.

§ ACCOUNTING POLICIES

Financial income and Financial costs comprise interest income and interest costs, realized and unrealized foreign exchange gains and losses, as well as fair value adjustments of cash-settled stock-based incentive programs, which are offset against Other liabilities and fair value adjustments of Other financial assets.

Financial income and Financial costs also include fair value adjustments of derivatives used to hedge assets and liabilities, and income and costs relating to cash flow hedges that are transferred from Other comprehensive income on realization of the hedged item.

5.3 Other financial liabilities

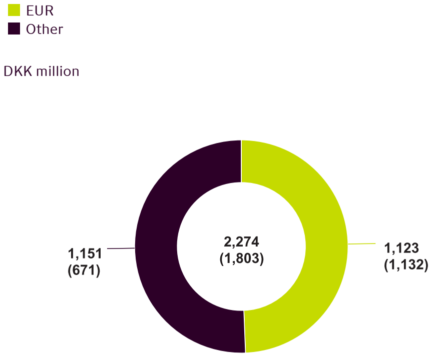
DKK million		2017	2016
Credit institutions		2,274	1,803
Derivatives		17	124
Other financial liabilities at December 31		**2,291**	**1,927**
Recognized in the balance sheet as follows:			
Non-current	B/S	1,312	1,727
Current	B/S	979	200
Other financial liabilities at December 31		**2,291**	**1,927**

Liabilities arising from financing activities

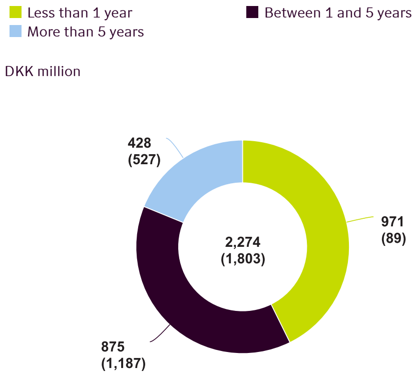
DKK million	2016	Financing cash flows	Foreign exchange movement	Other movements	2017
Long-term borrowing	1,713	-	2	(411)	1,304
Short-term borrowing	83	198	-	420	701
Total liabilities from financing activities at December 31	**1,796**	**198**	**2**	**9**	**2,005**

* Other movements include the effect of reclassification of non-current portion of interest-bearing loans and borrowings.

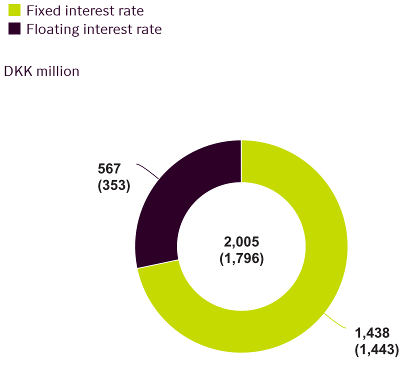
Credit institutions – currency 2017 (2016)



Credit institutions – time to maturity 2017 (2016)



Loan portfolio – fixed or floating interest rate 2017 (2016)



5.4 Derivatives – hedge accounting

Fair value hedges

The table below shows the derivatives the Group has contracted to hedge currency exposure on financial assets and liabilities that give rise to currency adjustments in the income statement.

DKK million	2017 Contract amount based on agreed rates*	2017 Fair value Dec. 31	2016 Contract amount based on agreed rates*	2016 Fair value Dec. 31
Forward exchange contracts				
CAD	(332)	2	(340)	(5)
CHF	(1,453)	(1)	(693)	-
USD	280	1	103	(2)
Other	175	(2)	(170)	(5)
Fair value hedges at December 31	**(1,330)**	**-**	**(1,100)**	**(12)**

* Positive contract amounts represent a sale of the respective currency, and negative amounts represent a purchase.

The forward exchange contracts fall due in the period January 2018 to May 2018 (2016: January 2017 to April 2017).

The fair value hedges were 100% effective, as the gain on forward exchange contracts was DKK 56 million (2016: gain of DKK 0.4 million), compared with a loss on the hedged items of DKK 56 million (2016: loss of DKK 0.4 million).

§ **ACCOUNTING POLICIES**

Hedge accounting consists of positive and negative fair values of derivatives, which are recognized in the balance sheet under Other financial assets and Other financial liabilities respectively.

Derivatives used for fair value hedges are measured at fair value on the reporting date, and value adjustments are recognized as Financial income or Financial costs.

Derivatives used for cash flow hedges and hedges of net investments in subsidiaries are measured at fair value on the reporting date, and value adjustments are recognized in Other comprehensive income.

Income and costs relating to cash flow hedges and hedges of net investments in subsidiaries are transferred from Other comprehensive income on realization of the hedged item and are recognized as Financial income or Financial costs.

Derivatives are recognized at the transaction date.

5.4 Derivatives – hedge accounting (continued)

Cash flow hedges

The table below shows the derivatives that the Group has contracted to hedge currency and interest rate exposure in future cash flows.

	2017		2016	
DKK million	Contract amount based on agreed rates*	Fair value Dec. 31	Contract amount based on agreed rates*	Fair value Dec. 31
Forward exchange contracts				
USD	1,855	11	1,797	(95)
	1,855	**11**	**1,797**	**(95)**
Currency options				
USD	-	-	198	3
	-	**-**	**198**	**3**
Interest rate swaps				
EUR/EUR - pays fixed rate of 3.58% / earns variable rate of (0.273%) (2016: (0.191%)	112	(9)	111	(13)
DKK/DKK - pays fixed rate of 0.595% / earns variable rate of (0.165%) (2016: 0.025%)	521	(2)	521	(3)
	633	**(11)**	**632**	**(16)**
Cash flow hedges at December 31	**2,488**	**-**	**2,627**	**(108)**

* Positive contract amounts represent a sale of the respective currency, and negative amounts represent a purchase.

The forward exchange contracts fall due in the period January 2018 to December 2018 (2016: January 2017 to December 2017), and the swaps fall due in July 2019 and May 2026(2016: July 2019 and May 2026).

At the end of 2017, the Group had hedged 100% of expected future cash flows in USD for 2018 at an average rate of DKK 6.18 (2016: 100% of expected future cash flows in USD for 2017 at an average rate of DKK 6.65).

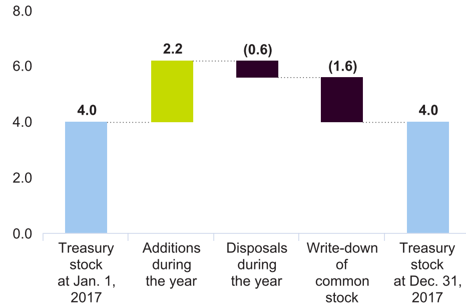
5.5 Common stock and treasury stock

	2017		2016	
	No.	Nominal value DKK million	No.	Nominal value DKK million
Common stock				
A common stock (shares of DKK 2)	53,743,600	107	53,743,600	107
B common stock (shares of DKK 2)	251,256,400	503	256,256,400	513
Common stock at December 31 B/S	**305,000,000**	**610**	**310,000,000**	**620**
Treasury stock - B stock				
Treasury stock at January 1	12,381,738	25	9,618,693	19
Additions during the year	6,770,271	13	6,767,182	14
Disposals during the year	(2,100,913)	(4)	(1,004,137)	(2)
Cancellation of common stock	(5,000,000)	(10)	(3,000,000)	(6)
Treasury stock at December 31	**12,051,096**	**24**	**12,381,738**	**25**

No.	2017	2016
Shares of common stock in circulation		
Shares of stock at January 1	297,618,262	303,381,307
Purchase of treasury stock	(6,770,271)	(6,767,182)
Sale of treasury stock	2,100,913	1,004,137
Shares of common stock in circulation at December 31	**292,948,904**	**297,618,262**

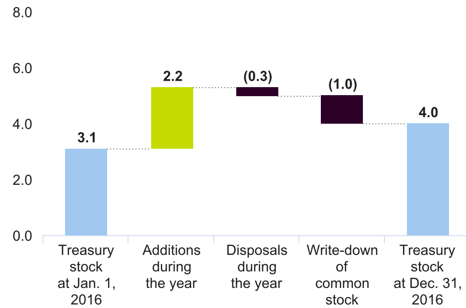
Treasury stock 2017

% of common stock



Treasury stock 2016

% of common stock



Each A share gives an entitlement to 20 votes, while each B share gives an entitlement to two votes.

Each year the Board of Directors assesses whether the ownership structure with A and B common stock is optimal. The Board of Directors maintains that this is the best way to safeguard Novozymes' long-term development to the benefit of the company's shareholders and other stakeholders.

The treasury stock is used to reduce the common stock, and to hedge employees' exercise of granted stock awards and stock options.

In 2017, Novozymes canceled 5 million treasury shares, reducing the common stock to 305 million shares.

5.6 Financial assets and liabilities by category

The table below shows the Group's financial assets and financial liabilities at December 31 by category.

DKK million	Note	2017	2016
Trade receivables and other receivables, excl. prepaid expenses	4.2, 4.3	2,706	2,890
Cash and cash equivalents	6.6	632	812
Loans and receivables		**3,338**	**3,702**
Other financial assets		29	151
Available-for-sale financial assets		**29**	**151**
Derivatives		16	4
Hedge accounting (asset)		**16**	**4**
Financial assets		**3,383**	**3,857**
Credit institutions	5.3	(2,274)	(1,803)
Trade payables		(1,341)	(1,194)
Other payables	4.5	(783)	(686)
Financial liabilities at amortized cost		**(4,398)**	**(3,683)**
Derivatives	5.3	(17)	(124)
Hedge accounting (liability)		**(17)**	**(124)**
Financial liabilities		**(4,415)**	**(3,807)**

Measurement and fair value hierarchy
All financial assets and liabilities, except for derivatives, are measured at cost and amortized cost. The carrying amounts for these approximate fair value. Derivatives are measured at fair value based on observable data (level 2 input) according to the fair value hierarchy. The derivatives are not traded on an active market based on quoted prices, but are individual contracts. The fair value of these assets is determined using valuation techniques that utilize market-based data such as exchange rates, interest rates, credit risk and volatilities. There are no financial instruments measured at fair value on the basis of quoted prices (level 1 input) or non-observable data (level 3 input).