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## Danfoss A/S

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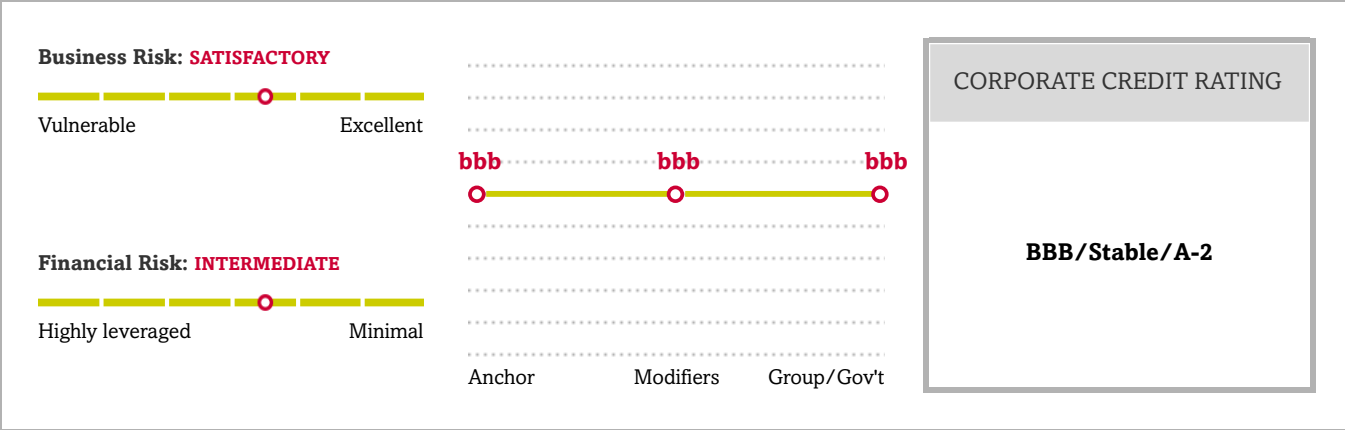
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# Danfoss A/S



## Rationale

Business Risk: Satisfactory	Financial Risk: Intermediate
<ul style="list-style-type: none"> <li>• Leading market positions in electrical and mechanical components in a number of industry segments.</li> <li>• Good degree of customer, end market, and geographic diversity.</li> <li>• Good cost position, resulting in high EBITDA margins, which are at the upper end of the 11%-18% range that we view as average in the capital goods sector.</li> <li>• Exposure to cyclical demand and pricing competition.</li> </ul>	<ul style="list-style-type: none"> <li>• Track record of robust cash flow generation.</li> <li>• Strong liquidity and well-spread debt maturity profile.</li> <li>• Growth-oriented strategy, with a number of acquisitions over recent years.</li> <li>• Limited access to equity, owing to status as a privately held company.</li> </ul>

**Outlook: Stable**

The stable outlook on Denmark-headquartered capital goods company Danfoss A/S reflects S&P Global Ratings' expectation that the company will keep delivering profitable growth during the next 24 months with adjusted EBITDA margin progressively converging towards 17%. In our base-case scenario, we consider that given the group's focus on digitalization, the EBITDA margin improvement will be limited to 20-50 basis points while the level of capital expenditures (capex) will somewhat accelerate to about 5% of sales. This will translate into funds from operations (FFO) to debt of about 40%-45% by end-2017 before further strengthening from 2018 toward 45%-50%. We don't rule out that Danfoss could capture such ample headroom toward our 30% threshold, given its stated acquisitive strategy.

**Upside scenario**

Given Danfoss' strong cash flow generation, we see some potential for a one-notch upgrade over the medium term. A positive rating action would likely depend on Danfoss' ability to sustain adjusted FFO to debt above 45% and adjusted debt to EBITDA at below 2x, alongside management's commitment to stick to such levels throughout the cycle and in light of its acquisitive strategy.

**Downside scenario**

We could consider a negative rating action if there was a significant deterioration in Danfoss' credit metrics due to weakening operating performance or an aggressive debt-financed acquisition, resulting in adjusted FFO to debt below 30% on a sustained basis.

## Our Base-Case Scenario

Assumptions	Key Metrics			
<ul style="list-style-type: none"> <li>The pace of U.S. economic expansion will likely continue over the next year, and we expect real GDP growth of 2.2% this year and 2.3% in 2018. We anticipate eurozone GDP growth to strengthen to 2.0% this year and to 1.7% in 2018.</li> <li>We expect 5%-6% revenue growth as a result of expansion in the construction and agriculture markets in Brazil and China (North America and Europe continued to remain soft) and increasing momentum in high potential growth markets, e.g. India and China, further supported by accretive acquisitions of White Drive Products and Sondex, which on an aggregate basis generated sales in excess of Danish krone (DKK) 1 billion (approximately more than €130 million).</li> <li>We expect EBITDA margins to remain stable around 16%-17%, as we consider that a great portion of the benefits from the productivity improvement will be entitled to digitalization costs and very partly absorbed by integration costs.</li> <li>Inflow of DKK100 million, because working capital has been an inflow rather than outflow over the past two years.</li> <li>Increased capex to 5% of sales at about DKK2 billion given the group's continuous investment in growth initiatives and digitalization.</li> <li>Shareholder returns of about DKK1 billion through dividends (on average 20%-30% of net income) and sharebuybacks.</li> <li>Bolt-on acquisitions for an overall amount of DKK2.0 billion in 2017 followed by an annual estimate of DKK1.5 billion thereafter. While we don't discard largest strategic acquisitions, we expect the company to show clear commitment to its 'BBB' rating.</li> </ul>	<b>2016a</b>	<b>2017f</b>	<b>2018f</b>	
	EBITDA margin (%)	16.4	16.0-17.0	16.0-17.0
	FFO to debt (%)	41.9	40.0-45.0	45.0-50.0
	Debt to EBITDA (x)	1.9	1.5-2.0	1.0-1.7
<p>Note: Margins and ratios include S&amp;P Global Ratings' debt adjustments for operating leases and postretirement obligations. FFO--Funds from operations. a--Actual. f--Forecast.</p>				

## Company Description

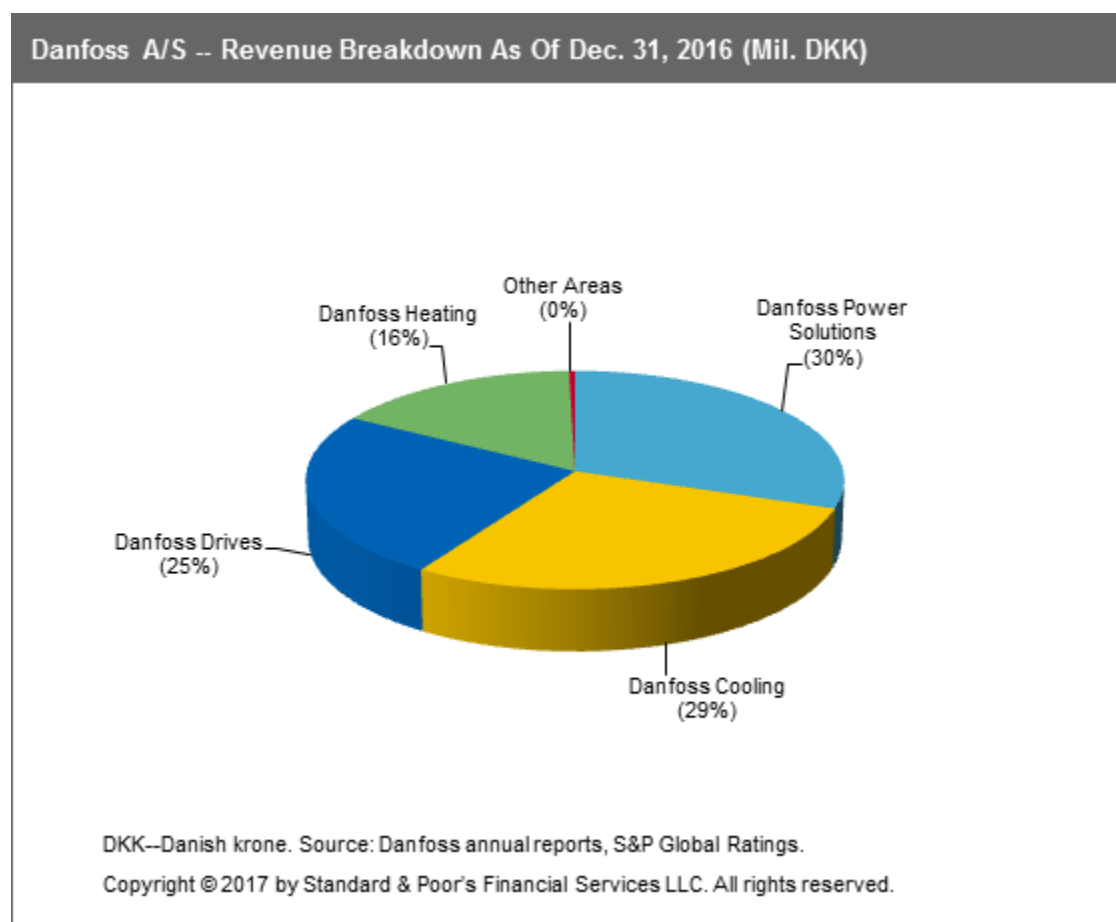
Danfoss is a leading producer of electrical and mechanical components in a number of industry segments. With revenues of about DKK39 billion (about €5.3 billion) and EBITDA of DKK6.2 billion (approximately €838 million) in 2016, Danfoss is a mid-sized European capital goods company.

Danfoss' operations are divided into four segments:

- Danfoss Power Solutions: Hydraulic systems and electronic components. End markets include cyclical end markets such as agriculture, construction and material handling, and specialty equipment.
- Danfoss Cooling: Components for the air conditioning and refrigeration industry. End markets include air conditioning and commercial and industrial refrigeration.
- Danfoss Drives: Development and production of low-voltage drives and power modules. End markets are fairly diverse, comprising several industrial sectors, including heating, ventilation, air conditioning, mining, lifts and elevators, food and beverage, automotive, and wind.
- Danfoss Heating: Heating components for residential and commercial heating and district energy for cities. End markets including heating, ventilation, and air-conditioning systems.

Danfoss is a privately-held company and controlled by the Bitten and Mads Clausen Foundation. The foundation and the Clausen family hold 99.8% of the voting shares.

**Chart 1**



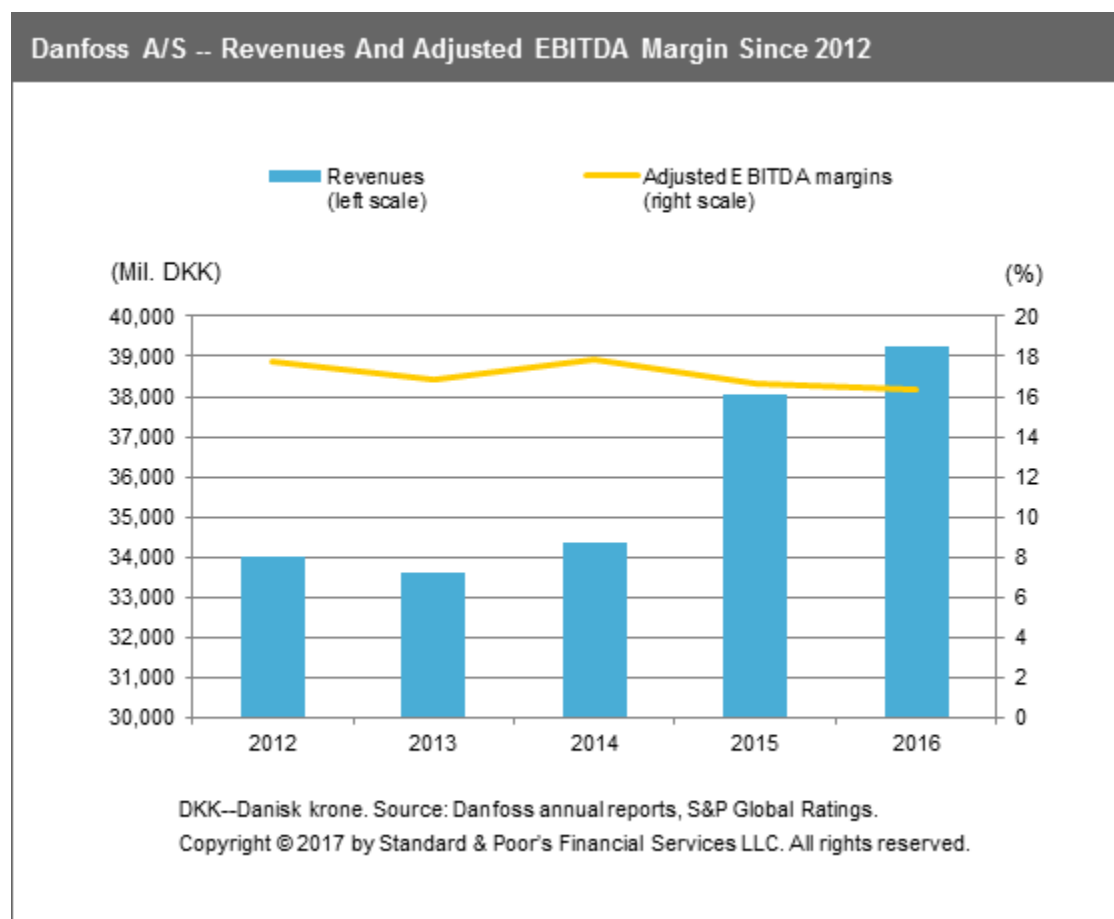
## Business Risk: Satisfactory

Danfoss' business risk profile is supported by the company's leading market positions for electrical and mechanical components in a number of industry segments. During 2016, Danfoss delivered positive organic growth despite a particularly challenging operating environment. We expect this trend to gain further traction in the foreseeable future given an environment that tends to be supportive with a better macroeconomic outlook, commodity markets stabilizing, and a return to inflationary territory in Europe, which altogether should sustain investment activity.

We also view positively the company's good degree of customer end-market diversification from agricultural to construction, including industrial refrigeration and material handling. Its fairly good geographic diversification further supports our assessment, given its presence in more than 100 countries across Europe (47% of revenues in 2016), North America (24%), Asia Pacific (21%), and Africa Middle East and Latin America (aggregate 8%).

Other positive factors are Danfoss' good profitability. The group's focus on cost efficiency executed in 2008-2010, followed by a growth oriented strategy (notably with the acquisition of Vacon), translated into adjusted EBITDA margin maintained in the 16%-17% range, thereby positioning Danfoss in the upper end of the 11%-18% range that we view as average in the capital goods sector.

**Chart 2**



These strengths are tempered by Danfoss' exposure to cyclical demand in a number of its segments. The power solutions segment showed the most significant decline in the 2008-2009 global financial crisis, with demand being dependent on fairly cyclical end markets. The other segments also showed volatility, but to varying degrees. We understand that the cooling and heating segments are also somewhat dependent on inventory stocking cycles, which exaggerates underlying cyclicality. However, heating has shown the least cyclicality among Danfoss' businesses in the past. Danfoss is also exposed to pricing competition in a number of its segments notably in China and India.

## Peer comparison

**Table 1**

<b>Danfoss A/S -- Peer Comparison</b>					
<b>Industry Sector: Capital Goods/Diversified</b>					
	<b>Danfoss A/S</b>	<b>SKF AB</b>	<b>Sandvik AB</b>	<b>Metso Corp.</b>	<b>Alfa Laval AB</b>
Rating as of July 19, 2017	BBB/Stable/A-2	BBB-/Stable/--	BBB/Positive/A-2	BBB/Stable/A-2	BBB+/Negative/--
<b>--Fiscal year ended Dec. 31, 2016--</b>					
<b>(Mil. €)</b>					
Revenues	5,276.5	7,592.6	8,507.0	2,586.0	3,717.1
EBITDA	865.1	1,040.5	1,730.6	319.0	604.9
Funds from operations (FFO)	675.3	697.6	1,280.7	203.3	432.7
Net income from cont. oper.	359.2	415.7	717.5	130.0	238.8
Cash flow from operations	740.9	853.9	1,254.4	381.8	546.0
Capital expenditures	236.9	229.1	416.3	31.0	64.4
Free operating cash flow	504.0	624.8	838.1	350.8	481.6
Discretionary cash flow	411.2	350.0	511.0	193.8	293.9
Cash and short-term investments	68.4	1,036.8	919.8	807.0	385.3
Debt	1,610.1	3,013.4	3,276.1	238.6	1,481.6
Equity	2,324.0	2,887.7	4,121.0	1,439.0	2,115.1
<b>Adjusted ratios</b>					
EBITDA margin (%)	16.4	13.7	20.3	12.3	16.2
Return on capital (%)	14.6	12.7	16.0	13.2	10.7
EBITDA interest coverage (x)	16.6	10.0	6.2	5.6	13.6
FFO cash int. cov. (X)	19.1	20.1	8.6	9.0	18.8
Debt/EBITDA (x)	1.9	2.9	1.9	0.7	2.5
FFO/debt (%)	41.9	23.1	39.0	85.2	29.2
Cash flow from operations/debt (%)	46.0	28.3	38.2	160.0	36.8
Free operating cash flow/debt (%)	31.3	20.7	25.5	147.0	32.5
Discretionary cash flow/debt (%)	25.5	11.6	15.6	81.2	19.8

We see Alfa Laval (broadly two-thirds of Danfoss) as one of the closest peer to Danfoss given their common competing field in heat exchangers. On the strength of the group's focus on cost efficiency initiated since in 2008-2010, followed by a growth oriented strategy (notably with the acquisition of Vacon), adjusted EBITDA margin remained in the corridor of 16%-17%.

## Financial Risk: Intermediate

Danfoss delivered robust operating results during the first quarter 2017 with revenues increasing by 13% to about DKK11 billion (about €1.4 billion) fueled by growth across most of its segments, contribution from the Sondex and White Drive Products acquisitions and positive foreign-exchange effects. Despite some margin erosion due to integration and digitalization costs, adjusted EBITDA margin weathered in the 16% area as of March 2017 on a rolling 12-month basis. This led to FFO to debt of about 43%.

Healthy profitability and tight working capital management translated into sustainably improving cash flow generation as reflected through FOCF standing at about DKK3.7 billion. Such a high cash conversion ratio is all the more noticeable despite capex incurred for the group's ongoing investment program to capture new growth opportunities and expand its market share while accelerating the investment on digitalization.

Danfoss' proven ability to deliver sustainably robust adjusted FOCF represents a credit supportive factor.

We anticipate that Danfoss will continue to generate solid FOCF, which should help the company to deleverage. We also note Danfoss' commitment to maintaining a 'BBB' rating.

The strengths of Danfoss' financial risk profile are somewhat moderated by the company's focus on expansionary growth that led to a number of acquisitions over recent years. We also consider Danfoss' access to equity as limited owing to its status as a privately held company. This is somewhat balanced by shareholder remuneration levels--with dividend payouts to Danfoss shareholders of no more than 30% of net income in addition to minority dividends--which are lower than most of Danfoss' public Scandinavian peers.

### Our Base-Case Cash Flow And Capital Structure Scenario

- Strong operating performance supporting robust FOCF of DKK3.0 billion-DKK 3.5 billion.
- Adjusted FFO to debt at about 40%-45% and adjusted debt to EBITDA of about 1.5x-2.0x in 2017 before gradually improving toward 45%-50% and about 1.0x-1.7x, respectively, thereafter.

## Financial summary

Table 2

Danfoss A/S -- Financial Summary					
Industry Sector: Capital Goods/Diversified					
	--Fiscal year ended Dec. 31--				
	2016	2015	2014	2013	2012
<b>(Mil. DKK)</b>					
Revenues	39,247	38,031	34,375	33,628	34,007
EBITDA	6,435.5	6,314.0	6,135.0	5,679.5	6,049.5
Funds from operations (FFO)	5,023.2	4,997.9	4,758.6	4,200.7	4,846.3
Net income from continuing operations	2,672.0	2,381.0	2,104.0	2,037.0	1,998.0



Table 2

Danfoss A/S -- Financial Summary (cont.)					
Industry Sector: Capital Goods/Diversified					
	--Fiscal year ended Dec. 31--				
	2016	2015	2014	2013	2012
Cash flow from operations	5,511.2	5,053.9	4,689.6	4,776.7	4,524.3
Capital expenditures	1,762.0	1,300.0	1,224.0	1,183.0	1,175.0
Free operating cash flow	3,749.2	3,753.9	3,465.6	3,593.7	3,349.3
Discretionary cash flow	3,059.2	3,012.9	2,518.6	2,999.7	2,814.3
Cash and short-term investments	509.0	319.0	716.0	737.0	888.0
Debt	11,976.2	11,755.1	14,258.4	6,702.5	6,294.4
Equity	17,286.0	15,424.0	13,242.0	11,443.0	14,193.0
<b>Adjusted ratios</b>					
EBITDA margin (%)	16.4	16.6	17.8	16.9	17.8
Return on capital (%)	14.6	14.4	16.1	18.0	16.3
EBITDA interest coverage (x)	16.6	15.7	20.1	17.4	14.2
FFO cash int. cov. (x)	19.1	18.9	23.0	17.3	9.9
Debt/EBITDA (x)	1.9	1.9	2.3	1.2	1.0
FFO/debt (%)	41.9	42.5	33.4	62.7	77.0
Cash flow from operations/debt (%)	46.0	43.0	32.9	71.3	71.9
Free operating cash flow/debt (%)	31.3	31.9	24.3	53.6	53.2
Discretionary cash flow/debt (%)	25.5	25.6	17.7	44.8	44.7

DKK--Danish krone.

## Liquidity: Strong

We assess Danfoss' liquidity as strong. We expect sources of liquidity to exceed uses by at least 1.5x over the 12 months from March 31, 2017. We also expect that liquidity sources would exceed uses even if EBITDA declined by 30%. We view Danfoss' bank relationships as well established, its credit market standing as high, and its risk management as very prudent. The company does not have any financial covenants.

Principal Liquidity Sources	Principal Liquidity Uses
<ul style="list-style-type: none"> <li>About DKK630 million of total cash as of March 31, 2017 (of which approximately DKK290 million is unrestricted);</li> <li>About DKK5 billion available under a number of long-term committed credit lines as of March 31, 2017; and</li> <li>Cash FFO generation of more than DKK5 billion per year over 2017-2018.</li> </ul>	<ul style="list-style-type: none"> <li>Debt maturities of about DKK 460 million;</li> <li>Working capital seasonality of DKK1.0 billion-DKK1.2 billion;</li> <li>Capex of roughly DKK 2 billion annually; and</li> <li>Dividends of DKK1 billion annually.</li> </ul>

**Debt maturities as of March 31, 2017**

- 2017: DKK 0.8 billion
- 2018-2021: DKK 3.2 billion
- Thereafter: DKK 6.2 billion

**Covenant Analysis**

Danfoss has no financial maintenance covenants with which it needs to comply.

**Ratings Score Snapshot****Corporate Credit Rating**

BBB/Stable/A-2

**Business risk: Satisfactory**

- **Country risk:** Intermediate
- **Industry risk:** Intermediate
- **Competitive position:** Satisfactory

**Financial risk: Intermediate**

- **Cash flow/Leverage:** Intermediate

Anchor: bbb

**Modifiers**

- **Diversification/Portfolio effect:** Neutral (no impact)
- **Capital structure:** Neutral (no impact)
- **Financial policy:** Neutral (no impact)
- **Liquidity:** Strong (no impact)
- **Management and governance:** Satisfactory (no impact)
- **Comparable rating analysis:** Neutral (no impact)

**Reconciliation**

**Table 3**

**Reconciliation Of Danfoss A/S Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. DKK)**

--Fiscal year ended Dec. 31, 2016--

**Danfoss A/S reported amounts**

	<b>Debt</b>	<b>Shareholders' equity</b>	<b>EBITDA</b>	<b>Operating income</b>	<b>Interest expense</b>	<b>EBITDA</b>	<b>Cash flow from operations</b>
Reported	10,246.0	16,432.0	6,076.0	4,262.0	293.0	6,076.0	5,161.0

Table 3

**Reconciliation Of Danfoss A/S Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. DKK) (cont.)**

<b>S&amp;P Global Ratings' adjustments</b>							
Interest expense (reported)	--	--	--	--	--	(293.0)	--
Interest income (reported)	--	--	--	--	--	25.0	--
Current tax expense (reported)	--	--	--	--	--	(1,032.0)	--
Operating leases	913.1	--	364.5	66.0	66.0	298.5	298.5
Postretirement benefit obligations/deferred compensation	810.0	--	--	--	29.0	(46.3)	51.8
Surplus cash	(267.9)	--	--	--	--	--	--
Capitalized development costs	--	--	--	31.0	--	--	--
Dividends received from equity investments	--	--	15.0	--	--	15.0	--
Non-operating income (expense)	--	--	--	25.0	--	--	--
Non-controlling Interest/Minority interest	--	854.0	--	--	--	--	--
Debt - Other	275.0	--	--	--	--	--	--
EBITDA - Income (expense) of unconsolidated companies	--	--	(32.0)	(32.0)	--	(32.0)	--
EBITDA - Gain/(Loss) on disposals of PP&E	--	--	12.0	12.0	--	12.0	--
EBIT - Income (expense) of unconsolidated companies	--	--	--	32.0	--	--	--
Total adjustments	1,730.2	854.0	359.5	134.0	95.0	(1,052.8)	350.2
<b>S&amp;P Global Ratings' adjusted amounts</b>							
	<b>Debt</b>	<b>Equity</b>	<b>EBITDA</b>	<b>EBIT</b>	<b>Interest expense</b>	<b>Funds from operations</b>	<b>Cash flow from operations</b>
Adjusted	11,976.2	17,286.0	6,435.5	4,396.0	388.0	5,023.2	5,511.2

DKK--Danish krone.

## Related Criteria

- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- Criteria - Corporates - General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Criteria - Corporates - General: Corporate Methodology: Ratios And Adjustments, Nov. 19, 2013
- Criteria - Corporates - General: Corporate Methodology, Nov. 19, 2013
- Criteria - Corporates - Industrials: Key Credit Factors For The Capital Goods Industry, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- General Criteria: Group Rating Methodology, Nov. 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers, Nov. 13, 2012
- Criteria - Corporates - General: 2008 Corporate Criteria: Rating Each Issue, April 15, 2008

## Business And Financial Risk Matrix

Business Risk Profile	Financial Risk Profile					
	Minimal	Modest	Intermediate	Significant	Aggressive	Highly leveraged
Excellent	aaa/aa+	aa	a+/a	a-	bbb	bbb-/bb+
Strong	aa/aa-	a+/a	a-/bbb+	bbb	bb+	bb
<b>Satisfactory</b>	a/a-	bbb+	<b>bbb/bbb-</b>	bbb-/bb+	bb	b+
Fair	bbb/bbb-	bbb-	bb+	bb	bb-	b
Weak	bb+	bb+	bb	bb-	b+	b/b-
Vulnerable	bb-	bb-	bb-/b+	b+	b	b-

## Ratings Detail (As Of July 19, 2017)

### Danfoss A/S

Corporate Credit Rating

BBB/Stable/A-2

Senior Unsecured

BBB

### Corporate Credit Ratings History

10-Nov-2014

BBB/Stable/A-2

\*Unless otherwise noted, all ratings in this report are global scale ratings. S&P Global Ratings' credit ratings on the global scale are comparable across countries. S&P Global Ratings' credit ratings on a national scale are relative to obligors or obligations within that specific country. Issue and debt ratings could include debt guaranteed by another entity, and rated debt that an entity guarantees.

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