S&P Global
Ratings

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Siemens AG

Primary Credit Analyst:
Tuomas E Ekholm, CFA, Frankfurt (49) 69-33-999-123; tuomas.ekholm@spglobal.com

Secondary Contact:
Tobias Buechler, CFA, Frankfurt +49 (0)69-33 999-136; tobias.buechler@spglobal.com

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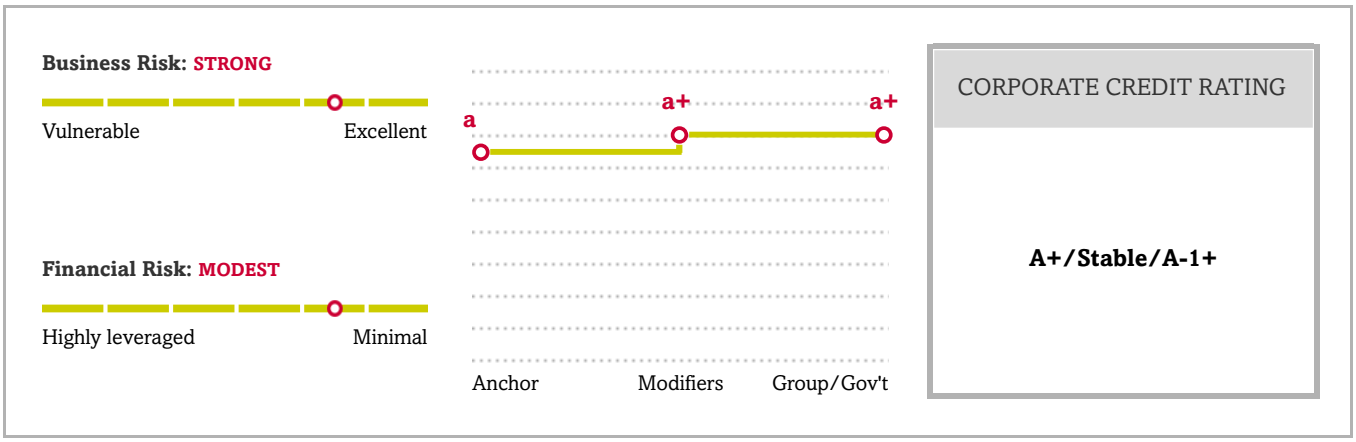
Siemens AG



Rationale

Business Risk: Strong	Financial Risk : Modest
• Leading market positions in all business divisions, and a highly diverse global industrial portfolio. • Strong technological capabilities, with high entry barriers in all markets, and an ability to reorient the portfolio toward growth segments. • A faster margin improvement than expected owing to group-wide cost-saving initiatives. • Modest but stable growth as a result of reviving commodity prices, infrastructure spending, and acquisitions of industrial software businesses. • Political risk in different regions across the world, with overall low economic growth continuing to constrain investment. • Ongoing pressure on margins across all segments due to low economic growth and global industrial overcapacities.	• Robust credit metrics despite significant acquisition-related cash spending in 2017. • Conservative financial policy, including a cap on industrial net debt to EBITDA of 1x. • Abundant liquidity, with sound discretionary cash flow generation through the cycle providing a high degree of financial flexibility. • Ongoing pressure on credit ratios from high shareholder distributions through dividends and share buybacks, as well as from smaller acquisitions.

Outlook : Stable

The stable outlook on Germany-based industrial conglomerate Siemens AG reflects S&P Global Ratings' base-case expectation that the group's operating performance will remain relatively steady, despite the economic and political risk in its operating environment. In our view, this should enable the group to maintain an S&P Global Ratings-adjusted ratio of funds from operations (FFO) to debt at the higher end of the 45%-60% range in the next several years, which we see as being in line with the current ratings, all else being equal.

We expect that Siemens will have adequate financial means to absorb the impact of likely slow global economic growth, particularly in Asia, and continuously low investment in commodities-driven end markets, while continuing to match shareholder distributions and acquisitions to cash generation.

Downside scenario

We view headroom for the key credit metrics at the current rating level as largely exhausted. We would consider taking a negative rating action if Siemens pursued a more aggressive financial policy than we anticipate. This would be the case if we observed additional sizable cash- and debt-financed acquisitions, with no offsetting asset disposals, resulting in credit ratios no longer in line with the current rating, in particular FFO to debt at the lower end of the 45%-60% range.

A negative rating action could also be prompted by a higher shareholder payout ratio than the 40%-60% of net income we assume in our base case and the current €3 billion share buyback program we expect Siemens to complete over the next two years. Moreover, we could also lower the rating if Siemens' operating performance, margins, or portfolio diversification were to weaken significantly.

Upside scenario

We consider an upgrade as unlikely because announced acquisitions have weakened Siemens' forward-looking key credit ratios. In particular, we do not expect FFO to debt to permanently exceed 60% over the medium term. Additionally, we expect the volatile economic environment to hamper the group's growth and margin potential.

Upside rating potential could develop if we thought that Siemens could consistently achieve debt-protection measures commensurate with a minimal financial risk profile, including FFO to debt well above 60%. In the current environment, this would likely include a more conservative financial policy involving refraining from cash- or debt-funded acquisitions and large shareholder remuneration plans in order to boost the key credit metrics.

Our Base-Case Scenario

Siemens posted a solid operational and financial performance in 2016, which was a difficult year for the capital goods sector overall. The group was able to grow its revenues by 5.3% to €79.6 billion and its EBITDA by 18.9% to €10.2 billion, with reported EBITDA margins widening from 11.4% to 12.8%. The effect of higher profitability on Siemens' credit ratios largely offset a €3.9 billion increase in pension liabilities caused by lower discount rates for pensions in Germany. This development looks to have reversed as in the first quarter of 2017 (ending Dec. 31, 2016), as Siemens'

reported pension deficit dropped by €2.6 billion to €11.1 billion.

Siemens' recent performance underlines the stability of its business. We expect Siemens to continue to show solid operational and financial performance in 2017, backed by a strong order book, particularly in 2017, when the group will execute some large orders, as well as a continuous focus on containing its cost base and increasing its margins. We do not expect additional downside pressure on Siemens' credit metrics from the increase in pension liabilities due to increasing benchmark interest rates.

In our view, Siemens' recent transactions to merge its Wind Power segment with Gamesa S.A., the acquisition of industrial software supplier CD-adapco, and the recently announced takeover of semiconductor and electronics design software company Mentor Graphics for $4.5 billion, will strengthen Siemens' business profile by complementing its products and solutions and generating synergies. In particular, we view the acquisitions of CD-adapco and Mentor Graphics as vital for the development of Siemens' digitalized products and solutions portfolio through the strengthening of its systems design and simulation capacity in fluid mechanics and electronics.

We do not expect the pending transactions with Mentor Graphics and Gamesa to weaken Siemens' credit-protection measures beyond our thresholds for the ratings. Under our base-case scenario, we project an improving trend in the group's key ratios after the closing of the Mentor Graphics acquisition. We forecast that Siemens will maintain adjusted FFO to debt at the high end of the 45%-60% range over the next three years. We note, however, that the aforementioned transactions have largely used up Siemens' key ratio headroom for the rating level.

Assumptions

- Some optimism in the commodity markets, but we do not expect this to spur major new investments in short term. We expect that investment and spending in China will start to pick up again after a difficult 2016, but we do not expect growth to return to historical levels in the medium term.
- Overall sluggish GDP growth of 1.4% in 2017 and 1.3% in 2018 in the eurozone as the recovery continues, and of about 2.3% in 2017 and 2.4% in 2018 in the U.S. In Siemens' other key operating region, Asia-Pacific, we forecast GDP growth of 5.1% in 2017 and 5.3% in 2018.
- High single-digit growth in revenues, thanks to a strong order book, Siemens' good order execution track record, along with the closing of planned acquisitions in 2017.
- Maintenance of research and development expenses in line with historical levels of 5%-6% of revenues.
- A slight improvement in EBITDA margins following Siemens' cost-saving initiatives.
- A continuation of the positive developments of 2016 in 2017 and 2018, thanks to the strong order book, margin improvements, and cash conversion.

Key Metrics

	2016A	2017E	2018E
Adjusted EBITDA margin* (%)	13.6	13.7-14.2	13.7-14.2
FFO/debt (%)*	61	50-55	50-60
Debt/EBITDA (x)*	1.2	1-1.5	1-1.5

*Fully S&P Global Ratings-adjusted. A--Actual. E--Estimated.

Company Description

Headquartered in Munich, Germany, Siemens is a leading global technology and engineering group, with a diverse portfolio ranging from power plant construction and wind turbines to rail vehicles and medical technology. The group is a leading global provider of digitalized solutions, including diagnostics, simulation services, and industrial software across all product segments. The group is present in more than 200 countries worldwide and had approximately 351,000 employees on Sept. 30, 2016.

Siemens' businesses are bundled into the following divisions: Power and Gas, Power Generation Services, Energy Management, Building Technologies, Mobility, Digital Factory, Process Industries, and Drives. Health Care (Siemens Healthineers) is a separately managed business, Wind Power has been carved out due to an impending merger, and financial services are offered through Siemens Financial Services.

Chart 1

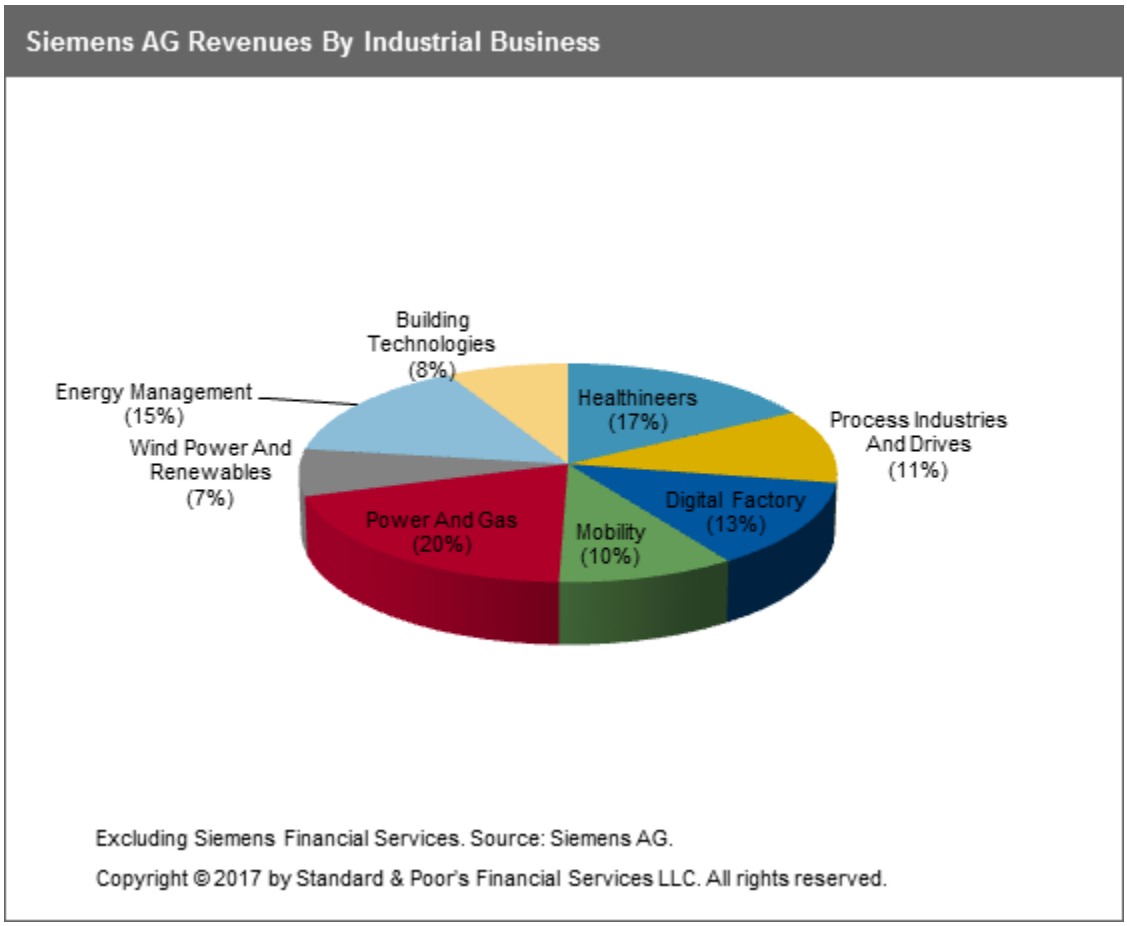

Siemens AG Revenues By Industrial Business
Building Technologies (8%)
Energy Management (15%)
Wind Power And Renewables (7%)
Healthineers (17%)
Process Industries And Drives (11%)
Digital Factory (13%)
Mobility (10%)
Power And Gas (20%)
Excluding Siemens Financial Services. Source: Siemens AG.
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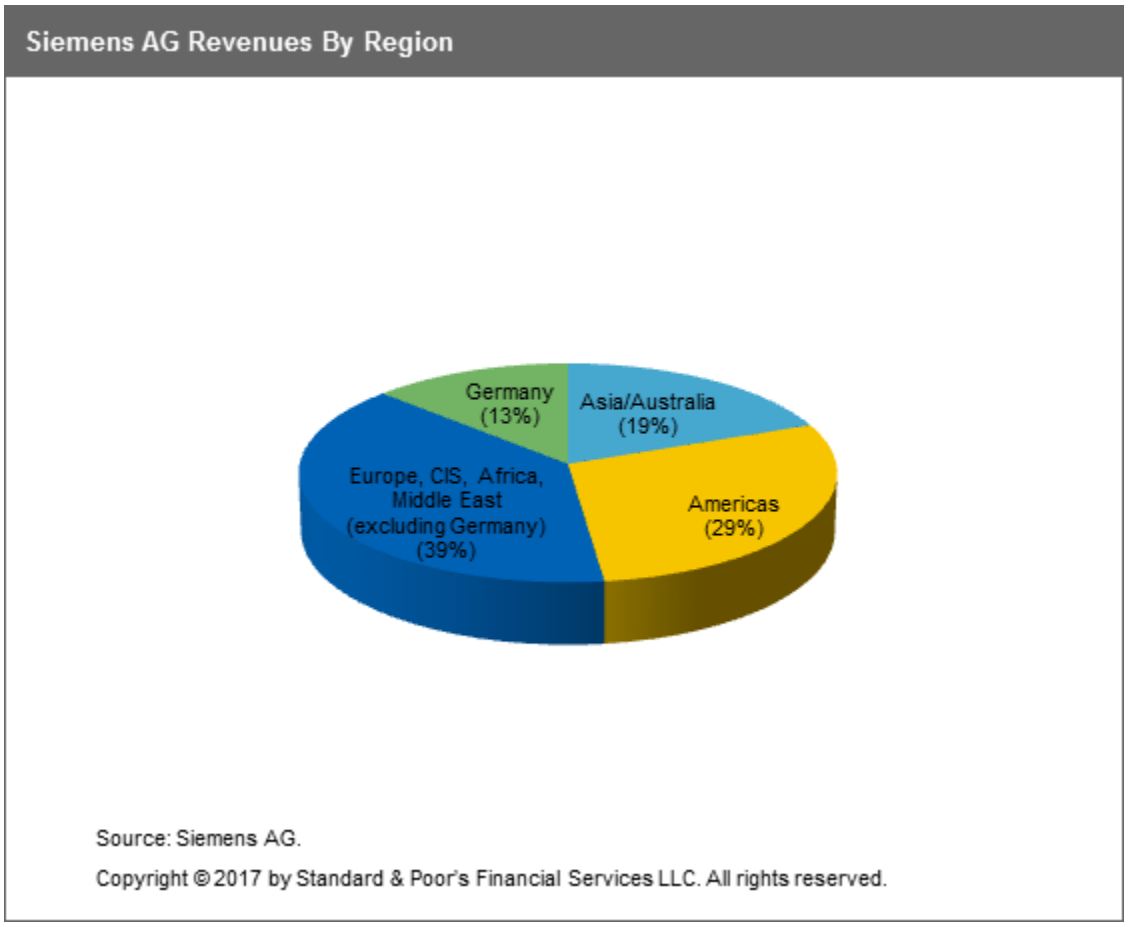
Chart 2



Business Risk: Strong

Siemens is exposed to a wide variety of industries and their related risks, primarily within the traditional capital goods area. We consider that the group's less cyclical divisions, such as Digital Factory and Building Technologies, have lower risk, and view Power and Gas, Process Industries, and Drives as more volatile. In our view, the Energy Management, Wind Power, and Mobility divisions have long operating cycles and higher industry risk. The group has decided to operate its lowest risk Health Care division as a separate listed entity, but with a majority stake post listing.

Our view of Siemens' business risk profile is supported by the group's strong industry, geographic, and customer diversification; leading market positions as a systems provider rather than as a component supplier; and good long-term demand characteristics in most of its business lines. Siemens typically holds a top-three global position and is often the leading player in its markets.

In the countries where it operates, Siemens' performance is linked to GDP growth and the investment cycle, but we see a positive long-term demand pattern for Siemens' products and solutions. Generally, Siemens' process know-how and technological capabilities provide competitive advantages and should underpin performance over the longer term.

In our view, these strengths are tempered by Siemens' high exposure to late- and long-cyclical markets and moderate profitability relative to some peers'.

Siemens managed to execute its €1 billion cost-saving program ahead of schedule, while a productivity improvement of 3%-5% of aggregate functional costs every year is underway. This signals the group's commitment to bring its operating margins closer to those of its more profitable peers.

As part of its portfolio-adjustment process, Siemens is restructuring or exiting low-profit operations. We expect that the group will continue to focus on higher-margin businesses and digitalization, as evident from its announcement to acquire Mentor Graphics in November 2016. We view the planned acquisition as a positive step for the development of Siemens' core business, as we understand that Mentor Graphics will complement Siemens' existing software portfolio, enabling the group to offer a full set of industrial design software.

Our Base-Case Operating Scenario

- Muted S&P Global Ratings outlook for global capital goods sector companies in 2017 because of continued weakness in commodity-related demand and mixed conditions in other general industrial subsectors.
- Slow GDP growth in the developed economies of North America and Europe over the next year. Weak economic conditions in Latin America and the slowdown of the Chinese economy--despite government investment and plans to shift the country toward a consumption-oriented economy--have further reduced growth prospects for the global capital goods sector.
- Some positive developments in commodity sectors such as mining and oil, but commodity prices remain low and are unlikely to spur a high level of new investment.
- Stable performance in the automotive market, positively affecting investment in that sector.
- Growth potential in U.S. infrastructure in the coming years, owing to the government's potential stimulus measures.
- Uncertain investment levels in the global general industrial markets in light of expected low economic growth and growing political risk. In addition, the potential for large new orders in power and gas remains a concern.
- Ongoing cost-optimization and focus on being a complete systems provider. In light of weak conditions in their end markets, it will be critical for global capital goods companies dealing with stagnating top-lines to execute ongoing cost-improvement programs to mitigate low growth, pricing pressure, and deterioration of their margins.
- Single-digit revenue growth in 2017, through the execution of existing large contracts and recent transactions in the renewables and software spaces.
- Moderate margin expansion, thanks to continued restructuring and cost-efficiency programs.

Peer comparison

Table 1

Siemens AG Peer Comparison

	Siemens AG	ABB Ltd.	Schneider Electric S.E.	Rolls-Royce PLC	Atlas Copco AB
(Mil. €)	--Fiscal year ended Sept. 30, 2016--	--Fiscal year ended Dec. 31, 2015--	--Fiscal year ended Dec. 31, 2015--		
Revenues	78,820.0	32,667.1	26,640.0	18,626.2	11,121.0

Table 1

Siemens AG Peer Comparison (cont.)

	Siemens AG	ABB Ltd.	Schneider Electric S.E.	Rolls-Royce PLC	Atlas Copco AB
(Mil. €)	**--Fiscal year ended Sept. 30, 2016--**	**--Fiscal year ended Dec. 31, 2015--**	**--Fiscal year ended Dec. 31, 2015--**		
EBITDA	10,746.5	4,297.1	3,512.5	2,848.3	2,611.4
Funds from operations (FFO)	8,136.7	3,062.2	2,403.7	2,514.7	1,721.6
Net income from continuing operations	5,262.0	1,776.9	1,407.0	112.6	1,279.8
Cash flow from operations	6,450.6	3,732.5	2,596.7	1,568.8	1,942.4
Capital expenditures	1,793.0	806.5	533.0	1,145.4	218.2
Free operating cash flow	4,657.6	2,925.9	2,063.7	423.4	1,724.2
Discretionary cash flow	1,594.6	1,550.4	844.7	(148)	923.2
Cash and short-term investments	11,897.0	5,706.4	2,999.0	4,312.9	967.8
Debt	13,341.8	5,024.9	6,526.6	1,749.1	2,221.9
Equity	32,193.0	13,799.3	21,449.7	6,807.2	5,020.4
Adjusted ratios					
EBITDA margin (%)	13.6	13.2	13.2	15.3	23.5
Return on capital (%)	16.0	15.2	7.6	18.5	29.1
EBITDA interest coverage (x)	9.4	10.8	7.9	16.6	21.5
FFO cash interest coverage (x)	11.5	17.0	8.5	33.0	8.3
Debt/EBITDA (x)	1.2	1.2	1.9	0.6	0.9
FFO/debt (%)	61.0	60.9	36.8	143.8	77.5
Cash flow from operations/debt (%)	48.3	74.3	39.8	89.7	87.4
Free operating cash flow/debt (%)	34.9	58.2	31.6	24.2	77.6
Discretionary cash flow/debt (%)	12.0	30.9	12.9	(8.5)	41.5

Financial Risk: Modest

We base our assessment of Siemens' financial risk profile as modest on the group's strong balance sheet, exceptional liquidity, sound discretionary cash flow generation through the cycle, and robust financial flexibility.

At the end of fiscal 2016, Siemens' adjusted debt was about €13.3 billion, higher than €3.7 billion one year earlier. This increase was largely due to an increased pension deficit following lower interest rates. As of the fiscal year ended Sept. 30, 2016, adjusted FFO to debt was about 60.9%, and adjusted debt to EBITDA was 1.2x. In our adjusted debt calculation, we exclude €22.4 billion of debt at the group's captive finance operations and deduct €8.9 billion of surplus cash. We view the captive finance operations as neutral to Siemens' credit profile.

We anticipate that Siemens will maintain credit ratios that compare favorably with our benchmarks in fiscal 2016 and fiscal 2017, including adjusted FFO to debt at the upper end of the 45%-60% range or higher; debt to EBITDA below

1.5x; and significantly positive free operating cash flow.

We continue to view Siemens' financial policy as conservative, reflecting the group's commitment to a strategy focusing on low leverage (including its publicly communicated cap on debt to EBITDA of 1x), long-term funding, access to undrawn committed bank facilities, and ample liquid funds.

The group has limited headroom within its communicated financial policy target. We therefore do not anticipate that Siemens will undertake any large debt- or cash-financed acquisitions in the near term.

Our Base-Case Cash Flow And Capital Structure Scenario

- Capital expenditures (capex) of €2.0 billion-€2.5 billion annually.
- A dividend payout ratio of 40%-60% of net income according to Siemens' financial policy.
- High mergers and acquisitions-related cash spending of more than €5 billion in 2017. We expect the group to adjust future acquisition-related spending to its annual cash generation.
- Continuation of the share buyback program until 2018.
- No changes in financial policy.

Financial summary

Table 2

Siemens AG Financial Summary

	--Fiscal year ended Sept. 30--				
(Mil. €)					
Revenues	78,820.0	74,781.0	71,174.0	72,484.0	76,536.0
EBITDA	10,746.5	9,100.0	9,628.0	8,777.5	10,020.0
Funds from operations (FFO)	8,136.7	6,494.7	7,908.4	6,983.3	8,163.4
Net income from continuing operations	5,262.0	5,251.0	5,266.0	4,053.0	4,511.0
Cash flow from operations	6,450.6	5,669.4	6,353.9	6,101.0	6,271.4
Capital expenditures	1,793.0	1,543.0	1,488.0	1,474.0	2,486.0
Free operating cash flow	4,657.6	4,126.4	4,865.9	4,627.0	3,785.4
Discretionary cash flow	1,594.6	1,198.4	2,152.9	1,892.0	946.4
Cash and short-term investments	11,897.0	11,132.0	8,938.0	9,791.0	11,415.0
Debt	13,341.8	9,601.0	5,375.7	6,567.1	7,116.8
Equity	32,193.0	33,633.5	29,543.4	27,225.5	30,507.6
Adjusted ratios					
EBITDA margin (%)	13.6	12.2	13.5	12.1	13.1
Return on capital (%)	16.0	17.3	19.6	16.0	17.2
EBITDA interest coverage (x)	9.4	9.8	108.6	38.6	27.5
FFO cash interest coverage (x)	11.5	13.7	14.2	17.0	19.0
Debt/EBITDA (x)	1.2	1.1	0.6	0.7	0.7
FFO/debt (%)	61.0	67.6	147.1	106.3	114.7
Cash flow from operations/debt (%)	48.3	59.1	118.2	92.9	88.1
Free operating cash flow/debt (%)	34.9	43.0	90.5	70.5	53.2

Table 2

Siemens AG Financial Summary (cont.)					
	--Fiscal year ended Sept. 30--				
(Mil. €)					
Discretionary cash flow/debt (%)	12.0	12.5	40.0	28.8	13.3

Liquidity: Exceptional

The short-term rating is 'A-1+' and we regard Siemens' liquidity as exceptional.

Principal Liquidity Sources	Principal Liquidity Uses
• Reported cash and cash equivalents of about €8.9 billion on Sept. 30, 2016, after a 25% haircut. • A total of €7.1 billion of committed credit facilities (RCFs), including an RCF maturing in 2020, all of which are currently undrawn. • FFO in the range of €8.0 billion-€8.5 billion per year.	• Long- and short-term debt maturities of about €4.6 billion in 2017 and about €3.7 billion in 2018. • Capex in the range of €2.0 billion-€2.5 billion annually. • Our assumption of discretionary dividend payments within the group's targeted payout range of 40%-60% of net income. • Discretionary share repurchases of about €1 billion in each of 2017 and 2018. • Acquisition-related cash spending of approximately €5.2 billion in the first half of 2017, and no large acquisitions without commensurate disposals thereafter. We perceive the impact of acquisition spending on liquidity ratios to be temporary.

Long-term bond maturities:

- 2017: Approx. €3.4 billion
- 2018: Approx. €3.7 billion
- 2019: Approx. €2.8 billion
- 2020 and beyond: Approx. €15.6 billion

Other Credit Considerations

Our analysis includes a one-notch uplift to the anchor, based on Siemens' moderate diversification, reflecting the broad reach of the group's moderately correlated products and end markets. In particular, we view the contribution of the health care segment as positive for the group's credit profile. We believe that this segment will continue to benefit the group in terms of diversification, despite the recently announced partial listing of the entity.

Ratings Score Snapshot

Corporate Credit Rating

A+/Stable/A-1+

Business risk: Strong

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

Financial risk: Modest

- **Cash flow/Leverage:** Modest

Anchor: a

Modifiers

- **Diversification/Portfolio effect:** Moderate (+1 notch)
- **Capital structure:** Neutral (no impact)
- **Financial policy:** Neutral (no impact)
- **Liquidity:** Exceptional (no impact)
- **Management and governance:** Satisfactory (no impact)
- **Comparable rating analysis:** Neutral (no impact)

Reconciliation

Table 3

Reconciliation Of Siemens AG Reported Amounts With S&P Global Ratings' Adjusted Amounts

	--Fiscal year ended Sept. 30, 2016--									
Siemens AG reported amounts										
(Mil. €)	**Debt**	**Shareholders' equity**	**Revenues**	**EBITDA**	**Operating income**	**Interest expense**	**EBITDA**	**Cash flow from operations**	**Dividends paid**	**Capital expenditures**
Reported	30,967.0	34,211.0	79,644.0	10,082.0	7,318.0	989.0	10,082.0	7,668.0	3,063.0	2,135.0
S&P Global Ratings' adjustments										
Interest expense (reported)	--	--	--	--	--	--	(989.0)	--	--	--
Interest income (reported)	--	--	--	--	--	--	1,314.0	--	--	--
Current tax expense (reported)	--	--	--	--	--	--	(1,773.0)	--	--	--
Operating leases	2,725.3	--	--	827.5	185.5	185.5	642.0	642.0	--	--

Table 3

Reconciliation Of Siemens AG Reported Amounts With S&P Global Ratings' Adjusted Amounts (cont.)										
Postretirement benefit obligations/deferred compensation	9,223.2	--	--	(4.0)	(4.0)	276.0	(273.5)	(14.5)	--	--
Surplus cash	(8,922.8)	--	--	--	--	--	--	--	--	--
Capitalized development costs	--	--	--	(324.0)	(135.0)	--	(324.0)	(324.0)	--	(324.0)
Share-based compensation expense	--	--	--	332.0	--	--	332.0	--	--	--
Dividends received from equity investments	--	--	--	302.0	--	--	302.0	--	--	--
Captive finance operations	(22,418.0)	(2,623.0)	(824.0)	(292.0)	(1,434.0)	(331.4)	(976.8)	(698.0)	--	(18.0)
Asset retirement obligations	1,611.0	--	--	--	--	22.0	(22.0)	(14.0)	--	--
Non-operating income (expense)	--	--	--	--	1,448.0	--	--	--	--	--
Reclassification of interest and dividend cash flows	--	--	--	--	--	--	--	(809.0)	--	--
Non-controlling interest/minority interest	--	605.0	--	--	--	--	--	--	--	--
Debt--guarantees	799.0	--	--	--	--	--	--	--	--	--
Debt--other	(643.0)	--	--	--	--	--	--	--	--	--
EBITDA--gain/(loss) on disposals of PP&E	--	--	--	(177.0)	(177.0)	--	(177.0)	--	--	--
Total adjustments	(17,625.2)	(2,018.0)	(824.0)	664.5	(116.5)	152.1	(1,945.3)	(1,217.4)	3,063.0	(342.0)

S&P Global Ratings' adjusted amounts

	Debt	Equity	Revenues	EBITDA	EBIT	Interest expense	Funds from operations	Cash flow from operations	Dividends paid	Capital expenditures
Adjusted	13,341.8	32,193.0	78,820.0	10,746.5	7,201.5	1,141.1	8,136.7	6,450.6	3,063.0	1,793.0

Related Criteria And Research

Related Criteria

- Methodology: The Impact Of Captive Finance Operations On Nonfinancial Corporate Issuers, Dec. 14, 2015
- Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Corporate Methodology, Nov. 19, 2013
- Corporate Methodology: Ratios And Adjustments, Nov. 19, 2013
- Key Credit Factors For The Health Care Equipment Industry, Nov. 19, 2013
- Key Credit Factors For The Capital Goods Industry, Nov. 19, 2013
- Group Rating Methodology, Nov. 19, 2013
- Methodology: Industry Risk, Nov. 19, 2013

- Methodology For Linking Short-Term And Long-Term Ratings For Corporate, Insurance, And Sovereign Issuers, May 7, 2013
- Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers, Nov. 13, 2012
- 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
Satisfactory	a/a-	bbb+	bbb/bbb-	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 February 6, 2017)

Siemens AG		
Corporate Credit Rating		A+/Stable/A-1+
Corporate Credit Ratings History		
14-Nov-2012	*Foreign Currency*	A+/Stable/A-1+
18-Apr-2011		A+/Positive/A-1+
05-Jun-2009		A+/Stable/A-1
14-Nov-2012	*Local Currency*	A+/Stable/A-1+
18-Apr-2011		A+/Positive/A-1+
05-Jun-2009		A+/Stable/A-1
Related Entities		
RISICOM Rueckversicherung AG		
Financial Strength Rating		
Local Currency		A+/Stable/--
Issuer Credit Rating		
Local Currency		A+/Stable/--
Siemens Financial Services GmbH		
Issuer Credit Rating		A+/Stable/A-1+

*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.

Additional Contact:
Industrial Ratings Europe; Corporate_Admin_London@spglobal.com