

Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
76.75 USD	70.00 USD	49.00 USD	94.50 USD	Medium	Narrow	Negative	Standard	Application Software

Through acquisitions and product development, SAP is trying to protect its narrow economic moat.

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Investment Thesis 05 Oct 2015

SAP's attempts to acquire its way into the cloud don't inspire confidence, but switching costs in its vertically focused applications and ERP software provide the company with some room for mistakes in its march toward a cloud computing world.

The primary analyst covering this company does not own its stock.

Research as of 09 Feb 2016 Estimates as of 02 Feb 2016 Pricing data through 18 Feb 2016 Rating updated as of 18 Feb 2016

Currency amounts expressed with "\$" are in U.S. dollars (USD) unless otherwise denoted.

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SAP is the largest enterprise resource planning software company in the world and is among the leaders in other categories of business applications. Cloud software contributions are rising rapidly (11% of 2015 sales), but on-premises deployments remain the bulk driver of the business today. Maintenance and support revenue represent about half of total revenue and contribute significantly to high profit margins that should persist over a long

period. As a result, SAP's cash flows generate excess returns that the company can return to shareholders while also reinvesting in the business.

Although pure-play cloud competitors such as Workday and Salesforce are taking share, SAP is not likely to be disrupted, even if it has missteps in moving its products to cloud-based alternatives. Still, SAP has not invested organically as heavily as larger competitors such as Microsoft and Oracle, according to our analysis, as the company has chosen instead to acquire more aggressively. Even as the company holds onto a large part of its customer base, though, we believe operating margins will eventually suffer.

HANA represents an important technology that supports SAP's ERP cloud strategy, although we believe the market may be overly optimistic about its potential to alter the competitive balance in the industry. We believe that HANA is a step forward for customers, although, the expense of managing an in-memory database, or IMDB, may not support every business case. IMDB technology supports more frequent, nearly real-time business intelligence and business analytics capabilities, because the data resides in memory rather than on a disk drive. Historically, business analytics were run in a batch process because of the slower physical limits in accessing the data on a disk.

Vital Statistics

Market Cap (USD I	∕lil)				91,734
52-Week High (US	D)				81.21
52-Week Low (USI))				62.57
52-Week Total Ret	urn %				13.1
YTD Total Return %	6				-3.0
Last Fiscal Year En	d			31 E	Dec 2014
5-Yr Forward Reve	nue CAGR %				6.6
5-Yr Forward EPS (CAGR %				8.8
Price/Fair Value					1.10
Valuation Sumn					
	Fiscal Year:	2013	2014	2015(E)	2016(E)
Price/Earnings		27.1	19.9	17.1	15.5
EV/EBITDA		13.6	11.2	12.1	11.3

Price/Earnings	27.1	19.9	17.1	15.5
EV/EBITDA	13.6	11.2	12.1	11.3
EV/EBIT	16.4	13.6	14.0	12.9
Free Cash Flow Yield %	4.2	4.1	4.2	9.4
Dividend Yield %	1.3	1.7	1.5	1.6

Financial Summary and Forecasts (EUR Mil)

			2011111		
	Fiscal Year:	2013	2014	2015(E)	2016(E)
Revenue		16,815	17,560	19,748	20,654
Revenue YoY %		3.7	4.4	12.5	4.6
EBIT		4,517	4,766	5,547	6,034
EBIT YoY %		13.1	5.5	16.4	8.8
Net Income, Adjusted		4,019	4,129	4,450	4,816
Net Income YoY %		13.9	2.7	7.8	8.2
Diluted EPS		3.22	3.50	4.50	4.95
Diluted EPS YoY %		_	8.7	28.6	10.1
Free Cash Flow		2,156	-3,621	2,537	7,868
Free Cash Flow YoY %		-175.9	-268.0	-170.1	210.1

Historical/forecast data sources are Morningstar Estimates and may reflect adjustments

Profile

SAP is one of the largest enterprise resource planning software companies in the world. Based in Germany, the company has made several acquisitions in an attempt to enter into higher-growth mobile and cloud computing markets. Roughly 90% of revenue comes from on-premises software and services. Nearly half of software and software-related services revenue comes from Europe, the Middle East, and Africa, while more than one third comes from the Americas region.



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Morningstar Analysis

Valuation, Growth and Profitability 03 Feb 2016

Our fair value estimate is \$70 per ADR. We utilize an exchange rate of 1.10 US dollars per euro to arrive at our ADR fair value estimate. Although we expect rapid growth in the company's cloud software revenue (exceeding 20% annualized over the next five years), the total revenue growth rate is 6.9% over the same forecast period. In our base case, we model mid-single-digit annual revenue growth in core on-premises software applications through 2019, excluding emerging products such as HANA and mobile. We also forecast cloud revenues to reach EUR 4 billion by 2019, based primarily on contributions from acquisitions such as Ariba, SuccessFactors, and Concur.

We expect operating margins and returns on capital to decline over our explicit forecast period, primarily driven by a changing revenue mix and increased competition. We forecast operating margins to stagnate, as the cost of delivery of the entire software and hardware stack to support cloud software pressures gross margins. The firm should easily generate returns on capital well in excess of the firm's 8.4% cost of capital.

Scenario Analysis

In our bull-case scenario, we assume that total revenue increases more than 8% annually through 2019, as the channel embraces SAP's HANA, which supports greater sell-through of SAP applications, including its business intelligence products. We also assume operating margins are generally stable at approximately 30%. This scenario results in a fair value estimate of \$88 per ADR.

In our bear-case scenario, we value the company at \$55 per ADR. We assume that HANA revenue levels off as the product never moves beyond the early adopters and competitors react with competitive IMDB products. Additionally, we assume pure cloud vendors are able to take additional market share from SAP. In this model, we assume total company revenue increases by 3% annualized through 2019, while operating margins contract to the low 20s.

Economic Moat

Switching costs surround many of SAP's core ERP and business applications and provide the company with a narrow economic moat. Most customers perceive the cost and risk of replacing software that supports core daily functions to be greater than the cost of paying recurring support and maintenance fees. SAP's customers use the company's software to manage various critical business functions, including operations, finance, human resources, supply chain, and customer relationships. Switching to competing products is risky and is likely to involve a multiyear effort with significant costs for software integration, customization, and user retraining. Historically, SAP's customers have rarely replaced the company's software.

Moat Trend

Increased adoption of public cloud software from competitors such as Workday, NetSuite, and Salesforce.com has rightly influenced SAP's pursuit of its own cloud solutions. However, while SAP evolves to fight a long battle against these cloud competitors, competition from Oracle is also increasing. Oracle has encroached on the company's ERP turf, and it offers a more complete technology stack integrating database, applications, and hardware, a capability that SAP must deliver with partners. Furthermore, many SAP software customers rely on Oracle for their core database functions. We believe it is not likely that many of these customers will disrupt their database. In our view, this combination of forces is narrowing SAP's moat.

Even if SAP is successful in its cloud initiatives, we see several challenges. First of all, some competitors offer more mature pure cloud solutions that better suited for many small and medium-size businesses. Additionally, cloud applications may ultimately be a lower-margin business for SAP relative to its legacy on-premise software business.

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Regardless of the outcome, we expect returns on capital to decline.

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Bulls Say/Bears Say

Bulls Say

- SAP generated more than \$2 billion in cloud revenue in 2015, signalling strong customer demand.
- SAP's large installed base of ERP customers faces substantial switching costs, providing the company valuable time to develop its portfolio of cloud software products.
- HANA is one of the fastest-growing databases in the industry, representing a good upsell opportunity into SAP's existing installed base.

Bears Say

- Oracle has acquired several competitors of SAP and is now a significant competitive force in the ERP software market.
- SAP's decision to directly sell software to smaller customers may lead to channel conflict between the company and traditional resellers.
- Growth outside the large enterprise ERP market could come at the cost of lower margins as SAP faces intense competition in this area.

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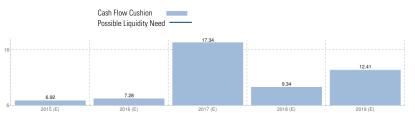


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Five Year Adjusted Cash Flow Forecast (EUR Mil)

Cash and Equivalents (beginning of period) Adjusted Available Cash Flow Total Cash Available before Debt Service	2015(E) 5,026 1,290 6,316	2016(E) 1,198 6,558 7,756	2017(E) 5,954 2,875 8,828	2018(E) 5,640 776 6,417	2019(E) 5,413 4,278 9,691
Principal Payments	-599	-772	-228	-456	-650
Interest Payments	-180	-160	-150	-100	—
Other Cash Obligations and Commitments	-134	-134	-131	-131	-131
Total Cash Obligations and Commitments	-913	-1,066	-509	-687	-781

Cumulative Annual Cash Flow Cushion



Adjusted Cash Flow Summary

		% of
	EUR Millions	Commitments
Beginning Cash Balance	5,026	127.1
Sum of 5-Year Adjusted Free Cash Flow	15,777	398.9
Sum of Cash and 5-Year Cash Generation	20,803	525.9
Revolver Availability	_	_
Asset Adjusted Borrowings (Repayment)	_	_
Sum of Cash, 5-Year Cash Generation, Revolver and Adjustments	20,803	525.9
Sum of 5-Year Cash Commitments	-3,956	_

Financial Health

SAP maintains a robust financial condition. Its ability to produce consistent cash flow is the result of its dominant position in the ERP software market and a very large installed base of product. Over the past four years, the company generated EUR 12.2 billion of free cash flow. Historically, SAP has funded its larger acquisitions by issuing debt, including deals for Concur, Sybase, and Hybris. The Concur acquisition, SAP's largest to date, was funded through an additional EUR 6.5 billion of debt. As a result, leverage has risen to 2 times on a gross debt basis and 1.2 times on a net debt basis. However, these figures do not take into account the incremental EBITDA contribution of Concur for the entirety of 2015. The company has also historically shown discipline in working down its leverage following significant acquisitions. Therefore, we expect leverage to quickly ramp back down over the next year or two, given the company's prodigious cash generation. Since 2008, SAP has issued EUR 21 billion of debt to fund acquisition activity, but has been able to pay down nearly half of that along the way, keeping its financial flexibility strong. At March 31, 2015, the company reported total cash and investments of EUR 4.6 billion, up EUR 600 million from the previous guarter. For additional liquidity, the company has in place a EUR 2.0 billion revolving credit facility, which is due in 2018. The company has the option to extend this maturity by up to two years.

Enterprise Risk

The primary risk to SAP's existing business stems from Oracle's strengthening competitive position as a single-stop vendor of ERP systems, bundling database, applications, and hardware into an integrated solution. Potential customers could use Oracle's comprehensive solutions as a means to consolidate their software vendors. Additionally, about 60% of SAP's customers use Oracle's database software alongside SAP's application software, providing Oracle with direct access to SAP's existing customer base.

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Finally, the profitability of SAP's SMB-focused products could be diminished by the emergence of new subscription-based business models that enable remote delivery of ERP software to customers via the Internet. Such delivery models can result in lower switching costs for customers, and consequently lower economic returns for SAP.

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Management & Ownership

Management Activi	ty			
Name	Position	Shares Held	Report Date*	InsiderActivity
NA	NA	NA	NA	NA

*Represents the date on which the owner's name, position, and common shares held were reported by the holder or issuer.

Fund Ownership				
Top Owners	% of Shares Held	% of Fund Assets	Change (k)	Portfolio Date
Kiwi Wealth KiwiSaver Growth	0.34	0.51	4,057	31 Mar 2015
Kiwi Wealth KiwiSaver Balanced	0.25	0.30	2,940	31 Mar 2015
Harding Loevner International Eq Port	0.12	2.19	46	31 Dec 2015
Scout International Fund	0.03	1.37	-270	31 Dec 2015
ClearBridge Appreciation Fund	0.03	0.57	—	31 Dec 2015
Concentrated Holders				
Trapeze Value Class	_	15.28	_	31 Dec 2015
BNMEURV	0.01	5.34	-1	31 Jan 2016
ProFunds Europe 30 Fund	_	4.53	4	31 Oct 2015
Horizons Enh Inc Intl Equity ETF	_	4.30	0	31 Jan 2016
Scharf Global Opportunity Fund	_	4.27	-1	30 Sep 2015

Institutional Transactions

Top 5 Buyers Goldman, Sachs & Co.	% of Shares Held 0.22	% of Fund Assets 0.09	Shares Bought/ Sold (k) 702	Portfolio Date 30 Sep 2015
Transatlantic Reinsurance Company	0.06	0.36	204	31 Dec 2014
Citigroup Inc	0.03	0.02	191	30 Sep 2015
Templeton Investment Counsel LLC	0.02	0.30	141	30 Sep 2015
Citadel Advisors Llc	0.01	0.01	116	30 Sep 2015
Top 5 Sellers				
Arrowstreet Capital Limited Partnership	0.01	0.05	-1,383	30 Sep 2015
Scout Investment Advisors Inc	0.04	0.99	-338	31 Dec 2015
Morgan Stanley & Co Inc	0.03	0.03	-336	30 Sep 2015
Sustainable Growth Advisers, LP	0.20	3.36	-273	30 Sep 2015
Eaton Vance Management	—		-272	30 Sep 2015

Management 03 Feb 2016

Bill McDermott became the sole CEO in 2014 after serving as co-CEO alongside Jim Hagemann Snabe since February 2010. McDermott joined SAP in 2002, and previously led the global sales operations team. We believe he will be effective as sole CEO of the firm.

Hasso Plattner, a co-founder of SAP, serves as supervisory board chairman. He owns nearly 10% of SAP's outstanding equity and has acted as a key stakeholder and influence on the company's strategic initiatives. Most notably, Plattner has led the evangelism and development of SAP's HANA technology. We consider his interests to be aligned with those of outside shareholders, which is important. With respect to corporate governance, we appreciate that a significant majority of executive compensation is contingent on the company's operating performance.

Overall, we do not have major concerns about the company's capital-allocation decisions. Management is rightly focused on the risks facing its traditional software businesses and has invested both organically and through acquisition in important and complementary technologies such as HANA and cloud computing. Furthermore, the company continues to return capital to shareholders through dividends.

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Analyst Notes

Long-Term Thesis Unchanged Following SAP's Capital Markets Day 05 Feb 2016

SAP held its annual capital markets day Feb. 4, during which it reiterated many of the key themes that drive our long-term investment thesis, including the firm's commitment to shifting applications to the cloud and leveraging Hana as a core component of its cloud platform. We are maintaining our narrow economic moat rating and do not anticipate any material change to our fair value estimate at this time. The shares continue to look modestly overvalued, in our view, and we see more compelling investment opportunities in software names such as Adobe, Guidewire, Red Hat, and ServiceNow.

Management's presentation offered little new information in the way of products, in our view, as the firm continues to heavily pursue its transition to the cloud. Cloud revenue eclipsed the \$2 billion mark in 2015, with management expecting to broach the \$3 billion level in fiscal 2016. Longer term, management expects to maintain a cloud revenue growth rate in the high 20s, yielding cloud revenue around \$8 billion by 2020. While management's intermediate-term goals look incrementally more positive, we continue to see numerous challenges for the firm over the long term, including stout competition from the likes of Oracle, Salesforce.com, and Workday. SAP's enterprise resource planning installed base is probably entrenched despite these threats, but the firm's decision to build out its platform via acquisition rather than organic investment could hamper margins in the long term.

Further, we are not convinced that Hana's in-memory database approach will meet the needs of customers broadly, particularly at cost-constrained small and mediumsize businesses. While this platform certainly has its use cases, particularly at organizations creating voluminous transactional data critical to business intelligence, the expense of this platform could price SAP out of many potential deals.

We Are Placing SAP Under Review 20 Jan 2016 We are placing our fair value estimate for SAP under review as we transition coverage to a different analyst. We will have an updated valuation published by April 8.

SAP's Shift to Cloud Provides No Downside Surprise in 30, but Stock Provides No Margin of Safety 20 Oct 2015 SAP posted solid third-quarter results as revenue grew in cloud-based applications and new licenses for on-premises software. Expense discipline and improving scale in the cloud business allowed gross margins to improve sequentially. We are sticking with our fair value estimate and reiterate our narrow moat rating. We would not recommend the shares while they trade at a premium to our fair value estimate.

Results showed that the company is beginning to enjoy operating leverage in its cloud-based businesses, as cloud gross margins expanded 300 basis points on a sequential basis and nearly 900 basis points compared with the prior year. As cloud revenue represents an increasing piece of the overall revenue mix (12% versus 6.5% last year), companywide gross margins still declined 80 basis points to 69%. The cloud margin improvement is meaningful, however; we expect total gross margins to expand beginning next year, and the profitable on-premises support contracts will be an important ballast over the near term. We still expect legacy on-premises contracts to represent the largest piece of SAP's revenue mix for the foreseeable future.

Total cloud and software revenue grew 19% to EUR 4.1 billion, although the Fieldglass and Concur acquisitions contributed roughly 6 percentage points of growth. As

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Analyst Notes

growth has outpaced the overall software market (which is probably growing in the mid- to high-single-digit range), the quarterly result is encouraging. Still, the march to the cloud promises to be a long one, and SAP will need to demonstrate that its customers will migrate to its cloud platform over the long run. The company has announced 1,300 customers for its cloud-based S/4HANA platform, but with only 25% currently scheduled to go live, we hope to see consistent or accelerating adoption throughout 2016.

SAP's Preliminary 30 Results Show Benefit From Cloud Acquisitions; Shares Fairly Valued 13 Oct 2015

SAP announced preliminary results for its fiscal third quarter that are generally in line with our full-year forecast. We consider the shares fairly valued and will wait until the full earnings release Oct. 20 before revising our financial model. We are sticking with our narrow moat rating, but we would hesitate to recommend the shares unless they traded at a more meaningful discount to our fair value estimate.

We hope to learn more about SAP's success in moving legacy customers onto updated cloud versions of its products, particularly products running on the HANA cloud platform. Additionally, given the continued rapid growth of pure cloud application companies such as Salesforce and Workday, we await management updates about the competitive environment in greenfield opportunities and SAP's installed base. Given the resilience of SAP's support revenue (growing 6% on a constant currency basis), we believe the pure public cloud competitors are not causing significant disruption in SAP's core business.

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Morningstar Analyst Forecasts

Financial Summary and Forecasts Fiscal Year Ends in December						F	
Fiscal Year Ends in December						Forecast	
Growth (% YoY)	3-Year Hist. CAGR	2012	2013	2014	2015	2016	5-Yea Proj. CAGF
Revenue	7.3	14.0	3.7	4.4	12.5	4.6	6.6
EBIT	4.6	-4.2	13.1	5.5	16.4	8.8	8.9
EBITDA	5.7	-0.7	12.6	5.6	11.4	6.6	7.4
Net Income	7.1	4.9	13.9	2.7	7.8	8.2	7.6
Diluted EPS	6.8	_		8.7	28.6	10.1	7.4
Earnings Before Interest, after Tax	-14.3	-27.5	12.7	-23.0	31.0	39.4	17.6
Free Cash Flow	-204.6	-189.7	-175.9	-268.0	-170.1	210.1	
Profitability	3-Year Hist. Avg	2012	2013	2014	2015	2016	5-Yea
,	0						Proj. Avg
Operating Margin %	26.2	24.6	26.9	27.1	28.1	29.2	29.4
EBITDA Margin %	31.8	30.0	32.5	32.9	32.6	33.2	33.5
Net Margin %	23.1	21.8	23.9	23.5	22.5	23.3	23.7
Free Cash Flow Margin %	-8.4	-17.5	12.8	-20.6	12.9	38.1	20.3
ROIC %	21.0	19.3	24.1	19.7	12.8	16.6	17.2
Adjusted ROIC %	75.7	66.4	87.8	73.0	52.0	92.0	92.8
Return on Assets %	11.1	11.0	12.3	9.9	9.7	11.2	11.4
Return on Equity %	20.2	20.5	22.0	18.2	17.7	19.2	17.8
	3-Year						5-Yea
Leverage	Hist. Avg	2012	2013	2014	2015	2016	Proj. Avg
Debt/Capital	0.29	0.27	0.22	0.37	0.25	0.18	0.12
Total Debt/EBITDA	1.30	1.08	0.82	2.00	1.12	0.80	0.53
EBITDA/Interest Expense	28.95	27.76	30.21	28.88	35.76	42.88	_

Valuation Summary and Forecasts							
-	2013	2014	2015(E)	2016(E)			
Price/Fair Value	1.28	1.07	—	—			
Price/Earnings	27.1	19.9	17.1	15.5			
EV/EBITDA	13.6	11.2	12.1	11.3			
EV/EBIT	16.4	13.6	14.0	12.9			
Free Cash Flow Yield %	4.2	4.1	4.2	9.4			
Dividend Yield %	1.3	1.7	1.5	1.6			

Key Valuation Drivers

Cost of Equity %	9.0
Pre-Tax Cost of Debt %	5.8
Weighted Average Cost of Capital %	8.4
Long-Run Tax Rate %	26.0
Stage II EBI Growth Rate %	5.5
Stage II Investment Rate %	22.0
Perpetuity Year	15

Discounted Cash Flow Valuation			
	EUR Mil	Firm Value (%)	Per Share Value
Present Value Stage I	17,422	22.7	14.56
Present Value Stage II	24,395	31.8	20.38
Present Value Stage III	34,814	45.4	29.08
Total Firm Value	76,632	100.0	64.02
Cash and Equivalents	5,026	_	4.20
Debt	-11,542	—	-9.64
Preferred Stock	_	_	_
Other Adjustments	1	_	0.00
Equity Value	70,117	_	58.58
Projected Diluted Shares	1,197		
Fair Value per Share (USD)	_		

Additional estimates and scenarios available for download at http://select.morningstar.com.

The data in the table above represent base-case forecasts in the company's reporting currency as of the beginning of the current year. Our fair value estimate may differ from the equity value per share shown above due to our time value of money adjustment and in cases where probability-weighted scenario analysis is performed.

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Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
76.75 USD	70.00 USD	49.00 USD	94.50 USD	Medium	Narrow	Negative	Standard	Application Software

Morningstar Analyst Forecasts

Income Statement (EUR Mil)					
Fiscal Year Ends in December					ecast
Revenue	2012 16,222	2013 16,815	2014 17,560	2015 19,748	201 20,65
nevenue	10,222	10,015	17,300	13,740	20,05
Cost of Goods Sold	5,075	5,031	5,272	5,610	5,842
Gross Profit	11,147	11,784	12,288	14,138	14,812
Selling, General & Administrative Expenses	4,905	4,997	5,195	5,826	5,99
Research & Development	2,268	2,282	2,331	2,765	2,78
Other Operating Expense (Income)	-21	-12	-4	_	_
Depreciation & Amortization (if reported separately)	_	_	_	_	_
Operating Income (ex charges)	3,995	4,517	4,766	5,547	6,03
Restructuring & Other Cash Charges	181	56	386	600	_
Impairment Charges (if reported separately)	_	_	_	_	_
Other Non-Cash (Income)/Charges	_	_	_	_	_
Operating Income (incl charges)	3,814	4,461	4,380	4,947	6,03
Interest Expense	175	181	200	180	16
Interest Income	107	115	127	111	2
Pre-Tax Income	3,746	4,395	4,307	4,878	5,90
Income Tax Expense	997	1,071	1,080	1,268	1,53
Other After-Tax Cash Gains (Losses)	_	_	_	_	_
Other After-Tax Non-Cash Gains (Losses)	—		_	—	_
(Minority Interest)	_	1	_	_	_
(Preferred Dividends)	—		_	—	_
Net Income	2,749	3,325	3,227	3,610	4,36
Weighted Average Diluted Shares Outstanding	1,192	1,195	1,197	1,199	1,20
Diluted Earnings Per Share	2.31	2.78	2.70	3.01	3.6
Adjusted Net Income	3,530	4,019	4,129	4,450	4,81
Diluted Earnings Per Share (Adjusted)	2.96	3.36	3.45	3.71	4.0
Dividends Per Common Share	0.79	0.79	0.79	0.79	0.7
EBITDA	4,677	5,412	5,390	5,836	6,86
Adjusted EBITDA	4,858	5,468	5,776	6,436	6,86

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Morningstar Analyst Forecasts

Fiscal Year Ends in December					ecast
	2012	2013	2014	2015	2016
Cash and Equivalents	3,262	3,606	5,026	1,198	5,954
Investments	—	_	_	—	_
Accounts Receivable	3,915	3,865	4,330	4,869	5,093
Inventory	—	—	—	—	_
Deferred Tax Assets (Current)	157	142	173	173	173
Other Short Term Assets	332	346	433	278	297
Current Assets	7,666	7,959	9,962	6,518	11,516
Net Property Plant, and Equipment	1,710	1,820	2,102	1,987	1,974
Goodwill	13,274	13,688	20,831	21,831	21,831
Other Intangibles	3,234	2,956	4,608	4,608	4,608
Deferred Tax Assets (Long-Term)	655	466	607	1,119	1,196
Other Long-Term Operating Assets	158	205	264	312	333
Long-Term Non-Operating Assets	173	_	_	_	
Total Assets	26,870	27,094	38,374	36,375	41,458
Accounts Payable	911	850	1,006	1,070	1,115
Short-Term Debt	802	748	3,801	2,801	1,801
Deferred Tax Liabilities (Current)	552	433	333	333	333
Other Short-Term Liabilities	4,423	4,316	4,627	5,203	8,862
Current Liabilities	6,688	6,347	9,767	9,408	12,111
Long-Term Debt	4,445	3,758	7,741	4,375	3,682
Deferred Tax Liabilities (Long-Term)	572	433	759	759	759
Other Long-Term Operating Liabilities	991	508	513	577	603
Long-Term Non-Operating Liabilities	—	_		—	
Total Liabilities	12,696	11,046	18,780	15,119	17,155
Preferred Stock	_	_	_	_	_
Common Stock	1,229	1,229	1,229	1,229	1,229
Additional Paid-in Capital	492	551	614	615	616
Retained Earnings (Deficit)	13,976	16,258	18,311	20,665	23,710
(Treasury Stock)	-1,337	-1,280	-1,224	-1,224	-1,224
Other Equity	-194	-718	570	-37	-37
Shareholder's Equity	14,166	16,040	19,500	21,248	24,294
Minority Interest	14	17	94	8	8
Total Equity	14,180	16,057	19,594	21,256	24,302

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Morningstar Analyst Forecasts

Fiscal Year Ends in December				Fore	ecast
	2012	2013	2014	2015	2016
Net Income	2,826	3,325	3,275	3,610	4,366
Depreciation	863	951	1,010	889	826
Amortization	—	—	—	—	
Stock-Based Compensation	_	_	_	_	_
Impairment of Goodwill	—	—	—	—	
Impairment of Other Intangibles	—	—	—	—	
Deferred Taxes	-38	1,071	1,080	-512	-77
Other Non-Cash Adjustments	10	-1,322	-1,957	—	_
(Increase) Decrease in Accounts Receivable	-297	-68	-239	-539	-224
(Increase) Decrease in Inventory	_	_	_	_	_
Change in Other Short-Term Assets	-72	-74	-259	155	-19
Increase (Decrease) in Accounts Payable	207	-176	648	64	44
Change in Other Short-Term Liabilities	153	125	16	576	3,659
Cash From Operations	3,652	3,832	3,574	4,243	8,576
(Capital Expenditures)	-543	-566	-737	-774	-813
Net (Acquisitions), Asset Sales, and Disposals	-5,924	-1,160	-6,465	-1,000	
Net Sales (Purchases) of Investments	671	-55	-12	—	
Other Investing Cash Flows	_	_	_	16	5
Cash From Investing	-5,796	-1,781	-7,214	-1,758	-807
Common Stock Issuance (or Repurchase)	52	49	51	1	1
Common Stock (Dividends)	-1,310	-1,013	-1,194	-1,256	-1,321
Short-Term Debt Issuance (or Retirement)	—	—	—	-1,000	-1,000
Long-Term Debt Issuance (or Retirement)	1,064	-625	5,362	-3,366	-693
Other Financing Cash Flows	—	—	—	-86	
Cash From Financing	-194	-1,589	4,219	-5,707	-3,013
Exchange Rates, Discontinued Ops, etc. (net)	-152	-191	21	-607	_
Net Change in Cash	-2,490	271	600	-3,828	4,756

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76.75 USD	70.00 USD	49.00 USD	94.50 USD	Medium	Narrow	Negative	Standard	Application Software

Comparable Company Analysis

These companies are chosen by the analyst and the data are shown by nearest calendar year in descending market capitalization order.

Valuation Analysis																
		Price/Ea	rnings		EV/EBITD	Α		Price/Fre	e Cash Flo	w	Price/Bo	ok		Price/Sa	les	
Company/Ticker	Price/Fair Value	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)
Oracle Corp ORCL USA	0.83	14.6	15.7	14.1	9.8	10.3	8.7	—	14.6	13.1	—	3.9	3.1	—	4.9	4.1
Average		14.6	15.7	14.1	9.8	10.3	8.7	—	14.6	13.1	—	3.9	3.1	—	4.9	4.1
SAP SE SAP US	1.10	19.9	17.1	15.5	11.2	12.1	11.3	24.2	23.7	10.6	3.5	3.9	3.4	3.9	4.2	4.0

Returns Analysis		ROIC %			Adjusted	ROIC %		Return o	n Equity %		Return o	n Assets %		Dividend	d Yield %	
Company/Ticker Oracle Corp ORCL USA	Last Historical Year Total Assets (Mil) — USD	2014 37.5	2015(E) 32.8	2016(E) 30.9	2014 218.0	2015(E) 261.5	2016(E) 326.3	2014	2015(E) 20.8	2016(E) 19.7	2014 12.7	2015(E) 9.9	2016(E) 8.7	2014 1.2	2015(E) 1.2	2016(E) 1.3
Average		37.5	32.8	30.9	218.0	261.5	326.3	—	20.8	19.7	12.7	9.9	8.7	1.2	1.2	1.3
SAP SE SAP US	EUR	19.7	<i>12.8</i>	16.6	73.0	52.0	92.0	18.2	17.7	19.2	9.9	9.7	11.2	1.7	1.5	1.6

Growth Analysis

		Revenue	Revenue Growth %			EBIT Growth % EPS Growth %				Free Cas	h Flow Gro	wth %	Dividend/Share Growth %			
Company/Ticker Oracle Corp ORCL USA	Last Historical Year Revenue (Mil) 38,275 USD	2014	2015(E) -0.1	2016(E) -2.4	2014	2015(E) -4.6	2016(E) -1.4	2014 7.3	2015(E) -3.4	2016(E) -6.1	2014 7.0	2015(E) -39.8	2016(E) 33.9	2014 60.0	2015(E)	2016(E) -8.7
Average		—	-0.1	-2.4	—	-4.6	-1.4	7.3	-3.4	-6.1	7.0	-39.8	33.9	60.0	—	-8.7
SAP SE SAP US	17,560 EUR	4.4	12.5	4.6	5.5	16.4	8.8	8.7	28.6	10.1	-268.0	-170.1	210.1	-	0.1	_



Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
76.75 USD	70.00 USD	49.00 USD	94.50 USD	Medium	Narrow	Negative	Standard	Application Software

Comparable Company Analysis

These companies are chosen by the analyst and the data are shown by nearest calendar year in descending market capitalization order.

Profitability Analysis																
	Last Historical Year	Gross Ma	argin %		EBITDA M	/largin %		Operatin	g Margin %	0	Net Marg	gin %		Free Cas	h Flow Ma	rgin %
Company/Ticker Oracle Corp ORCL USA	Net Income (Mil) 13,214 USD	2014	2015(E) 80.3	2016(E) 80.8	2014 46.7	2015(E) 44.9	2016(E) 44.1	2014 39.2	2015(E) 37.4	2016(E) 37.8	2014 34.5	2015(E) 32.7	2016(E) 32.4	2014	2015(E) 33.9	2016(E) 31.6
Average		—	80.3	80.8	46.7	44.9	44.1	39.2	37.4	37.8	34.5	32.7	32.4	—	33.9	31.6
SAP SE SAP US	4,129 EUR	70.0	71.6	71.7	32.9	32.6	33.2	27.1	28.1	29.2	23.5	22.5	23.3	16.2	17.6	37.6

Leverage Analysis		Debt/Equ	itv %		Debt/Tota	al Can %		EBITDA/	nterest Exr	n.	Total Deb	t/EBITDA		Assets/E	auity	
Company/Ticker Oracle Corp ORCL USA	Last Historical Year Total Debt (Mil) 22,667 USD	2014 48.3	2015(E) 82.2	2016(E) 80.0	2014 32.6	2015(E) 45.1	2016(E) 44.4	2014 19.6	2015(E) 15.0	2016(E) 13.7	2014 1.3	2015(E) 2.3	2016(E) 2.4	2014	2015(E) 2.3	2016(E) 2.2
Average		48.3	82.2	80.0	32.6	45.1	44.4	19.6	15.0	13.7	1.3	2.3	2.4		2.3	2.2
SAP SE SAP US	11,542 EUR	59.2	33.8	22.6	37.2	25.3	18.4	28.9	35.8	42.9	2.0	1.1	0.8	2.0	1.7	1.7

Liquidity Analysis

	Market Cap	Cash per	Share		Current R	atio		Quick Ra	tio		Cash/Sho	ort-Term De	bt	Payout R	latio %	
Company/Ticker	(Mil)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)
Oracle Corp ORCL USA	153,891 USD	3.86	4.82	4.57	3.35	4.13	4.10	3.33	4.11	4.08	—	—	—	20.2	21.8	21.0
Average		3.86	4.82	4.57	3.35	4.13	4.10	3.33	4.11	4.08	—		—	20.2	21.8	21.0
SAP SE SAP US	91,734 USD	4.20	1.00	4.96	1.02	0.69	0.95	1.02	0.69	0.95	1.32	0.43	3.31	37.0	34.8	30.3

Research Methodology for Valuing Companies

Components of Our Methodology

- ► Economic Moat[™] Rating
- Moat Trend[™] Rating
- Moat Valuation
- Three-Stage Discounted Cash Flow
- Weighted Average Cost of Capital
- Fair Value Estimate
 Scenario Analysis
- Scenario Analysis
 Uncertainty Ratings
- Margin of Safety
- Consider Buying/Selling
- Stewardship Rating

We believe that a company's intrinsic worth results from the future cash flows it can generate. The Morningstar Rating for stocks identifies stocks trading at a discount or premium to their intrinsic worth-or fair value estimate, in Morningstar terminology. Five-star stocks sell for the biggest risk-adjusted discount to their fair values, whereas 1-star stocks trade at premiums to their intrinsic worth. Four key components drive the Morningstar rating: our assessment of the firm's economic moat, our estimate of the stock's fair value, our uncertainty around that fair value estimate and the current market price. This process ultimately culminates in our single-point star rating. Underlying this rating is a fundamentally focused methodology and a robust, standardized set of procedures and core valuation tools used by Morningstar's equity analysts.

The concept of the Morningstar Economic Moat[™] Rating plays a vital role not only in our qualitative assessment of a firm's investment potential, but also in our actual calculation of our fair value estimates. We assign three moat ratings—none, narrow, or wide—as well as the Morningstar Moat Trend[™] Rating—positive, stable, or negative—to each company we cover. Companies with a narrow moat are those we believe are more likely than not to achieve normalized excess returns on invested capital over at least the next 10 years. Wide-moat companies are those in which we have very high confidence that excess returns will remain for 10 years, with excess returns more likely than not to remain for at least 20 years. The longer a firm generates economic profits, the higher its intrinsic value. The assumptions that we make about a firm's economic moat play a vital role in determining the length of "economic outperformance" that we assume in the terminal sections of our valuation model. To assess the sustainability of excess profits, analysts perform ongoing assessments of what we call the moat trend. A firm's moat trend is positive in cases where we think its sources of competitive advantage are growing stronger; stable where we don't anticipate changes to competitive advantages over the next several years; or negative when we see signs of deterioration.

At the heart of our valuation system is a detailed projection of a company's future cash flows. The first stage of our three-stage discounted cash flow model can last from 5 to 10 years and contains numerous detailed assumptions about various financial and operating items. The second stage of our modelwhere a firm's return on new invested capital (RONIC) and earnings growth rate implicitly fade until the perpetuity year-can last anywhere from one year (for companies with no economic moat) to 10-15 years (for wide-moat companies). In our third stage, we assume the firm's RONIC equals its weighted average cost of capital, and we calculate a continuing value using a standard perpetuity formula. In deciding on the rate at which to discount future cash flows, we use a building block approach,

Morningstar Research Methodology for Valuing Companies

Economic Moat Financial Health Stewardship Uncertainty Moat Trend

Morningstar Fair Value

Margin of Safety Market Pricing Morningstar Rating[™] For Stocks ★★★★

Source: Morningstar, Inc.



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Detailed Methodology Documents and Materials*

- Comprehensive Equity Research Methodology
- Uncertainty Methodology
- Cost of Equity Methodology
- Morningstar DCF Valuation Model
- Stewardship Rating Methodology

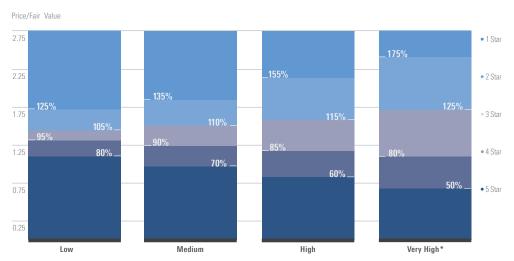
*Please contact a sales representative for more information. which takes into account expectations for market real return, inflation, country risk premia, corporate credit spread, and any additional systematic risk.

We also employ a number of other tools to augment our valuation process, including scenario analysis, where we assess the likelihood and performance of a business under different economic and firm-specific conditions. Our analysts model three scenarios for each company we cover, stresstesting the model and examining the distribution of resulting fair values.

The Morningstar Uncertainty Rating captures the range of likely potential fair values and uses it to assign the margin of safety required before investing, which in turn explicitly drives our stock star rating system. The Uncertainty Rating represents the analysts' ability to bound the estimated value of the shares in a company around the Fair Value Estimate, based on the characteristics of the business underlying the stock, including operating and financial leverage, sales sensitivity to the overall economy, product concentration, pricing power, and other company-specific factors.

Our corporate Stewardship Rating represents our assessment of management's stewardship of shareholder capital, with particular emphasis on capital allocation decisions. Analysts consider companies' investment strategy and valuation, financial leverage, dividend and share buyback policies, execution, compensation, related party transactions, and accounting practices. Corporate governance practices are only considered if they've had a demonstrated impact on shareholder value. Analysts assign one of three ratings: "Exemplary," "Standard," and "Poor." Analysts judge stewardship from an equity holder's perspective. Ratings are determined on an absolute basis. Most companies will receive a Standard rating, and this is the default rating in the absence of evidence that managers have made exceptionally strong or poor capital allocation decisions.



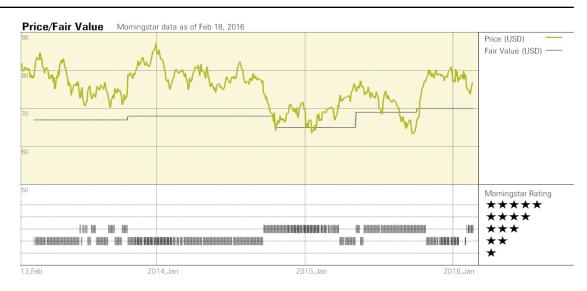


* Occasionally a stock's uncertainty will be too high for us to estimate, in which case we label it Extreme.

Source: Morningstar, Inc.

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76.75 USD	70.00 USD	49.00 USD	94.50 USD	Medium	Narrow	Negative	Standard	Application Software



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