

Rating Buy

North America **United States**

Health Care

Pharmaceuticals / Specialty

Company

Endo International

ENDP.OQ

Raising PT to \$11 post CEO meetings

ENDP US

Exchange **ENDP**

Date 17 July 2018

Forecast Change

Price at 17 Jul 2018 (USD)	10.83
Price target	11.00
52-week range	12.38 - 5.43

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Key changes			
TP	10.00 to 11.00	1	10.0%
EPS (USD)	2.39 to 2.54	1	6.3%
Revenue (USDm)	2,756.4 to 2,801.4	1	1.6%
(USDM)	,		

Tidbits from our meeting with management

We hosted some investor meetings with CEO Paul Campanelli and Head of IR Nina Goworek. Recall that we wrote a note on 6/1 ("What could make ENDP work?") in which we laid out a path to improved stock performance. While the risk/reward at current levels is not as attractive as it was then, we see the potential for continued good performance if management continues to deliver on its plan. We are bumping our PT to \$11 from \$10 based on higher Vasostrict sales assumptions (recent price increase), and we note that there could be upside to management's outlook if additional generic competition to some important ENDP products does not materialize. Below we highlight some tidbits of interest from the meeting.

- On capital allocation, despite the recent Somerset acquisition, management remains focused on debt reduction, and believes the Valuation and risks company can eventually de-lever to a 3-4x debt/EBITDA ratio (no target date provided). We do not see equity financing as likely in the near term.
- Following the re-shaping of the retail generic portfolio (ENDP eliminated 80+ products), management likes its portfolio and is seeing some relative stability in pricing erosion. On the injectables side, the recent acquisition of Somerset will add roughly 10 marketed products, 20 filed ANDAs, and another 10 or so projects in development. We believe that ENDP should be in a better position relative to Somerset to drive penetration into the GPO setting.
- On the brand side, the cellulite opportunity (for "Xiaflex") remains the focus. We note that on clinicaltrials gov, the status changed last week to reflect that the Phase III CCH study is no longer recruiting. This makes it more possible that the results will come in late 2018 vs early 2019. Management continues to prepare infrastructure and strategy to launch this product in the US in 2020, and remains open to options for the ex-US opportunity. The company is working on lowering the cost of goods for the
- The opioid liability, which remains an overhang, is hard to quantify and the timeline is unclear. The key judge seems motivated to move things along as quickly as possible, but the complexity of the situation and the number of parties involved could make quick resolution difficult.

Our PT is based on a DCF analysis (9% WACC, 0% TG), and implies that the stock can trade at ~4x our 2018E EPS. Downside risks include delayed generic approvals, increasing competitive intensity in generics, greater-thanexpected pricing pressure for generics, fines related to the ongoing investigation into the pricing of certain generics, lower-than-expected sales for key brands, earlier-than-expected generic competition to key brands, greater product liability related to mesh products, product liability related to testosterone products, and pressure on the tax structure.



Investment Thesis

Outlook

ENDP's business has been under significant pressure over the last couple of years, based primarily on generic competitive and pricing pressures, mixed in with some other factors. While the stock has continued to underperform, we are encouraged that the generics business has been performing in line with ENDP's expectations, and that management has expressed confidence in the current portfolio and pipeline. With continued stabilization in the pressures on the generics business, new generic approvals and launches, and execution on cost savings initiatives, we like the risk/reward for the stock over the next 12 months. Buy.

Valuation

Our target price is based on a sum-of-the-parts DCF analysis. We model sales over a 10-year period, then determine a terminal value based on a terminal growth rate (we assume 0% terminal growth given the challenges in forecasting long-term cash flows in the pharmaceutical industry). We discount after-tax profits back to the end of 2018 at 9%, which we believe approximates the company's weighted average cost of capital (based on a risk-free rate of 2.1%, equity risk premium of 9.6%, and beta of 1.27).

Risks

Downside risks include: 1) delayed generic approvals, 2) increasing competitive intensity in generics, 3) greater-than-expected pricing pressure for generics, 4) unforeseen quality/manufacturing issues, 5) fines related to the ongoing investigation into the pricing of certain generics, 6) lower-than-expected sales for key brands, 7) earlier-than-expected generic competition to key brands, 8) greater than expected product liability related to mesh products, 9) product liability related to testosterone products, and 10) changes to tax laws, rates, and/or treaties that adversely affect Endo's tax structure.



Figure 1: Endo Quarterly Earnings Model

(\$ in mn)	Mar-17A	Jun-17A	Sep-17A	Dec-17A	2017A	Mar-18A	Jun-18E	Sep-18E	Dec-18E	2018E
Revenue	1,037.6	875.7	786.9	768.6	3,468.9	700.5	695.7	698.9	706.3	2,801.4
COGS	403.4	334.8	273.7	264.0	1,275.8	216.1	223.8	222.1	223.9	885.8
Gross Profit	634.2	541.0	513.2	504.6	2,193.0	484.4	471.9	476.8	482.5	1,915.6
SG&A	156.2	143.9	133.9	159.3	593.2	147.9	140.0	120.0	120.0	527.9
R&D	40.6	38.5	39.6	46.7	165.3	38.0	50.0	53.0	55.0	196.0
EBITDA	461.1	380.5	361.9	317.7	1,521.2	315.8	303.9	325.8	329.5	1,275.0
Operating Income	437.4	358.6	339.8	298.6	1,434.5	298.5	281.9	303.8	307.5	1,191.7
Interest Income	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.2	1.9	6.4
Interest Expense	-110.9	-118.3	-127.5	-128.3	-485.0	-123.7	-140.4	-139.9	-139.4	-543.4
Other	0.0	0.0	5.1	0.0	5.1	0.0	0.0	0.0	0.0	0.0
Interest and Other	-110.9	-118.3	-122.4	-128.3	-479.8	-123.7	-138.0	-137.7	-137.5	-537.0
Pre-tax Income	326.5	240.4	217.4	170.4	954.6	174.8	143.8	166.1	170.0	654.7
Income Tax	51.3	33.2	13.3	-3.5	94.3	24.0	17.3	19.9	20.4	81.6
Tax Rate	15.7%	13.8%	6.1%	-2.1%	9.9%	13.7%	12.0%	12.0%	12.0%	12.5%
Net Income	275.2	207.2	204.1	173.9	860.4	150.8	126.6	146.2	149.6	573.1
Adjusted EPS	\$1.23	\$0.93	\$0.91	\$0.77	\$3.84	\$0.67	\$0.56	\$0.65	\$0.66	\$2.54
Diluted Shares	223.3	223.8	224.2	224.6	224.0	225.0	226.0	226.0	226.0	225.7
GAAP EPS	-\$0.74	-\$3.12	-\$0.45	-\$1.22	-\$5.52	-\$2.23	-\$0.35	-\$0.18	-\$0.12	-\$2.86
YoY % Change										
Total Revenue	8%	-5%	-11%	-38%	-14%	-32%	-21%	-11%	-8%	-19%
COGS	3%	-11%	-16%	-46%	-20%	-46%	-33%	-19%	-15%	-31%
Gross Profit	11%	-1%	-8%	-33%	-10%	-24%	-13%	-7%	-4%	-13%
SG&A	-11%	-22%	-26%	-14%	-18%	-5%	-3%	-10%	-25%	-11%
R&D	3%	-21%	-10%	5%	-6%	-6%	30%	34%	18%	19%
EBITDA	20%	12%	0%	-42%	-7%	-32%	-20%	-10%	4%	-16%
Operating Income	22%	15%	2%	-43%	-6%	-32%	-21%	-11%	3%	-17%
Pre-tax Income	31%	22%	-3%	-58%	-11%	-46%	-40%	-24%	0%	-31%
Net Income	14%	8%	-10%	-56%	-18%	-45%	-39%	-28%	-14%	-33%
Adjusted EPS	14%	7%	-10%	-56%	-19%	-46%	-40%	-29%	-15%	-34%
% of Revenue										
COGS	38.9%	38.2%	34.8%	34.3%	36.8%	30.8%	32.2%	31.8%	31.7%	31.6%
	61.1%	61.8%	65.2%	65.7%	63.2%	69.2%	67.8%	68.2%	68.3%	68.4%
Gross Profit	01.170				47.40/	21 10/	20.1%	17.2%	17.0%	18.8%
	15.1%	16.4%	17.0%	20.7%	17.1%	21.1%	20.170	11.2/0	17.070	
SG&A			17.0% 5.0%	20.7% 6.1%	17.1% 4.8%	5.4%	7.2%	7.6%	7.8%	7.0%
SG&A R&D	15.1%	16.4%								
SG&A R&D EBITDA	15.1% 3.9%	16.4% 4.4%	5.0%	6.1%	4.8%	5.4%	7.2%	7.6%	7.8%	7.0%
Gross Profit SG&A R&D EBITDA Operating Income Pre-tax Income	15.1% 3.9% 44.4%	16.4% 4.4% 43.4%	5.0% 46.0%	6.1% 41.3%	4.8% 43.9%	5.4% 45.1%	7.2% 43.7%	7.6% 46.6%	7.8% 46.6%	7.0% 45.5%



(\$ in mn)	2016A	2017A	2018E	2019E	2020E	2021E	2022E
Revenue	4,010.3	3,468.9	2,801.4	2,745.7	2,733.5	2,618.3	2,721.6
COGS	1,586.2	1,275.8	885.8	863.7	869.8	869.8	903.8
Gross Profit	2,424.1	2,193.0	1,915.6	1,882.0	1,863.7	1,748.5	1,817.8
SG&A	724.7	593.2	527.9	480.0	480.0	480.0	480.0
R&D	176.3	165.3	196.0	180.0	160.0	160.0	160.0
EBITDA	1,629.9	1,521.2	1,275.0	1,322.0	1,328.7	1,218.8	1,293.5
Operating Income	1,523.1	1,434.5	1,191.7	1,222.0	1,223.7	1,108.5	1,177.8
Interest and Other	-447.2	-479.8	-537.0	-537.0	-518.9	-510.0	-469.0
Pre-tax Income	1,075.9	954.6	654.7	685.0	704.8	598.5	708.8
Income Tax	21.5	94.3	81.6	82.2	91.6	83.8	99.2
Tax Rate	2.0%	9.9%	12.5%	12.0%	13.0%	14.0%	14.0%
Net Income	1,054.4	860.4	573.1	602.8	613.2	514.7	609.6
Adjusted EPS	\$4.73	\$3.84	\$2.54	\$2.67	\$2.71	\$2.28	\$2.70
Diluted Shares	223.1	224.0	225.7	226.0	226.0	226.0	226.0
GAAP EPS	-\$14.48	-\$5.52	-\$2.86	\$0.70	\$0.92	\$0.57	\$1.05
YoY % Change							
Total Revenue	23%	-14%	-19%	-2%	0%	-4%	4%
COGS	30%	-20%	-31%	-2%	1%	0%	4%
Gross Profit	18%	-10%	-13%	-2%	-1%	-6%	4%
SG&A	18%	-18%	-11%	0%	0%	0%	0%
R&D	90%	-6%	19%	-8%	-11%	0%	0%
EBITDA	15%	-7%	-16%	4%	1%	-8%	6%
Operating Income	13%	-6%	-17%	3%	0%	-9%	6%
Pre-tax Income	11%	-11%	-31%	5%	3%	-15%	18%
Net Income	13%	-18%	-33%	5%	2%	-16%	18%
Adjusted EPS	2%	-19%	-34%	5%	2%	-16%	18%
% of Revenue							
COGS	39.6%	36.8%	31.6%	31.5%	31.8%	33.2%	33.2%
Gross Profit	60.4%	63.2%	68.4%	68.5%	68.2%	66.8%	66.8%
SG&A	18.1%	17.1%	18.8%	17.5%	17.6%	18.3%	17.6%
R&D	4.4%	4.8%	7.0%	6.6%	5.9%	6.1%	5.9%
EBITDA	40.6%	43.9%	45.5%	48.1%	48.6%	46.5%	47.5%
Operating Income	38.0%	41.4%	42.5%	44.5%	44.8%	42.3%	43.3%
Pre-tax Income	26.8%	27.5%	23.4%	24.9%	25.8%	22.9%	26.0%
Net Income	26.3%	24.8%	20.5%	22.0%	22.4%	19.7%	22.4%

Source: Deutsche Bank, Company reports



Figure 3: Endo Quarterly Revenue Model

(\$ in mn)	Mar-17A	Jun-17A	Sep-17A	Dec-17A	2017A	Mar-18A	Jun-18E	Sep-18E	Dec-18E	2018E
Opana ER	35.7	31.6	14.8	1.8	83.8	1.0	1.0	1.0	1.0	4.0
Voltaren Gel	14.3	20.3	19.1	15.1	68.8	11.3	12.1	12.0	12.3	47.8
Lidoderm	13.2	11.7	12.9	13.9	51.6	10.0	9.5	9.0	8.5	37.0
Percocet	30.9	30.9	31.3	32.0	125.2	32.0	29.3	29.8	30.4	121.5
Supprelin LA	19.2	23.6	20.6	22.7	86.2	20.6	24.8	21.7	23.9	91.0
Xiaflex	49.5	50.1	52.5	61.3	213.4	57.1	58.2	58.4	69.8	243.5
Belbuca										
Other Branded Products	87.3	77.0	82.6	81.5	328.5	62.0	61.6	70.2	69.3	263.1
Royalty and Other	0.0	0.0	0.0	0.0	0.0	6.3	6.3	6.3	6.3	25.0
US Branded-Specialty & Est.	250.2	245.2	233.8	228.4	957.5	200.2	202.9	208.3	221.5	832.9
US Generic	550.0	383.3	294.7	303.1	1,531.0	249.2	239.6	233.9	228.2	950.9
US Branded-Sterile Injectables	172.0	180.0	202.0	196.0	750.0	215.9	223.2	226.7	226.7	892.4
Total US	972.1	808.5	730.5	727.4	3,238.5	665.3	665.7	668.9	676.3	2,676.2
International	65.5	67.2	56.4	41.2	230.3	35.2	30.0	30.0	30.0	125.2
Total Revenue	1,037.6	875.7	786.9	768.6	3,468.9	700.5	695.7	698.9	706.3	2,801.4
V-V 0/ Observe										
YoY % Change	222/	400/	200/	0.50/	470/	070/	070/	000/	4.407	0.50/
Opana ER	-20%	-18%	-60%	-95%	-47%	-97%	-97%	-93%	-44%	-95%
Voltaren Gel	-60%	-26%	1%	-19%	-32%	-21%	-40%	-37%	-19%	-31%
Lidoderm	-33%	-57%	-35%	-34%	-41%	-24%	-19%	-30%	-39%	-28%
Percocet	-8%	-13%	-7%	-11%	-10%	3%	-5%	-5%	-5%	-3%
Supprelin LA	11%	11%	6%	9%	10%	7%	5%	5%	5%	6%
Xiaflex	12%	18%	10%	10%	12%	15%	16%	11%	14%	14%
Belbuca										
Other Branded Products	-23%	-20%	-18%	-13%	-19%	-29%	-20%	-15%	-15%	-20%
Royalty and Other										
US Branded-Specialty & Est.	-19%	-15%	-16%	-21%	-18%	-20%	-17%	-11%	-3%	-13%
US Generic	23%	-10%	-23%	-58%	-23%	-55%	-37%	-21%	-25%	-38%
US Branded-Sterile Injectables	27%	30%	36%	26%	30%	25%	24%	12%	16%	19%
Total US	9%	-5%	-10%	-38%	-13%	-32%	-18%	-8%	-7%	-17%
International	-8%	0%	-20%	-41%	-18%	-46%	-55%	-47%	-27%	-46%
Total Revenue	8%	-5%	-11%	-38%	-14%	-32%	-21%	-11%	-8%	-19%
% of Revenue										
Opana ER	3%	4%	2%	0%	2%	0%	0%	0%	0%	0%
Voltaren Gel	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Lidoderm	1%	1%	2%	2%	1%	1%	1%	1%	1%	1%
Percocet	3%	4%	4%	4%	4%	5%	4%	4%	4%	4%
Supprelin LA	2%	3%	3%	3%	2%	3%	4%	3%	3%	3%
Xiaflex	5%	6%	7%	8%	6%	8%	8%	8%	10%	9%
Belbuca	070	070	. ,0	070	0,0	0,0	070	0,0	1070	070
Other Branded Products	8%	9%	10%	11%	9%	9%	9%	10%	10%	9%
Royalty and Other	0%	0%	0%	0%	0%	1%	1%	1%	1%	1%
US Branded-Specialty & Est.	24%	28%	30%	30%	28%	29%	29%	30%	31%	30%
US Generic	53%	44%	37%	39%	44%	36%	34%	33%	32%	34%
US Branded-Sterile Injectables	17%	21%	26%	25%	22%	31%	32%	32%	32%	32%
Total US	94%	92%	93%	95%	93%	95%	96%	96%	96%	96%
International	94% 6%	8%	7%	5%	7%	5% 5%	4%	4%	4%	4%
	0 70	0 /0	1 /0	5 /0	1 /0	J /0	4 /0	4 /0	4 /0	4 /0

Source: Deutsche Bank, Company reports



(\$ in mn)	2016A	2017A	2018E	2019E	2020E	2021E	2022E
Opana ER	158.9	83.8					
Voltaren Gel	100.6	68.8	47.8	46.2	46.1	45.9	45.8
Lidoderm	87.6	51.6	37.0	32.3	30.7	29.2	27.7
Percocet	139.2	125.2	121.5	115.5	109.7	104.2	99.0
Supprelin LA	78.6	86.2	91.0	95.5	100.3	105.3	110.6
Xiaflex	189.7	213.4	243.5	259.9	299.4	338.1	392.5
Belbuca	8.0						
Other Branded Products	403.6	328.5	263.1	249.9	237.4	225.6	214.3
Royalty and Other	0.0	0.0	25.0	23.8	22.6	21.4	20.4
US Branded-Specialty & Est.	1,166.3	957.5	832.9	827.0	850.1	873.7	914.3
US Generic	1,987.6	1,531.0	950.9	891.2	903.2	937.0	971.2
US Branded-Sterile Injectables	577.0	750.0	892.4	902.3	855.0	682.4	711.0
Total US	3,730.9	3,238.5	2,676.2	2,620.5	2,608.3	2,493.1	2,596.4
International	279.4	230.3	125.2	125.2	125.2	125.2	125.2
Total Revenue	4,010.3	3,468.9	2,801.4	2,745.7	2,733.5	2,618.3	2,721.6
YoY % Change							
Opana ER	-10%	-47%					
Voltaren Gel							
Lidoderm	-30%	-41%	-28%	-13%	-5%	-5%	-5%
Percocet	2%	-10%	-3%	-5%	-5%	-5%	-5%
Supprelin LA	12%	10%	6%	5%	5%	5%	5%
Xiaflex	20%	12%	14%	7%	15%	13%	16%
Belbuca							
Other Branded Products	-2%	-19%	-20%	-5%	-5%	-5%	-5%
Royalty and Other	0%	0%	0%	-5%	-5%	-5%	-5%
US Branded-Specialty & Est.	-9%	-18%	-13%	-1%	3%	3%	5%
US Generic	25%	-23%	-38%	-6%	1%	4%	4%
US Branded-Sterile Injectables	579%	30%	19%	1%	-5%	-20%	4%
Total US	26%	-13%	-17%	-2%	0%	-4%	4%
International	-10%	-18%	-46%	0%	0%	0%	0%
Total Revenue	23%	-14%	-19%	-2%	0%	-4%	4%
% of Revenue							
Opana ER	4%	2%					
Voltaren Gel	3%	2%	2%	2%	2%	2%	2%
Lidoderm	2%	1%	1%	1%	1%	1%	1%
Percocet	3%	4%	4%	4%	4%	4%	4%
Supprelin LA	2%	2%	3%	3%	4%	4%	4%
Xiaflex	5%	6%	9%	9%	11%	13%	14%
Belbuca	0%						
Other Branded Products	10%	9%	9%	9%	9%	9%	8%
Royalty and Other	0%	0%	1%	1%	1%	1%	1%
US Branded-Specialty & Est.	29%	28%	30%	30%	31%	33%	34%
US Generic	50%	44%	34%	32%	33%	36%	36%
US Branded-Sterile Injectables	14%	22%	32%	33%	31%	26%	26%
Total US	93%	93%	96%	95%	95%	95%	95%
International	7%	7%	4%	5%	5%	5%	5%
Total Revenue	100%	100%	100%	100%	100%	100%	100%



Appendix 1

Important Disclosures

*Other information available upon request

Disclosure checklist			
Company	Ticker	Recent price*	Disclosure
Endo International	ENDP.OQ	10.56 (USD) 16 Jul 18	2,7,8

Prices are current as of the end of the previous trading session unless otherwise indicated and are sourced from local exchanges via Reuters, Bloomberg and other vendors. Other information is sourced from Deutsche Bank, subject companies, and other sources. For disclosures pertaining to recommendations or estimates made on securities other than the primary subject of this research, please see the most recently published company report or visit our global disclosure look-up page on our website at https://research.db.com/Research/Disclosures/CompanySearch. Aside from within this report, important conflict disclosures can also be found at https://research.db.com/Research/Topics/Equities?topicId=RB0002 under the "Disclosures Lookup" and "Legal" tabs. Investors are strongly encouraged to review this information before investing.

Important Disclosures Required by U.S. Regulators

Disclosures marked with an asterisk may also be required by at least one jurisdiction in addition to the United States. See Important Disclosures Required by Non-US Regulators and Explanatory Notes.

- 2. Deutsche Bank and/or its affiliate(s) makes a market in equity securities issued by this company.
- 7. Deutsche Bank and/or its affiliate(s) has received compensation from this company for the provision of investment banking or financial advisory services within the past year.
- Deutsche Bank and/or its affiliate(s) expects to receive, or intends to seek, compensation for investment banking services from this company in the next three months.

Important Disclosures Required by Non-U.S. Regulators

Please also refer to disclosures in the Important Disclosures Required by US Regulators and the Explanatory Notes.

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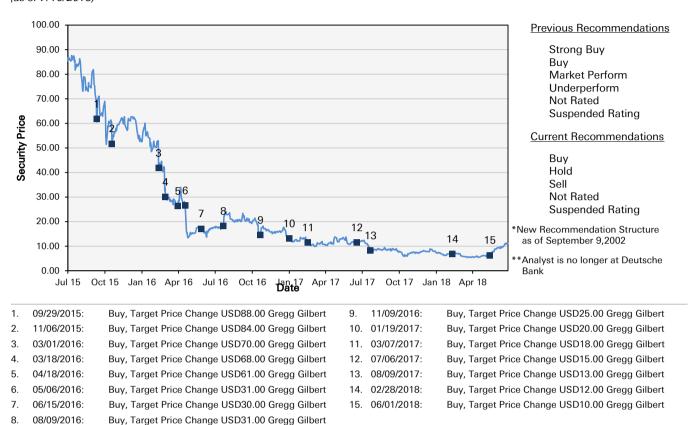
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Historical recommendations and target price: Endo International (ENDP.OQ) (as of 7/16/2018)



Equity rating key

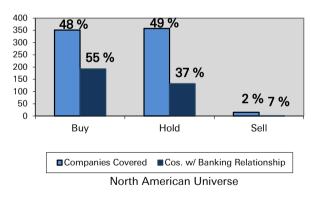
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Equity rating dispersion and banking relationships



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