



## MARKET INSIGHT

# Year-End Valuations Update

January 2019

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# January 31, 2019 – Update

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- In light of Q4's pronounced drop in the equity markets and the subsequent resurgence in January 2019, Bourne Partners ("Bourne") feels it is necessary to note the following changes since Dec. 31, 2019:
  - The TEV/EVITDA multiple for the **CDMO** market has seen a **rebound of 7.5% to 15.8x**
  - The TEV/EVITDA multiple for the **CRO** market has seen a **rebound of 6.7% to 17.5x**
  - The TEV/EVITDA multiple for the **PBM/Managed Care** market has seen a **rebound of 1.6% to 12.3x**
  - The TEV/EVITDA multiple for the **Compounding/Specialty Pharmacy** market has seen a **rebound of 4.6% to 18.0x**
  - The TEV/EVITDA multiple for the **Branded Specialty Pharma** market has seen a **rebound of 13.4% to 11.0x**
  - The TEV/EVITDA multiple for the **Generic Pharma** market has seen a **rebound of 4.1% to 10.2x**
  - The TEV/EBITDA multiple for the **Consumer Healthcare** market has been **steady at 14.2x**
- Every sector covered in this report has seen a rebound or has stayed steady since the end of 2018

## Pharma Services

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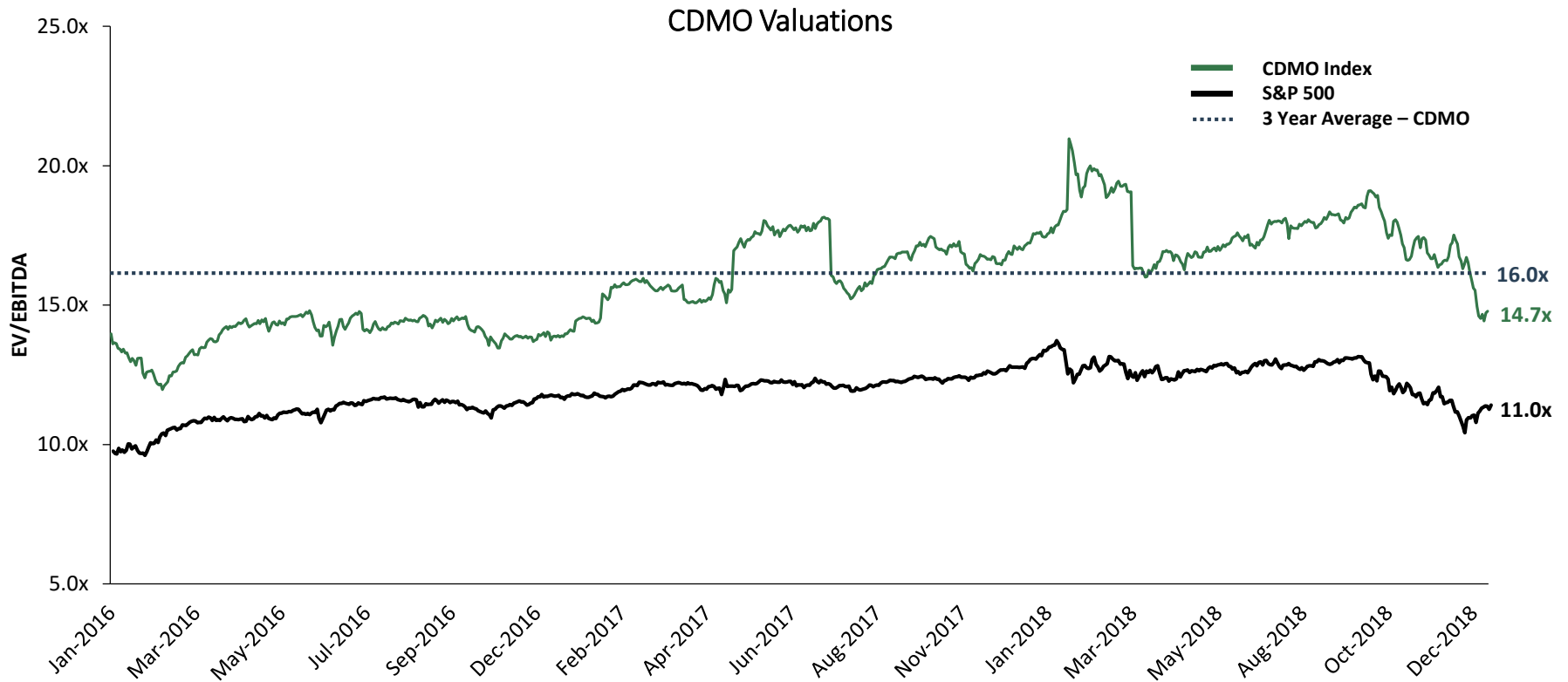
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# CDMO Recap

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- Due to the late year decline, CDMO multiples are depressed from the 2018 high of 21.0x but still remain elevated overall
- The Dec. 31, 2018 TEV/EBITDA multiple for the CDMO sector was **14.7x LTM EBITDA**
  - **34% premium to the broader market** but **below its three year average of 16.0x**
- Bourne Partners believes the CDMO sector has been particularly hot over the last handful of years and may see additional correction in 2019 as a result
  - However, this sector will remain strong compared to the overall market due to industry tailwinds (i.e. the continued outsourcing of manufacturing from larger pharma companies)
- As Biopharma continues its run, CDMOs focused on biologics should see higher multiples than their traditional CDMO counterparts

# Trading History (3 Years) – CDMO



- The CDMO Index' Year-End TEV/EBITDA multiple: **14.7x**
- Three Year Average TEV/EBITDA multiple for the CDMO Index: **16.0x**

# Trading Comps – CDMO

## CDMO Trading Comps

USD in millions, except for per-share amounts

Company	Ticker	Share Price	LTM Sales	LTM EBITDA	LTM EPS
Bachem Holding AG	SWX:BANB	\$115.45	\$254.7	\$68.6	\$3.49
Balchem Corporation	NasdaqGS:BCPC	78.35	639.4	155.1	3.21
Cambrex Corporation	NYSE:CBM	37.76	579.0	176.6	3.45
Catalent, Inc.	NYSE:CTLT	31.18	2,471.3	505.6	1.78
Consort Medical plc	LSE:CSRT	11.92	395.3	71.2	0.83
Eurofins Scientific SE	ENXTPA:ERF	373.25	3,871.0	686.4	20.88
Johnson Matthey Plc	LSE:JMAT	35.67	19,244.9	898.8	3.00
Jubilant Life Sciences Limited	BSE:530019	10.20	1,194.8	231.1	0.93
Lonza Group Ltd	SWX:LONN	258.85	5,912.3	1,482.6	13.47
Recipharm AB (publ)	OM:RECI B	12.74	694.8	106.4	0.57
Siegfried Holding AG	SWX:SFZN	341.48	783.6	119.0	18.44
Thermo Fisher Scientific Inc.	NYSE:TMO	223.79	23,898.0	5,939.0	11.88
West Pharmaceutical Services, Inc.	NYSE:WST	98.03	1,710.5	350.9	3.02

Company	Ticker	Enterprise Value	EV / Sales	EV / EBITDA	P / E
Bachem Holding AG	SWX:BANB	\$1,702.0	6.7x	24.8x	51.0x
Balchem Corporation	NasdaqGS:BCPC	2,662.0	4.2x	17.2x	44.0x
Cambrex Corporation	NYSE:CBM	1,495.1	2.6x	8.5x	13.9x
Catalent, Inc.	NYSE:CTLT	6,545.7	2.6x	12.9x	33.8x
Consort Medical plc	LSE:CSRT	706.8	1.8x	9.9x	17.8x
Eurofins Scientific SE	ENXTPA:ERF	8,500.0	2.2x	12.4x	28.4x
Johnson Matthey Plc	LSE:JMAT	8,207.8	0.4x	9.1x	16.7x
Jubilant Life Sciences Limited	BSE:530019	2,033.0	1.7x	8.8x	17.2x
Lonza Group Ltd	SWX:LONN	22,973.2	3.9x	15.5x	38.5x
Recipharm AB (publ)	OM:RECI B	1,217.5	1.8x	11.4x	NM
Siegfried Holding AG	SWX:SFZN	1,487.8	1.9x	12.5x	37.6x
Thermo Fisher Scientific Inc.	NYSE:TMO	107,948.6	4.5x	18.2x	52.3x
West Pharmaceutical Services, Inc.	NYSE:WST	7,160.9	4.2x	20.4x	47.9x

Notes:

NA - Not Available

NM - Not Meaningful

Median	\$2,662.0	2.6x	12.5x	35.7x
Mean	13,280.0	3.0x	14.0x	33.3x
Min	706.8	0.4x	8.5x	13.9x
Max	107,948.6	6.7x	24.8x	52.3x

# Transaction Comps – CDMO

CDMO Transaction Comps								
USD in millions								
Announced Date	Target	Buyer	Geographic Location	Enterprise Value	LTM Revenue	LTM EBITDA	EV / LTM Revenue	EV / LTM EBITDA
Nov-18	Avista Pharma Solutions	Cambrex Corporation	USA	\$252.0	\$65.0*	NA	3.9x	NA
Jul-18	AMPAC Fine Chemicals LLC	SK Holdings Co., Ltd.	USA	455.0	200.0	NA	NA	NA
Jul-18	Halo Pharma, Inc.	Cambrex Corporation	USA	425.0	105.0	\$27.0	4.0x	15.7x
Jun-18	Alcami Corporation	Madison Dearborn Partners	USA	NA	NA	NA	NA	NA
Sep-17	Cook Pharmica LLC	Catalent Pharma Solutions, Inc.	USA	950.0	177.8	NA	5.3x	NA
Jul-17	Aptuit LLC	Evotec AG	USA	300.0	92.9	11.6	3.2x	25.8x
Jun-17	PCAS SA	Novacap	France	335.9	243.7	19.7	1.4x	17.0x
Jun-17	Albany Molecular Research, Inc.	The Carlyle Group L.P.	USA	1,593.5	628.7	71.8	2.5x	22.2x
May-17	Patheon N.V.	Thermo Fisher	USA	7,205.3	1,933.0	351.2	3.7x	20.5x
Dec-16	Capsugel, Inc.	Lonza Group Ltd.	USA	5,500.0	1,000.0	344.0	5.5x	16.0x
Sep-16	PharmaCore, Inc.	Cambrex Corporation	USA	25.0	17.0	2.0	1.5x	12.5x

Notes:

NA - Not Available

NM - Not Meaningful

Median	\$440.0	\$188.9	\$27.0	3.7x	17.0x
Mean	1,865.5	488.7	118.2	3.4x	18.5x
Min	25.0	17.0	2.0	1.4x	12.5x
Max	7,205.3	1,933.0	351.2	5.5x	25.8x

Source: CapitalIQ Dec. 31, 2018

\*Cambrex Corporation Press Release

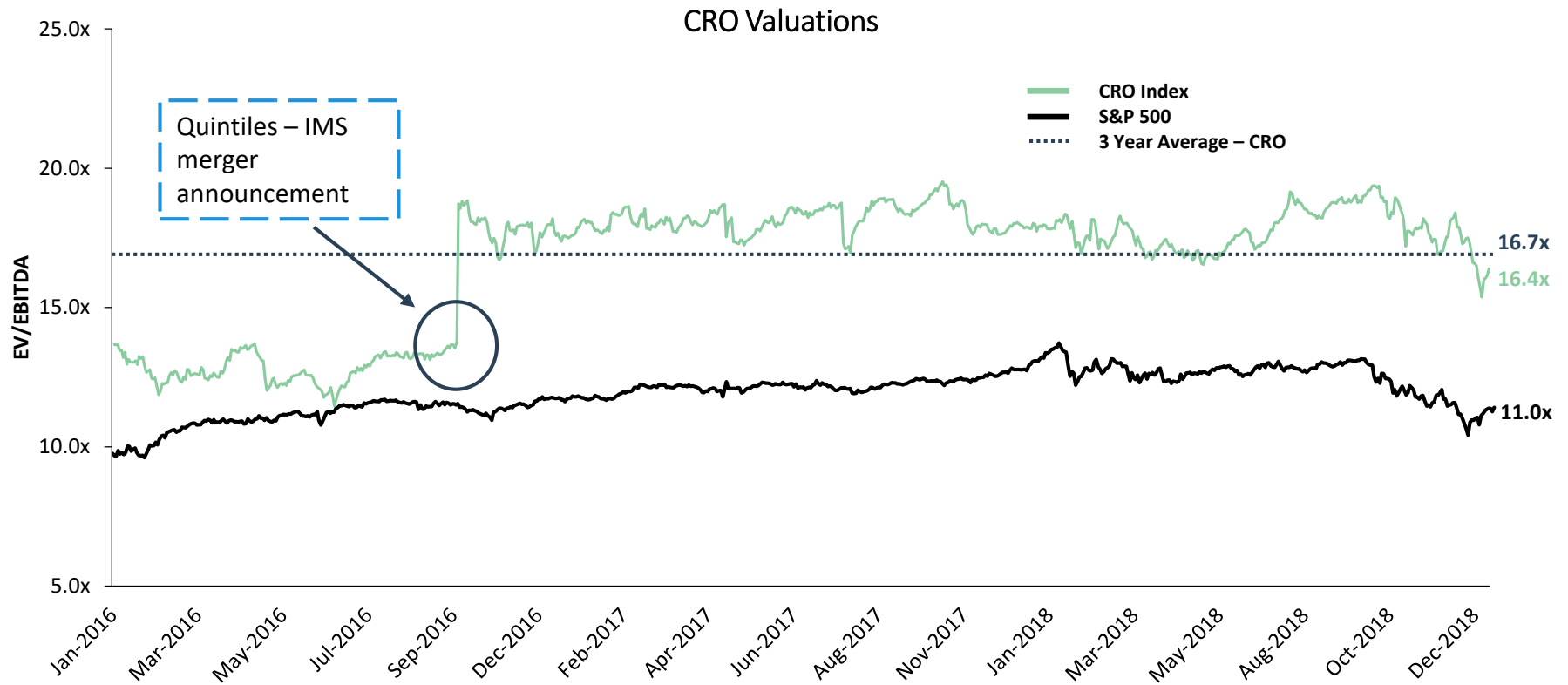


# CRO Recap

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- Despite the late year sell-off, the CRO market continues to see heightened multiples
- The Dec. 31, 2018 TEV/EBITDA multiple for the CRO sector is **16.4x LTM EBITDA**
  - **49% premium to the broader market and level with its three year average of 16.7x**
- The sharp increase in TEV/EBITDA multiples in late 2016 is from the increase that IQVIA Holdings (then known as Quintiles Transnational Holdings) saw when it announced it's merger with IMS Health Holdings. This is pronounced in the graph because of IQVIA's size/weighting in the index
- Moving forward, Bourne Partners expects to see some correction in the CRO market, but believes it will stay propped above the broader market due to industry tailwinds
  - The positive sentiment towards CROs from pharmaceutical companies and investors should continue as pharmaceutical companies continue to outsource clinical development services to focus on core-competencies
  - We also expect to see an increased use of big data for CROs in an effort to streamline many of the development processes

# Trading History (3 Years) – CRO



- The CRO Index' Year-End TEV/EBITDA multiple: **16.4x**
- Three Year Average TEV/EBITDA multiple for the CRO Index: **16.7x**

# Trading Comps – CRO

## CRO Trading Comps

USD in millions, except for per-share amounts

Company	Ticker	Share Price	LTM Sales	LTM EBITDA	LTM EPS
Charles River Laboratories International, Inc.	NYSE:CRL	\$113.18	\$2,143.0	\$495.0	\$6.07
ICON Public Limited Company	NasdaqGS:ICLR	129.21	2,371.9	444.5	6.60
IQVIA Holdings Inc.	NYSE:IQV	116.17	8,603.0	1,817.0	6.02
Linical Co., Ltd.	TSE:2183	11.78	91.7	17.6	0.61
Medpace Holdings, Inc.	NasdaqGS:MEDP	52.93	611.9	126.5	2.88
PRA Health Sciences, Inc.	NasdaqGS:PRAH	91.96	2,487.2	410.3	4.69
Syneos Health, Inc.	Nasdaq:SYNH	39.35	3,995.1	489.1	3.01

Company	Ticker	Enterprise Value	EV / Sales	EV / EBITDA	P / E
Charles River Laboratories International, Inc.	NYSE:CRL	\$6,983.8	3.3x	14.1x	27.6x
ICON Public Limited Company	NasdaqGS:ICLR	6,891.4	2.9x	15.5x	33.6x
IQVIA Holdings Inc.	NYSE:IQV	32,753.0	3.8x	18.0x	95.8x
Linical Co., Ltd.	TSE:2183	259.2	2.8x	14.8x	24.8x
Medpace Holdings, Inc.	NasdaqGS:MEDP	1,991.6	3.3x	15.7x	58.1x
PRA Health Sciences, Inc.	NasdaqGS:PRAH	7,039.1	2.8x	17.2x	53.2x
Syneos Health, Inc.	Nasdaq:SYNH	6,804.8	1.7x	13.9x	NM

Notes:

NA - Not Available

NM - Not Meaningful

<b>Median</b>	<b>\$6,891.4</b>	<b>2.9x</b>	<b>15.5x</b>	<b>43.4x</b>
<b>Mean</b>	8,960.4	2.9x	15.6x	48.8x
<b>Min</b>	259.2	1.7x	13.9x	24.8x
<b>Max</b>	32,753.0	3.8x	18.0x	95.8x

# Transaction Comps – CRO

CRO Transaction Comps								
USD in millions								
Announced Date	Target	Buyer	Geographic Location	Enterprise Value	LTM Revenue	LTM EBITDA	EV / LTM Revenue	EV / LTM EBITDA
Mar-18	Accelovance, Inc.	Linical USA, Inc.	USA	\$32.9	\$26.8	NA	1.2x	NA
Feb-18	MPI Research Inc.	Charles River Laboratories International, Inc.	USA	800.0	240.0	\$68.4	3.3x	11.7x
Sep-17	Optimal Research	Synexus Limited	USA	NA	NA	NA	NA	NA
Jul-17	MAPI Development SAS	ICON Public Limited Company	France	139.5	NA	NA	NA	NA
Jul-17	Chiltern International Limited	Covance Inc.	UK	1,200.0	NA	NA	NA	NA
Jun-17	PAREXEL International Corporation	Pamplona Capital Management LLP	USA	5,007.4	2,097.0	342.8	2.4x	14.6x
May-17	inVentiv Health	INC Research Holdings, Inc.	USA	4,513.7	2,177.4	292.7	2.1x	15.4x
Sep-16	ExecuPharm Inc.	PAREXEL International Corporation	USA	155.0	NA	NA	NA	NA
May-16	IMS Health Holdings, Inc.	Quintiles Transnational Holdings Inc.	USA	13,266.8	3,063.0	743.0	4.3x	17.9x
May-16	Synexus Limited	Pharmaceutical Product Development, LLC	UK	257.8	68.8	15.9	3.7x	16.2x

Notes:

NA - Not Available

NM - Not Meaningful

<b>Median</b>	\$800.0	\$1,168.5	\$292.7	2.9x	15.4x
<b>Mean</b>	2,819.2	1,278.8	292.6	2.9x	15.2x
<b>Min</b>	32.9	26.8	15.9	1.2x	11.7x
<b>Max</b>	13,266.8	3,063.0	743.0	4.3x	17.9x

PBM/Managed Care

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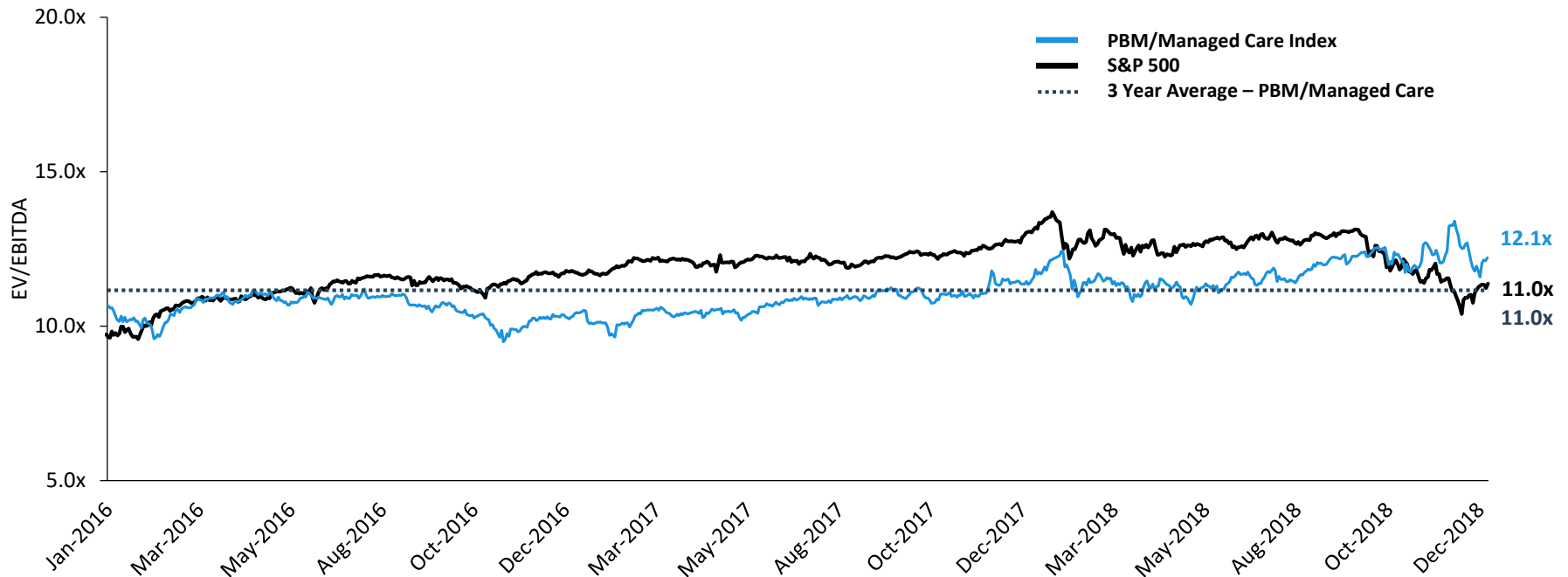
# PBM/Managed Care Recap

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- Over the last three years, PBMs and Managed Care organizations have traded roughly in line with the S&P 500, but with the Q4 market sell-off, multiples for the PBM/Managed Care segment have surpassed those of the S&P 500
- The Dec. 31, 2018 TEV/EBITDA multiple for the PBM/Managed Care sector was **12.1x LTM EBITDA**
  - **10% premium to the broader market** and **above its three year average of 11.0x**
- In 2018, valuations and economics were largely driven by mega-deals and transformational moves such as the CVS-Aetna, Cigna-Express Scripts, and Amazon-PillPack transactions
  - Both CVS-Aetna and Cigna-Express Scripts showed the industry's move toward vertical integration in an effort to control the skyrocketing cost of healthcare and expand network/service profile
  - The Amazon-PillPack transaction was not directly between PBM's or Managed Care Organizations but promises to disrupt the traditional drug supply chain and pharmaceutical delivery channels

# Trading History (3 Years) – PBM/Managed Care

PBM/Managed Care Valuations



- The PBM/Managed Care Index' Year-End TEV/EBITDA multiple: **12.1x**
- Three Year Average TEV/EBITDA multiple for the PBM/Managed Care Index: **11.0x**

# Trading Comps – PBM/Managed Care

## PBM/Managed Care Trading Comps

USD in millions, except for per-share amounts

Company	Ticker	Share Price	LTM Sales	LTM EBITDA	LTM EPS
Anthem, Inc.	NYSE:ANTM	\$262.63	\$92,105.0	\$6,959.0	\$11.99
Centene Corporation	NYSE:CNC	115.30	52,615.0	2,373.0	4.53
Cigna Corporation	NYSE:CI	189.92	44,542.0	5,151.0	10.44
CVS Health Corporation	NYSE:CVS	65.52	188,055.0	12,662.0	5.42
Humana Inc.	NYSE:HUM	286.48	55,933.0	3,549.0	13.98
UnitedHealth Group Incorporated	NYSE:UNH	249.12	226,247.0	19,772.0	9.73

Company	Ticker	Enterprise Value	EV / Sales	EV / EBITDA	P / E
Anthem, Inc.	NYSE:ANTM	\$83,808.2	0.9x	12.0x	21.9x
Centene Corporation	NYSE:CNC	23,456.0	0.4x	9.9x	25.5x
Cigna Corporation	NYSE:CI	73,335.3	1.6x	14.2x	18.2x
CVS Health Corporation	NYSE:CVS	105,924.4	0.6x	8.4x	12.1x
Humana Inc.	NYSE:HUM	40,530.3	0.7x	11.4x	20.5x
UnitedHealth Group Incorporated	NYSE:UNH	265,350.0	1.2x	13.4x	25.6x

Notes:

NA - Not Available

NM - Not Meaningful

<b>Median</b>	<b>\$78,571.7</b>	<b>0.8x</b>	<b>11.7x</b>	<b>21.2x</b>
<b>Mean</b>	98,734.0	0.9x	11.6x	20.6x
<b>Min</b>	23,456.0	0.4x	8.4x	12.1x
<b>Max</b>	265,350.0	1.6x	14.2x	25.6x



# Transaction Comps – PBM/Managed Care

PBM/Managed Care Transaction Comps								
USD in millions								
Announced Date	Target	Buyer	Geographic Location	Enterprise Value	LTM Revenue	LTM EBITDA	EV / LTM Revenue	EV / LTM EBITDA
Sep-18	Genoa Healthcare, LLC	OptumRx, Inc.	USA	\$2,500.0	NA	NA	NA	NA
Jul-18	Pulse Rx Inc.	Leviathan Cannabis Group Inc.	Canada	4.2	\$1.9	NA	2.2x	NA
Mar-18	RxAdvance Corporation	Centene Corporation	USA	NA	NA	NA	NA	NA
Mar-18	Express Scripts Holding Company	Cigna Corporation	USA	68,671.4	100,064.6	\$7,132.5	0.7x	9.6x
Dec-17	Aetna Inc.	CVS Health Corporation	USA	69,643.0	60,535.0	5,685.0	1.2x	12.3x
Nov-17	National Pharmaceutical Services	Diplomat Pharmacy, Inc.	USA	47.0	32.0	5.4	1.5x	8.7x
Nov-16	Integrated Prescription Solutions, Inc.	Mitchell International, Inc.	USA	NA	NA	NA	NA	NA
Jan-16	Helios Comp	OptumRx, Inc.	USA	1,600.0	NA	NA	NA	NA
Mar-15	Catamaran Corporation	OptumRx, Inc.	USA	13,385.5	21,581.9	845.7	0.6x	15.8x
Feb-15	Healthcare Solutions, Inc.	Catamaran Corporation	USA	405.0	NA	35.0	NA	11.6x
Feb-15	Envision Topco Holdings, LLC	Rite Aid Corporation	USA	2,640.1	4,071.4	94.3	0.6x	28.0x

Notes:	<b>Median</b>	\$2,500.0	\$12,826.6	\$470.0	<b>0.9x</b>	<b>11.9x</b>
NA - Not Available	<b>Mean</b>	17,655.1	31,047.8	2,299.7	<b>1.1x</b>	<b>14.3x</b>
NM - Not Meaningful	<b>Min</b>	4.2	1.9	5.4	<b>0.6x</b>	<b>8.7x</b>
	<b>Max</b>	69,643.0	100,064.6	7,132.5	<b>2.2x</b>	<b>28.0x</b>

## Compounding/Specialty Pharmacy

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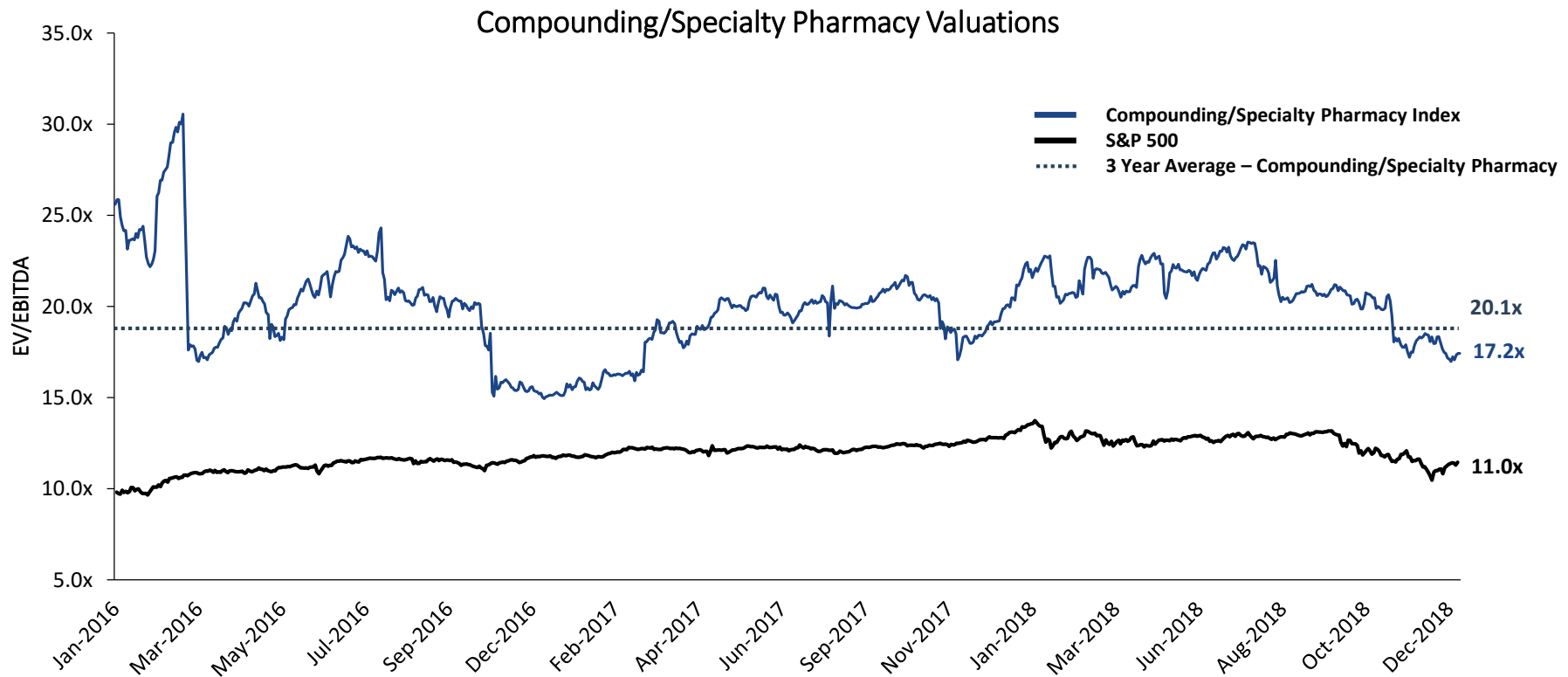
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# Compounding/Specialty Pharmacy Recap

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- Despite the late year sell-off, multiples remain elevated in the Compounding/Specialty Pharmacy market in comparison to the S&P 500
- The Dec. 31, 2018 TEV/EBITDA multiple for the Compounding/Specialty Pharmacy sector was **17.2x LTM EBITDA**
  - **56% premium to the broader market** but **below its three year average of 20.1x**
- As you'll see in the trading graph, there was a significant dip in multiples in the early Spring of 2016 – a blip that comes from a steep decline in Diplomat Pharmacy's TEV/EBITDA multiple at the same time
  - The decrease for Diplomat came on the back of an announcement of change in executive(s) and was compounded by its earnings release/guidance given in Q1 2016
  - Without this dip, the three year average TEV/EBITDA for Compounding/Specialty Pharmacies would likely sit lower but still above its current multiple
- Bourne believes this sector's multiples will remain favorable due to the margin profiles, the nascent and untapped opportunity within the Compounding market, the continued specialization of newer drugs, and the niche nature of the service provided by specialty pharmacies
- Although there is not a large universe of publicly traded companies in the space, there have been a myriad of Private Equity companies interested in the space, including but not limited to Bain Capital, Enhanced Healthcare Partners, and HIG Capital

# Trading History (3 Years) – Compounding/Specialty Pharmacy



- The Compounding/Specialty Pharmacy Index' Year-End TEV/EBITDA multiple: **17.2x**
- Three Year Average TEV/EBITDA multiple for the Compounding/Specialty Pharmacy Index: **20.1x**

# Trading Comps – Compounding/Specialty Pharmacy

## Compounding/Specialty Pharmacy Trading Comps

USD in millions, except for per-share amounts

Company	Ticker	Share Price	LTM Sales	LTM EBITDA	LTM EPS
Diplomat Pharmacy, Inc.	NYSE:DPLO	\$13.46	\$5,287.0	\$106.6	\$0.14
Harrow Health, Inc.	NasdaqCM:HROW	5.69	37.3	(3.4)	(0.54)
BioScrip, Inc.	NasdaqGS:BIOS	3.57	707.9	46.8	(0.21)
Fagron NV	ENXTBR:FAGR	16.35	522.5	98.9	0.59

Company	Ticker	Enterprise Value	EV / Sales	EV / EBITDA	P / E
Diplomat Pharmacy, Inc.	NYSE:DPLO	\$1,623.8	0.3x	15.2x	96.4x
Harrow Health, Inc.	NasdaqCM:HROW	141.5	3.8x	NM	NM
BioScrip, Inc.	NasdaqGS:BIOS	937.0	1.3x	20.0x	NM
Fagron NV	ENXTBR:FAGR	1,478.5	2.8x	14.9x	27.6x

Notes:

NA - Not Available

NM - Not Meaningful

Median	\$1,207.8	2.1x	15.2x	NM
Mean	1,045.2	2.1x	16.7x	NM
Min	141.5	0.3x	14.9x	27.6x
Max	1,623.8	3.8x	20.0x	96.4x

# Transaction Comps – Compounding/Specialty Pharmacy

## Compounding/Specialty Pharmacy Transaction Comps

USD in millions

Announced Date	Target	Buyer	Geographic Location	Enterprise Value	LTM Revenue	LTM EBITDA	EV / LTM Revenue	EV / LTM EBITDA
Nov-17	Leehar Distributors, Inc.	Diplomat Pharmacy, Inc.	USA	\$595.6	\$388.0	\$41.0	1.5x	14.5x
Nov-17	Salus Pharmacare Inc.	Centric Health Corporation	Canada	3.2	NA	0.5	NA	6.8x
Aug-17	Quantum Pharma Plc	True Nature Holding, Inc.	United Kingdom	199.9	119.5	8.2	1.7x	24.4x
Apr-16	Diplomat Specialty Pharmacy of Los Angeles County, Inc.	Diplomat Pharmacy, Inc.	USA	75.7	400.0	9.0	NM	8.4x
Apr-16	Integrity Compounding Pharmacy, LLC	True Nature Holding, Inc.	USA	1.0	0.9	NA	1.1x	NA
Oct-15	PharMEDium Healthcare Holdings, Inc.	AmerisourceBergen Drug Corporation	USA	3,060.8	405.7	96.0	7.5x	31.9x
May-15	AnazaoHealth Corporation	Fagron NV	USA	97.8	NA	16.3	NA	6.0x

Notes:

NA - Not Available

NM - Not Meaningful

<b>Median</b>	\$148.9	\$264.3	\$12.7	<b>1.6x</b>	<b>11.5x</b>
<b>Mean</b>	531.9	242.4	28.5	<b>2.7x</b>	<b>15.3x</b>
<b>Min</b>	1.0	0.9	0.5	<b>1.1x</b>	<b>6.0x</b>
<b>Max</b>	3,060.8	405.7	96.0	<b>7.5x</b>	<b>31.9x</b>

Pharmaceuticals

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# Branded Specialty Pharma Recap

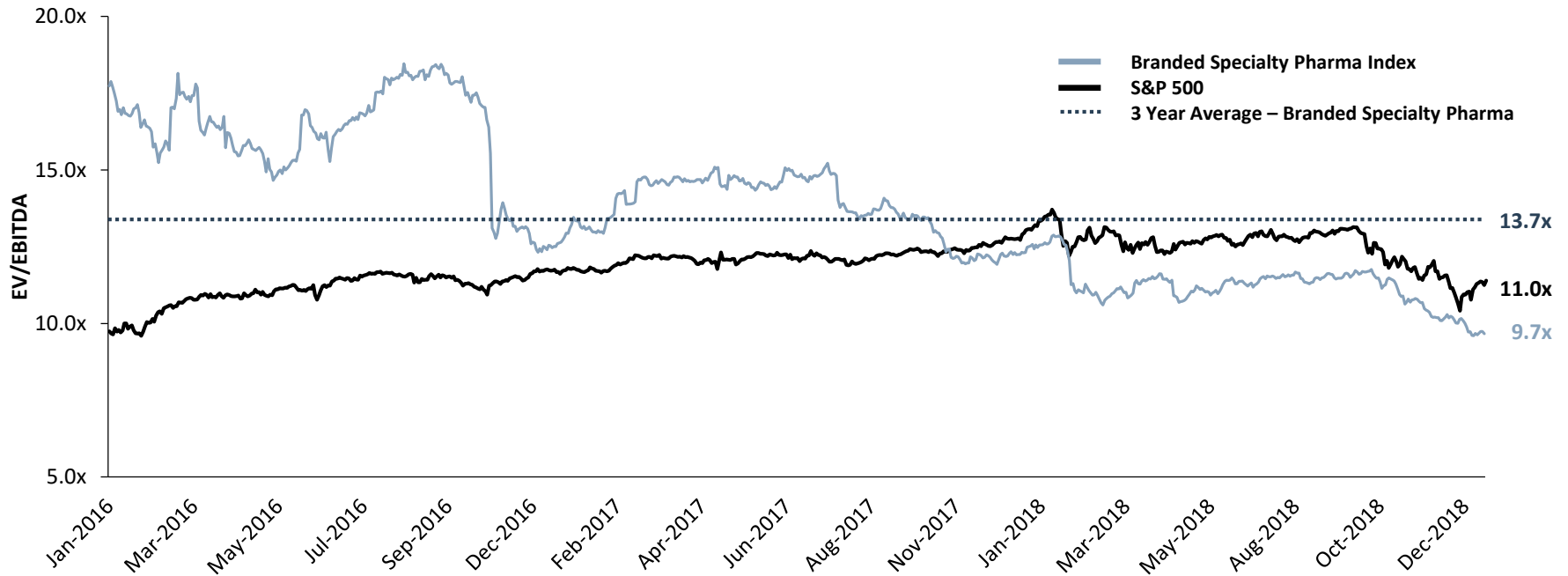
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- The Branded Specialty Pharma segment has seen sharp declines starting in late 2015 due to the loss of the traditionally strong pricing lever
  - This issue was amplified in 2018 due to the scrutiny of Pharma by President Trump
- The Dec. 31, 2018 TEV/EBITDA multiple for the Branded Specialty Pharma sector was **9.7x LTM EBITDA**
  - **12% discount to the broader market** and **below its three year average of 13.7x**
- Bourne Partners believes the Branded Specialty Pharma sector is in a trough and that it could be poised for a boost in the near future, making now a good time to buy in the cycle



# Trading History (3 Years) – Branded Specialty Pharma

## Branded Specialty Pharma Valuations



- The Branded Specialty Pharma Index' Year-End TEV/EBITDA multiple: **9.7x**
- Three Year Average TEV/EBITDA multiple for the Branded Specialty Pharma Index: **13.7x**

# Trading Comps – Branded Specialty Pharma

Branded Specialty Trading Comps					
<i>USD in millions, except for per-share amounts</i>					
Company	Ticker	Share Price	LTM Sales	LTM EBITDA	LTM EPS
Allergan plc	NYSE:AGN	\$133.66	\$16,033.8	\$7,441.8	(\$1.97)
Almirall, S.A.	BME:ALM	15.31	829.8	124.9	0.08
ADVANZ PHARMA Corp.	TSX:ADVZ.U	18.88	569.6	256.2	NM
Assertio Therapeutics, Inc.	NasdaqGS:ASRT	3.61	363.6	183.4	(0.84)
Indivior PLC	LSE:INDV	1.43	1,033.0	366.0	0.31
Ipsen S.A.	ENXTPA:IPN	129.21	2,528.5	701.4	3.41
Jazz Pharmaceuticals plc	NasdaqGS:JAZZ	123.96	1,850.9	902.7	5.47
H. Lundbeck A/S	CPSE:LUN	43.77	2,853.3	1,053.3	2.06
Horizon Pharma Public Limited Company	NasdaqGS:HZNP	19.54	1,126.2	87.9	(0.84)
Recordati Industria Chimica e Farmaceutica	BIT:REC	34.68	1,554.1	576.3	1.42
Shire plc	LSE:SHP	58.25	15,701.8	6,618.4	2.48
UCB SA	ENXTBR:UCB	81.63	5,330.8	1,663.7	3.77
Bausch Health Companies Inc.	NYSE:BHC	18.47	8,422.0	3,343.0	(2.08)

Company	Ticker	Enterprise Value	EV / Sales	EV / EBITDA	P / E
Allergan plc	NYSE:AGN	\$67,455.1	4.2x	9.1x	NM
Almirall, S.A.	BME:ALM	3,221.9	3.9x	25.8x	NM
ADVANZ PHARMA Corp.	TSX:ADVZ.U	2,071.9	3.6x	8.1x	NM
Assertio Therapeutics, Inc.	NasdaqGS:ASRT	694.4	1.9x	3.8x	NM
Indivior PLC	LSE:INDV	471.1	0.5x	1.3x	4.6x
Ipsen S.A.	ENXTPA:IPN	11,106.3	4.4x	15.8x	37.9x
Jazz Pharmaceuticals plc	NasdaqGS:JAZZ	8,005.3	4.3x	8.9x	22.7x
H. Lundbeck A/S	CPSE:LUN	7,875.0	2.8x	7.5x	21.2x
Horizon Pharma Public Limited Company	NasdaqGS:HZNP	4,359.2	3.9x	NM	NM
Recordati Industria Chimica e Farmaceutica	BIT:REC	7,767.4	5.0x	13.5x	24.4x
Shire plc	LSE:SHP	68,175.4	4.3x	10.3x	23.5x
UCB SA	ENXTBR:UCB	16,104.0	3.0x	9.7x	21.6x
Bausch Health Companies Inc.	NYSE:BHC	30,218.0	3.6x	9.0x	NM

Notes:	Median	\$7,875.0	3.9x	9.1x	22.7x
NA - Not Available	Mean	17,501.9	3.5x	10.2x	22.3x
NM - Not Meaningful	Min	471.1	0.5x	1.3x	4.6x
	Max	68,175.4	5.0x	25.8x	37.9x

# Transaction Comps – Branded Specialty Pharma

## Branded Specialty Pharma Transaction Comps

USD in millions

Announced Date	Target	Buyer	Geographic Location	Enterprise Value	LTM Revenue	LTM EBITDA	EV / LTM Revenue	EV / LTM EBITDA
Oct-18	Laboratorios Vencofarma	Dechra Pharmaceuticals	Brazil	\$49.7	\$19.6	NA	2.8x	NA
Sep-18	Midatech Pharma	Barings	United Kingdom	19.0	9.1	NA	2.1x	NA
Oct-18	Hovid	TAEL Pantaleon	Malaysia	92.8	53.2	\$6.0	1.8x	15.9x
Jun-18	Prialt from Jazz Pharmaceuticals	TerSera Therapeutics	USA	80.0	27.0	NA	3.0x	NA
Apr-18	Shire	Takeda	Ireland	81,348.8	15,354.0	6,449.9	5.3x	12.6x
Apr-18	Oncology Business from Shire	Servier Pharmaceuticals	Ireland	2,400.0	262.0	NA	9.2x	NA
Apr-18	Merck Limited	Proctor & Gamble India	Thailand	324.3	180.7	26.4	1.8x	12.5x
Mar-18	10 brands from Leo Pharma	Karo Pharma	Denmark	317.0	85.5	NA	3.8x	NA
Dec-17	4 brands from AstraZeneca	ANI Pharmaceuticals	USA	46.5	19.0	NA	2.4x	NA
Sep-17	JCR Pharmaceuticals	MediPal	Japan	839.2	166.2	36.2	5.0x	23.2x

Notes:

NA - Not Available

NM - Not Meaningful

<b>Median</b>	\$204.9	\$69.4	\$31.3	2.9x	14.3x
<b>Mean</b>	8,551.7	1,617.6	1,629.6	3.7x	16.1x
<b>Min</b>	19.0	9.1	6.0	1.8x	12.5x
<b>Max</b>	81,348.8	15,354.0	6,449.9	9.2x	23.2x

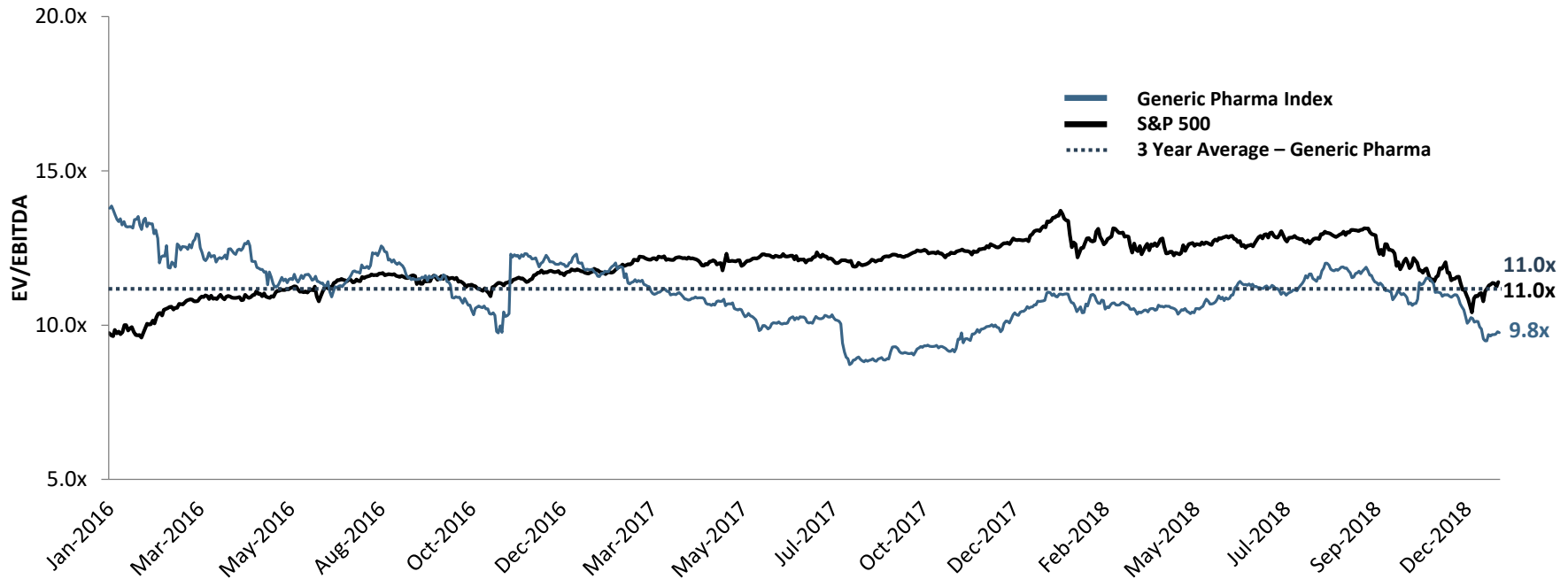
# Generic Pharma Recap

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- Multiples in the Generic Pharma industry remain depressed from their steep decline in 2015 and from continued price deflation
- The Dec. 31, 2018 TEV/EBITDA multiple for the Generic Pharma sector was **9.8x LTM EBITDA**
  - **11% discount to the broader market** and **below its three year average of 11.0x**
- Bourne Partners sees this as a bottom in the cycle and views the current position as a good time to buy
  - Many generic CEOs in our network believe some pricing power will return in the near term, which should provide tailwinds to push the industry up going forward

# Trading History (3 Years) – Generic Pharma

## Generic Pharma Valuations



- The Generic Pharma Index' Year-End TEV/EBITDA multiple: **9.8x**
- Three Year Average TEV/EBITDA multiple for the Generic Pharma Index: **11.0x**

# Trading Comps – Generic Pharma

## Generic Pharma Trading Comps

USD in millions, except for per-share amounts

Company	Ticker	Share Price	LTM Sales	LTM EBITDA	LTM EPS
Akorn, Inc.	NasdaqGS:AKRX	\$3.39	\$726.7	\$13.9	\$0.35
Amphastar Pharmaceuticals, Inc.	NasdaqGS:AMPH	19.90	265.4	4.2	(0.01)
Hikma Pharmaceuticals PLC	LSE:HIK	21.87	2,030.0	498.0	0.72
Lannett Company, Inc.	NYSE:LCI	4.96	684.7	226.1	1.69
Lupin Limited	BSE:500257	12.15	2,175.5	365.9	0.41
Mylan N.V.	NasdaqGS:MYL	27.40	11,594.1	3,776.6	1.55
Nichi-Iko Pharmaceutical Co., Ltd.	TSE:4541	14.68	1,346.1	190.3	1.33
Perrigo Company plc	NYSE:PRGO	38.75	4,819.6	991.8	2.33
Sun Pharmaceutical Industries Limited	NSEI:SUNPHARMA	6.19	3,820.8	862.5	0.14
Taro Pharmaceutical Industries Ltd.	NYSE:TARO	84.64	644.3	293.9	4.61
Teva Pharmaceutical Industries Limited	NYSE:TEVA	15.42	19,693.0	5,201.0	2.10

Company	Ticker	Enterprise Value	EV / Sales	EV / EBITDA	P / E
Akorn, Inc.	NasdaqGS:AKRX	\$969.2	1.3x	NM	9.7x
Amphastar Pharmaceuticals, Inc.	NasdaqGS:AMPH	897.0	3.4x	NM	NM
Hikma Pharmaceuticals PLC	LSE:HIK	5,759.9	2.8x	11.6x	30.5x
Lannett Company, Inc.	NYSE:LCI	869.9	1.3x	3.8x	2.9x
Lupin Limited	BSE:500257	6,240.3	2.9x	17.1x	29.5x
Mylan N.V.	NasdaqGS:MYL	28,055.7	2.4x	7.4x	17.6x
Nichi-Iko Pharmaceutical Co., Ltd.	TSE:4541	1,755.5	1.3x	9.2x	11.1x
Perrigo Company plc	NYSE:PRGO	8,078.4	1.7x	8.1x	16.6x
Sun Pharmaceutical Industries Limited	NSEI:SUNPHARMA	14,251.4	3.7x	16.5x	42.8x
Taro Pharmaceutical Industries Ltd.	NYSE:TARO	1,880.3	2.9x	6.4x	18.4x
Teva Pharmaceutical Industries Limited	NYSE:TEVA	44,412.0	2.3x	8.5x	7.3x

Notes:

NA - Not Available

NM - Not Meaningful

Median	\$5,759.9	2.4x	8.5x	17.1x
Mean	10,288.1	2.4x	9.9x	18.6x
Min	869.9	1.3x	3.8x	2.9x
Max	44,412.0	3.7x	17.1x	42.8x

# Transaction Comps – Generic Pharma

Generic Pharma Transaction Comps								
USD in millions								
Announced Date	Target	Buyer	Geographic Location	Enterprise Value	LTM Revenue	LTM EBITDA	EV / LTM Revenue	EV / LTM EBITDA
Sep-18	Derm and Oral Solids from Sandoz	Aurobindo	USA	\$1,000.0	\$1,200.0	NA	0.8x	NA
Sep-18	QECS Pharmaceutical	Jolly Pharmaceutical	NA	58.3	19.6	NA	3.1x	NA
Jul-18	Subsidiaries from Apotex	Agile Pharma	Canada	86.4	163.4	NA	0.6x	NA
Jun-18	Chase Sun Pharmaceutical	Beijing GTJA	China	1,631.6	574.7	\$128.4	2.9x	13.0x
Jun-18	Zentiva from Sanofi	Advent International	France	2,201.9	880.7	179.6	2.5x	12.3x
Apr-18	Bremer Pharma	Alivira Animal Health	Germany	2.8	8.3	NA	0.3x	NA
Mar-18	Elmed Eisai	Nichi-Iko	Japan	160.1	251.4	NA	0.6x	NA
Nov-17	Subsidiaries from Strides	Eris Lifesciences	India	77.0	28.0	NA	2.8x	NA
Jul-17	STADA	Bain Capital	Germany	6,264.9	2,564.5	472.3	2.3x	12.6x
Apr-17	Upsher-Smith Generic Business	Sawai Pharmaceuticals	USA	1,050.0	NA	NA	NA	NA

Notes:

NA - Not Available

NM - Not Meaningful

<b>Median</b>	\$580.1	\$251.4	\$179.6	<b>2.3x</b>	<b>12.6x</b>
<b>Mean</b>	1,253.3	632.3	260.1	1.8x	12.6x
<b>Min</b>	2.8	8.3	128.4	0.3x	12.3x
<b>Max</b>	6,264.9	2,564.5	472.3	3.1x	13.0x

Consumer Health

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BOURNE PARTNERS



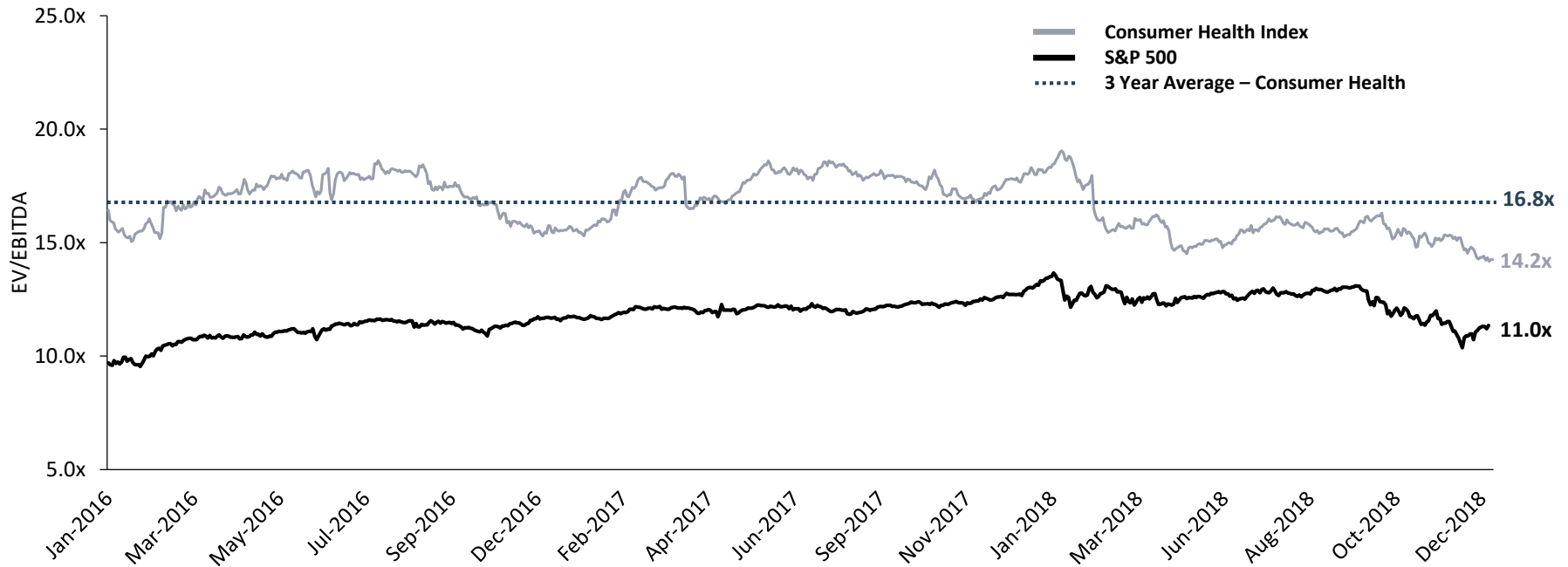
# Consumer Health Recap

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- The Consumer Health market has been on a steady decline from its three year high of 19.0x in January 2018 but remains strong relative to the S&P 500
- The Dec. 31, 2018 TEV/EBITDA multiple for the Consumer Health sector was **14.2x LTM EBITDA**
  - **29% premium to the broader market** but **below its three year average of 16.8x**
- 2018 saw a handful of ventures within the Consumer Health space, specifically for Big Pharma, that showed a divergence on how large pharma companies are viewing the sector
  - In March we saw GSK buy out Novartis' remaining stake in GSK Consumer Health and later ink a JV with Pfizer Consumer Health to build an industry titan, showing GSK's and Pfizer's continued focus on this piece of the market
  - In December Taisho Pharmaceutical Holdings signed a deal to buy Bristol-Myers Squibb's UPSA Consumer Healthcare unit, showing BMS' lack of focus on the sector moving forward
- Bourne partners expects this sector to remain strong for the foreseeable future

# Trading History (3 Years) – Consumer Health

## Consumer Health Valuations



- The Consumer Health Index' Year-End TEV/EBITDA multiple: **14.2x**
- Three Year Average TEV/EBITDA multiple for the Consumer Health Index: **16.8x**

# Trading Comps – Consumer Health

## Consumer Health Trading Comps

USD in millions, except for per-share amounts

Company	Ticker	Share Price	LTM Sales	LTM EBITDA	LTM EPS
Blackmores Limited	ASX:BKL	\$85.99	\$450.5	\$86.7	\$2.81
Boiron SA	ENXTPA:BOI	56.05	715.7	165.3	4.87
Church & Dwight Co., Inc.	NYSE:CHD	65.76	4,104.6	952.2	1.83
Medifast, Inc.	NYSE:MED	125.02	433.2	63.3	2.11
Nature's Sunshine Products, Inc.	NasdaqCM:NATR	8.15	355.7	16.6	0.19
Nu Skin Enterprises, Inc.	NYSE:NUS	61.33	2,661.9	403.4	3.14
Prestige Consumer Healthcare Inc.	NYSE:PBH	30.88	1,019.9	342.9	2.55
Reckitt Benckiser Group plc	LSE:RB.	76.64	16,712.8	4,758.1	3.48

Company	Ticker	Enterprise Value	EV / Sales	EV / EBITDA	P / E
Blackmores Limited	ASX:BKL	\$1,523.3	3.4x	17.6x	30.6x
Boiron SA	ENXTPA:BOI	779.7	1.1x	4.7x	11.5x
Church & Dwight Co., Inc.	NYSE:CHD	18,108.9	4.4x	19.0x	36.0x
Medifast, Inc.	NYSE:MED	1,392.6	3.2x	22.0x	59.1x
Nature's Sunshine Products, Inc.	NasdaqCM:NATR	112.0	0.3x	6.7x	41.8x
Nu Skin Enterprises, Inc.	NYSE:NUS	3,453.6	1.3x	8.6x	19.5x
Prestige Consumer Healthcare Inc.	NYSE:PBH	3,456.6	3.4x	10.1x	12.1x
Reckitt Benckiser Group plc	LSE:RB.	68,430.4	4.1x	14.4x	22.0x

Notes:

NA - Not Available

NM - Not Meaningful

<b>Median</b>	<b>\$2,488.4</b>	<b>3.3x</b>	<b>12.2x</b>	<b>26.3x</b>
<b>Mean</b>	12,157.1	2.6x	12.9x	29.1x
<b>Min</b>	112.0	0.3x	4.7x	11.5x
<b>Max</b>	68,430.4	4.4x	22.0x	59.1x

# Transaction Comps – Consumer Health

Consumer Health Transaction Comps								
USD in millions								
Announced Date	Target	Buyer	Geographic Location	Enterprise Value	LTM Revenue	LTM EBITDA	EV / LTM Revenue	EV / LTM EBITDA
18-Dec *	Bistol-Myers Squibb's UPSA Consumer Health	Taisho Pharmaceutical Holdings Co., Ltd.	France	\$1,600.0	NA	NA	NA	NA
18-Apr	Humco Holding Group, Inc.	Fagron Group BV	USA	47.5	\$21.6	NA	2.2x	NA
18-Mar	Novartis Remaining Stake in GSK Consumer Healthcare	GlaxoSmithKline plc	UK	35,665.9	9,907.2	NA	3.6x	NA
18-Mar	Matrixx Initiatives, Inc.	Gryphon Investors, Inc.	USA	NA	NA	NA	NA	NA
17-Nov	Plan B and other Women's Health Brands	Foundation Consumer Healthcare	USA	675.0	140.0	NA	4.8x	NA
17-Sep	Wellspring Pharmaceutical Corporation	Audax Group, Inc.	USA	NA	NA	NA	NA	NA
17-Feb	Anusol & Rectinol (J&J Brands)	Church & Dwight Co., Inc.	Canada	130.0	24.0	NA	5.4x	NA
17-Jan	Viactiv Holdings, LLC	Adare Pharmaceuticals	USA	NA	NA	NA	NA	NA
17-Jan	Cold-Eeze®	Mylan (Meda Consumer Healthcare)	USA	50.0	19.1	NA	2.6x	NA
16-Jan	C.B. Fleet Company	Prestige Consumer Healthcare	USA	825.0	205.0	NA	4.0x	NA
16-May	Nutraceutixx Inc.	The Clorox Company	USA	107.5	35.7	\$8.6	3.0x	12.5x

Notes:

NA - Not Available

NM - Not Meaningful

Median	\$402.5	\$35.7	NM	4.0x	NM
Mean	4,887.6	1,478.9	NM	4.0x	NM
Min	47.5	19.1	NM	2.6x	NM
Max	35,665.9	9,907.2	NM	5.4x	NM

Source: CapitalIQ Dec. 31, 2018

\* Deal announced but not closed