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	Market	Da	ta				
Price			17.02				
Diluted Shares (M)			166.8				
Market Cap (M)				2710.9			
Cash & Cash Equivalents (M)				684.			
Cash from Stock	Options			0			
Debt				1141			
Enterprise Value				3167.6			
52 Week High				39.49			
52 Week Low				12.86			
Beta					1.51		
FCF (LTM)							
Year End	2013		2014		YTD		
Revenue (M)	\$ 74,016.00	\$:	296,955.00	\$	512,506.00		
% YoY Growth	292.8%		301.2%				
EBITDA	\$ (28,530.00)	\$	38,716.00	\$	142,687.00		
% YoY Growth	58.5%		235.7%				
EBIT	\$ (42,854.00)	\$	(8,491.00)	\$	17,323.00		
% YoY Growth	45.7%		80.2%				
EPS	\$ (2.34)	\$	(3.15)	\$	0.10		
% YoY Growth	-3.5%		-34.6%				
EV/Sales (TTM)				5.14			
EV/EBITDA (TTM)				27.86			

#### **Company Overview**

Horizon Pharma is a specialty biopharmaceutical company which markets a portfolio of nine medicines in its Primary Care, Specialty and Orphan businesses. The company is based in Dublin, Ireland.

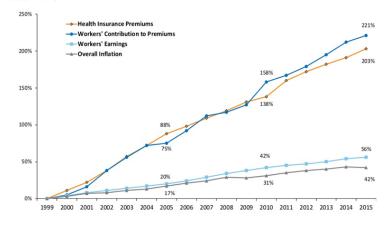
#### **Thesis**

Horizon Pharma runs an unsustainable business model dependent on their ability to significantly hike prices and regular M&A activity. Management has set growth targets for 2020 that are ambitious by any measure, but unlikely given increased industry scrutiny, poor product portfolio and management's dubious history. Shareholder value is nonexistent, as EBITDA growth is used as collateral for issuing more debt and cumulative free cash flow, when you accept that acquisitions are capital expenditures for this company, is well in the negative.

#### **Industry**

**Drug prices are drawing more scrutiny.** Healthcare costs, on average, have been growing at a clip 4x greater than wage growth between 1999-2015. From 2010-2014, the wholesale price for thirty of the top-selling U.S. drugs increased 76%. This gravity-defying trajectory is reminiscent of a stock bubble.

### Cumulative Increases in Health Insurance Premiums, Workers' Contributions to Premiums, Inflation, and Workers' Earnings, 1999-2015



Just as stock prices cannot increase boundlessly, drug price growth cannot continue at its current rate. Someone, be it the patient, the insurer or the government, is footing the unsustainably expanding bill. The shift towards high deductible health plans (HDHPs) encouraged under the Affordable Care Act, places the first dollar cost of healthcare expenses on the patient, promoting more cost conscious consumer decisions.

On the other end, health insurers such as UnitedHealth and Bluecross Blueshield have recorded two straight years of losses on the millions of policyholders signed up through the ACA, placing mounting pressure on them to stem healthcare cost inflation as a way to offer affordable premiums profitably. Against this backdrop, the antics of Martin Shkreli and the stock market popularity of Valeant Pharmaceuticals has drawn attention to a subsector of the pharmaceutical industry: the serial acquirers. These companies do little of the R&D that the pharmaceutical industry uses to justify prices (Horizon Pharma's R&D accounts for just over 5% of sales, versus 17% for Pfizer). Horizon has begun to experience pushback against its business model. Express Scripts and CVS placed Horizon's two biggest selling drugs, Vimovo and Duexis, on their exclusion lists in 2015. In November, Express Scripts cut ties with Linden Care LLC after it was found to be dispensing a substantial portion of its medications from Horizon Pharma. It is likely that these headwinds will continue. The House Oversight and Government Reform Committee held a hearing on drug prices on February 4th and the election of a new president may put further political pressure on pricing practices.

The serial acquirers are playing the hot potato game. Serial acquirers such as Horizon are dependent on being able to significantly raise the price of drugs that they have acquired to cover the cost of the acquisition. Some, such as Horizon's latest acquisition, Crealta, do so with the intention of achieving a level of profitability so that they themselves may be acquired. Each time a drug is passed along in this hot potato chain its prices are raised, boosting its revenue and increasing its acquisition price tag. Horizon is the 3rd or 4th link in the hot potato games of many of its individual products, meaning that the cost of acquisition is at its greatest while the room to increase price is at its lowest, depending on the necessity of the drug, availability of substitutes and pushback from patients, doctors, insurers and the public. Looking at the company's cumulative free cash flow (defined as operating cash flow less acquisitions less purchase of PP&E) since 2012 illustrates how much ground they have to cover before they breakeven (please see Appendix item A)

#### **Company**

**Product portfolio is questionable.** Item B in the appendix contains a list of the company's current medicines, including the Crealta acquisition. Duexis, Horizon's largest earner, is actually a combination of two common generics, ibuprofen and famotidine (also known as Pepcid), but with a price 50x greater than the two generics. Vimovo, the second largest revenue stream, is a similar combo drug. Kyle Bass, founder and managing partner of Hayman Capital Management L.P., issued a legal challenge against Vimovo's patent in May 2015, noting in a <u>Harvest post</u> that the patent:

"... allows Horizon to exploit the patent system to prevent cheaper generic drugs from entering the marketplace... Vimovo is a poster child for this type of abuse of the U.S. patent and healthcare system—and the '907 patent is tailor-made for inter partes review procedures Congress established to permit efficient challenges of weak patents."

Michael Ide, in his coverage of Bass's challenge, succinctly notes:

"It's interesting that even if Horizon manages to defend its patent on Vimovo, its huge profits depend almost entirely on patient ignorance. While another company can't put naproxen and esomeprazole magnesium together in a single pill, a doctor can still just prescribe them separately to save his or her patients money. Since the generic drugs are available without a prescription, a kindly pharmacist could also explain the situation to the customer and sell the OTC versions instead."

These are not characteristics of a product with the kind of healthy moat that equity analysts associate with pharmaceutical companies. Though Horizon has been able to increase Vimovo's price from \$2 per pill to more than \$28 per pill, it has not been without consequences. Being placed on Express Scripts and CVS's exclusion lists has had an impact on prescription volume, particularly for Vimovo, which posted a 2% decline in YoY prescription growth versus the 18% YoY growth it posted a quarter earlier, before the ban went into effect.

Horizon boasts orphan drugs, drugs that treat diseases that affect fewer than 200,000 people and typically have a higher approval rate, as its new avenue for growth, citing higher contribution margin and unavailability of substitutes. Looking at the history of two of their orphan drugs, Krystexxa and Actimmune, should make one pause.

Actimmune was acquired by Intermune in 1998. In 2011, Intermune's CEO was sentenced for false & misleading statement regarding the efficacy of Actimmune as a treatment for idiopathic pulmonary fibrosis. The majority of Actimmune's revenues were for unapproved, off-label use. In 2012, Intermune sold rights to Actimmune to Vidara for \$55 million plus a 2 year royalty stream. First quarter sales of Actimmune were \$4.1 million, down 19.6% YoY.

In 2014, Horizon acquired Vidara for \$660 million.

Krystexxa was originally developed by Savient Pharmaceuticals, selling for over \$30,000 for an entire treatment. Unable to find a large enough market for the drug, Savient went backrupt in 2013 and sold Krystexxa to Crealta, a newly formed entity by private equity firm GTCR, in a bankruptcy action. Crealta raised prices for an entire treatment to \$84,000 and was soon able to cash out for \$510 million when it agreed to be acquired by Horizon.

These histories of acquisitions and bankruptcies begs the question, if these drugs are so promising, why would anyone sell the rights?

Management team does not instill confidence. Prior to Horizon, CEO and director, Timothy Walbert, and Dr. Jeffrey Sherman, EVP and CMO, held similar positions at IDM Pharma beginning in 2007. While they were there, IDM saw two of its drugs rejected, slashed its workforce by 60% and received a delisting notice from NASDAQ before it was acquired at a fire sale price of \$2.64 a share by Takeda Pharmaceuticals in 2009 (Walbert left in mid-2008). Prior to IDM, the two held executive positions in NeoPharm Inc., where Dr. Sherman joined in 2000 and Mr. Walbert in 2006. Neo-Pharm posted operating losses during their tenures and was swallowed in a reverse merger by Insys in 2010, when it was trading at 25 cents on the Pink Sheets quotation service. These are just a few examples. Further exploration of management bios turns up histories of mediocre to failed specialty pharma companies.

Will this time be different? A quick glance at insider trading suggests that Horizon's management does not think so.

Horizon Insider Trades (source: NASDAQ)

	3 MO.	12 MO.
# of Shares Bought	0	10,000
# of Shares Sold	75,385	2,445,198
Total Shares Traded	75,385	2,455,198
Net Activity	(75,385)	(2,435,198)

**Horizon Pharma will not meet its 2020 goals.** In its 2015 Investor's Day presentation, the company promised:

- Organic sales (not including Krystexxa and Migergot) will reach over \$2 billion.
- ♦ Revenue composition will be 60% orphan drugs and 40% primary care/specialty.
- ♦ Adjusted EBITDA margin of 60%, implying over \$1.2B in adjusted EBITDA.

As a reference, Horizon expects 2015 revenues to come in between \$750-\$760 million and adjusted EBITDA between \$350-\$360 million. Revenue composition for Q3 2015 was 29% orphan drugs and 71% primary care/specialty. Managements projections imply an 8.3% CAGR for primary care/specialty and 40.5% CAGR for orphan drugs. Management also assume that Actimmune will receive approval for Friedrich's Ataxia, which would represent an additional \$500m—\$1 billion opportunity.

This is unrealistic. Firstly, Actimmune may not receive approval for FA. As Morgan Stanley analyst David Risinger points out, the Phase 3 STEADFAST trail may fail because the Phase 2 results included only 10 patients, had no control arm and improvement was mostly in upper extremities and there did not appear to be a correlation with frataxin levels. This failure to get approval alone would be a shock to the stock price, as it would remove \$500m—\$1B in future revenues from projections.

Secondly, increased resistance to price hikes from patients, insurers and government will come together with exclusions from the largest pharmacy benefits managers to drag down PC/S sales. Any slacking on the PC/S side will put greater pressure on the orphan drugs (Actimmune & Ravicti) to outperform the already lofty CAGR management has laid out. Assuming Actimmune's shoddy trials in FA are not approved, I project that Ravicti is able to keep up its pace of adding 2-4 new patients per month and Actimmune maintains a similar pace. In order to reach the \$1.2B 2020 sales target (60% of \$2B), Horizon will have to charge about \$582,000 annually per patient. Based on Ravicti's Q3 2015 per patient revenue, they are charging just under \$377,000 per patient. To close the gap, they would need to hike prices 54.5%. If orphan drugs need to pick up slack from falling or flat PC/S sales, that hike is necessarily greater. Yet historically, prices for Actimmune and Ravicti have remained generally stable and there is little to indicate that Horizon can pull off a massive price hike on its already expensive drugs.

#### **Final Comments**

Any slowdown in sales will impede Horizon's ability to execute its acquisition strategy. This is the entire fragility of the serial acquirer business model. Acquire drugs that a succession of owners have not seen enough value in to bother holding onto and hope to generate enough cash flow to lever up and acquire the next cast-off drug. Future growth is used to pay down existing debt and as collateral for new debt. If they are unable to continue to raise prices, as industry pressure and prescription momentum suggest, it directly impacts the amount of debt they will/can take out or shares they will issue to grab the next hot potato—neither of which is favorable to the shareholder. At an extreme point, it threatens their ability to service existing debt. Currently, Horizon's financial situation is not so dire. But it is not as great as management would have you believe—just compare their actual financial statements (Appendix items C&D) to the generously adjusted measures they refer to in presentations and earnings calls. A quick glance at the cash flow statement shows that operating cash flows have only recently turned positive, that generous cash flows from financing is responsible for tipping net change in cash into positive territory. A glance at the shareholders' equity portion of the balance sheet shows what shareholders actually own. Growth in shareholders' equity has largely come from more share issuance. Backed by a mediocre product portfolio, industry headwinds, dubious management history and heavy insider selling, there is little actual value for shareholders.

#### **Short Sell Timing**

Timing is the most difficult aspect of short-selling. The market can remain irrational longer than you can remain solvent. Acquisition is not a likely possibility for Horizon until after its shares have tanked. The acquisitions of NeoPharm, IDM Pharma and Krystexxa indicate that acquirers prefer to wait until the acquisition is in serious financial distress so that they can acquire the assets at the cheapest price. The early warning signs are there—management selling, an unsustainable business model, souring industry conditions—but Horizon has not reached the tipping point that will cause its stock to crumble just yet. Possible catalysts that will begin that descent are if Bass's challenge removes Vimovo's patent protection, Actimmune fails to get approval for FA, growth in PC/S sales slows to a point that management's 2020 goals for the segment are no longer feasible or credit market conditions sour, reducing the amount of debt Horizon is able to use for acquisitions or imposing more restrictive covenants.

### **Appendix**

#### A. Cumulative adjusted levered free cash flow since 2012

USD in thousands, except per share and per unit data	Year Ended December 31,				2015	
	2012	2013	2014	Q1	Q2	Q3
Free Cash Flow						
Operating Cash Flow	(76,641.0)	(54,287.0)	27,549.0	(70,739.0)	41,584.0	88,383.0
- Acquisitions	-	(35,000.0)	(224,220.0)	-	(1,022,361.0)	(71,813.0)
-Purchase of PP&E	(1,336.0)	(1,198.0)	(3,500.0)	(1,577.0)	(704.0)	(2,233.0)
Levered Free Cash Flow	(77,977.0)	(90,485.0)	(200,171.0)	(72,316.0)	(981,481.0)	14,337.0
Cumulative FCF since 2012	(77,977.0)	(168,462.0)	(368,633.0)	(440,949.0)	(1,422,430.0)	(1,408,093.0)

#### **B.** Horizon's Product Portfolio

Drug	Chemical	Uses
Duexis	Ibuprofen & famotidine	RA, OA
Vimovo	Esomeprazole & naproxen	RA, OA, AS
Pennsaid 2%	Diclofenac	OA pain in the knee
Rayos/ Lodotra	Prednisone	RA, PR
Actimmune	Interferon gamma-1b	CGD, SMO
Ravicti	Glycerol phenylbutyrate	UCD
Buphenyl	Sodium phenylbutyrate	UCD
Krystexxa	Pegloticase	Severe, chronic gout
Migergot	Ergotamine tartrate & caffeine	Migraines

### **Appendix**

#### C. EBITDA and Adjusted EBITDA Reconciliation from Q3 2015 Presentation

	Three Months Ended Sept. 30,				
	2015			2014	
	(Unaudited)				
EBITDA and Adjusted EBITDA:					
GAAP Net Income (Loss)	\$	3,277	\$	2,063	
Depreciation		1,578		413	
Amortization and accretion:					
Intangible amortization expense		41,707		6,413	
Accretion of royalty liabilities		6,551		2,664	
Amortization of deferred revenue		(490)		(156)	
Amortizaton of inventory step-up adjustment		4,140		1,540	
Interest expense, net (including amortization of					
debt discount and deferred financing costs)		20,300		5,194	
Expense (benefit) for income taxes		21,979		(3,042)	
EBITDA	\$	99,042	\$	15,089	
Non-GAAP adjustments:					
Remeasurement of royalties for products acquired through business combinations		-		-	
Acquisition related costs		14,498		31,477	
Loss on derivative revaluation		-		-	
Loss on induced conversion and debt extinguishment		-		-	
Bargain purchase gain		-		(22,171)	
Share-based compensation		26,457		4,024	
Royalties for products acquired through business combinations (1)		(8,854)		(6,366)	
Total of Non-GAAP adjustments	\$	32,101	\$	6,964	
Adjusted EBITDA	\$	131,143	\$	22,053	

### D. Cash Flow from Operations and Adjusted (Non-GAAP) Cash Flow from Operations Reconciliation from Q2 2015 Presentation

Three Months End			Ended Ju	led June 30,	
	2	2015		2014	
Non-GAAP Cash Provided By Operating Activities:					
GAAP cash (used in) provided by operating activities	\$	41,584	\$	16,761	
Cash payments of Vidara acquistion costs		11,272		3,369	
Cash payments for induced debt conversion		4,776		-	
Cash payment for debt extinguishment		45,367		-	
Payment of original issue discount on debt extinguishment		3,000		-	
Cash payments of Hyperion acquistion costs		23,596		-	
Non-GAAP cash provided by operating activities	\$	129,595	\$	20,130	