

19 November 2013 | 13 pages

Pharmaceuticals  
North America | United States

# Shire Pharmaceuticals (SHP.L)

## Additional Thoughts on ViroPharma Acquisition

- **We estimate 7%-12% accretion in 2014-2016 from ViroPharma acquisition** – We view Shire's recently announced acquisition of VPHM as a strategically sound deal that will augment Shire's growth profile over the near to medium term. While we acknowledge that the transaction did not come cheap for Shire, VPHM fits well into Shire's orphan disease franchise, and we believe that the operating synergies announced (\$150mn) could be conservative. In addition, revenue synergies from the transaction are likely, and VPHM will benefit from Shire's advantageous tax structure. We have updated our model to reflect the impact of the announced transaction. We currently forecast 5-year sales and earnings CAGRS of 8.4% and 13.8% for Shire, vs. 6.0% and 9.9% for the peer group.
- **Key concern is incremental competition to Cinryze from 2016** – We view competition from subcutaneous prophylactic treatments for HAE as the key competitive threat to Cinryze over the medium term (Cinryze requires IV infusion twice weekly). Behring is expected to commence Phase III development of its subcutaneous formulation of Berinert (a C1 esterase inhibitor, similar to Cinryze) in the very near future, which could reach the market by 2016. VPHM is planning on progressing with its low volume subcu formulation of Cinryze, however the development path remains unclear due to a higher incidence of non-neutralizing antibodies associated with the hyaluronic acid found in the higher volume formulation subcu Phase II trial.
- **Warning letter not trivial, but likely manageable, in our view** – While the issues raised in the FDA's recent warning letter of the Cinryze manufacturing facility, particularly lack of bioburden testing, are not trivial, we anticipate that Shire will act aggressively to resolve the issues expeditiously. Cinryze's status as an orphan drug, and the primary prophylactic treatment for HAE, likely precludes more drastic measures by the FDA, such as a consent decree/ an import ban, in our view.
- **VPHM to benefit from Shire's advantageous tax structure** – In addition to the revenue and cost synergies associated with the transaction, Shire shareholders will benefit from the incorporation of VPHM into Shire's low-tax infrastructure (we estimate an effective tax rate of 18-19% over the next 5 years). We estimate that this is worth c.2% to our DCF value of Shire.
- **Transaction leaves room for additional BD activities** – Business development will continue to be a focus for Shire going forward, we believe. If the data from the Lifitegrast OPUS-2 trial are positive, we anticipate that incremental transactions could focus on augmenting the company's presence in the ophthalmology space.

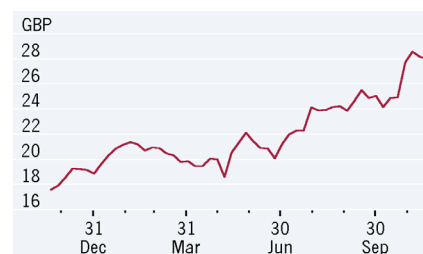
EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2012A	0.49A	0.56A	0.45A	0.53A	2.03A	2.04A
2013E	0.54A	0.60A	0.59A	0.72E	2.45E	2.38E
Previous	0.54A	0.60A	0.59A	0.74E	2.47E	na
2014E	na	na	na	na	3.12E	2.86E
Previous	na	na	na	na	2.92E	na
2015E	na	na	na	na	3.37E	3.16E
Previous	na	na	na	na	3.01E	na

Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

### Estimate Change

<b>Buy</b>	<b>1</b>
Price (19 Nov 13)	£28.00
Target price	£32.00
Expected share price return	14.3%
Expected dividend yield	0.4%
<b>Expected total return</b>	<b>14.7%</b>
Market Cap	£15,507M
	US\$24,982M

### Price Performance (RIC: SHP.L, BB: SHP LN)



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### See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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SHP.L: Fiscal year end 31-Dec						Price: £28.00; TP: £32.00; Market Cap: £15,507m; Recomm: Buy					
Profit & Loss (US\$m)	2011	2012	2013E	2014E	2015E	Valuation ratios	2011	2012	2013E	2014E	2015E
Sales revenue	4,263	4,681	4,955	5,716	6,114	PE (x)	25.3	22.2	18.4	14.4	13.4
Cost of sales	-588	-645	-643	-802	-958	PB (x)	7.8	6.5	5.1	11.5	6.4
Gross profit	3,676	4,036	4,312	4,913	5,156	EV/EBITDA (x)	18.1	19.9	15.1	10.3	9.4
Gross Margin (%)	86.2	86.2	87.0	86.0	84.3	FCF yield (%)	3.4	4.6	4.4	6.3	7.1
<b>EBITDA (Adj)</b>	<b>1,404</b>	<b>1,258</b>	<b>1,590</b>	<b>2,394</b>	<b>2,667</b>	Dividend yield (%)	0.3	0.1	0.4	0.7	0.8
EBITDA Margin (Adj) (%)	32.9	26.9	32.1	41.9	43.6	Payout ratio (%)	8	3	7	10	10
Depreciation	-295	-309	-123	-135	-147	ROE (%)	30.7	21.3	23.2	48.5	63.7
Amortisation	0	0	-152	-154	-156	<b>Cashflow (US\$m)</b>	<b>2011</b>	<b>2012</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>
<b>EBIT (Adj)</b>	<b>1,110</b>	<b>949</b>	<b>1,314</b>	<b>2,105</b>	<b>2,364</b>	EBITDA	1,404	1,258	1,590	2,394	2,667
EBIT Margin (Adj) (%)	26.0	20.3	26.5	36.8	38.7	Working capital	-160	104	29	-117	-77
Net interest	-37	-35	-51	-44	-34	Other	-171	21	-285	-382	-416
Associates	3	1	1	1	1	<b>Operating cashflow</b>	<b>1,074</b>	<b>1,383</b>	<b>1,333</b>	<b>1,895</b>	<b>2,174</b>
Non-op/Except	18	-3	1	1	1	Capex	-200	-185	-194	-195	-196
<b>Pre-tax profit</b>	<b>1,093</b>	<b>912</b>	<b>1,265</b>	<b>2,063</b>	<b>2,333</b>	Net acq/disposals	-616	-90	0	0	0
Tax	-228	-167	-259	-363	-409	Other	6	4	0	0	0
Extraord./Min.Int./Pref.div.	0	0	0	0	0	<b>Investing cashflow</b>	<b>-809</b>	<b>-271</b>	<b>-194</b>	<b>-195</b>	<b>-196</b>
<b>Reported net profit</b>	<b>865</b>	<b>745</b>	<b>1,006</b>	<b>1,700</b>	<b>1,923</b>	Dividends paid	-74	-86	-108	-190	-212
Net Margin (%)	20.3	15.9	20.3	29.7	31.5	<b>Financing cashflow</b>	<b>-195</b>	<b>-244</b>	<b>38</b>	<b>1,310</b>	<b>-612</b>
Core NPAT	1,028	1,176	1,415	1,862	2,084	<b>Net change in cash</b>	<b>70</b>	<b>862</b>	<b>1,176</b>	<b>3,010</b>	<b>1,366</b>
<b>Per share data</b>	<b>2011</b>	<b>2012</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>	<b>Free cashflow to s/holders</b>	<b>874</b>	<b>1,198</b>	<b>1,139</b>	<b>1,700</b>	<b>1,978</b>
Reported EPS (\$)	1.51	1.31	1.76	2.85	3.11						
Core EPS (\$)	1.78	2.03	2.45	3.12	3.37						
DPS (\$)	0.15	0.06	0.18	0.31	0.34						
CFPS (\$)	1.86	2.38	2.31	3.18	3.52						
FCFPS (\$)	1.53	2.07	1.98	2.86	3.20						
BVPS (\$)	5.78	6.92	8.81	3.93	7.03						
Wtd avg ord shares (m)	551	555	552	552	552						
Wtd avg diluted shares (m)	595	594	589	606	618						
<b>Growth rates</b>	<b>2011</b>	<b>2012</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>						
Sales revenue (%)	22.8	9.8	5.8	15.4	7.0						
EBIT (Adj) (%)	39.7	-14.4	38.5	60.2	12.3						
Core NPAT (%)	28.8	14.5	20.3	31.6	11.9						
Core EPS (%)	26.5	14.2	20.5	27.3	8.0						
<b>Balance Sheet (US\$m)</b>	<b>2011</b>	<b>2012</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>						
Cash & cash equiv.	641	1,499	2,676	1,486	2,852						
Accounts receivables	845	824	882	942	964						
Inventory	340	437	399	508	610						
Net fixed & other tangibles	1,057	1,034	1,060	1,075	1,079						
Goodwill & intangibles	3,086	3,033	2,925	2,815	2,705						
Financial & other assets	412	490	490	490	490						
<b>Total assets</b>	<b>6,380</b>	<b>7,317</b>	<b>8,432</b>	<b>7,317</b>	<b>8,700</b>						
Accounts payable	117	128	136	145	148						
Short-term debt	1,100	0	0	0	0						
Long-term debt	0	1,100	1,100	2,600	2,200						
Provisions & other liab	1,978	2,280	2,344	2,410	2,478						
<b>Total liabilities</b>	<b>3,195</b>	<b>3,508</b>	<b>3,580</b>	<b>5,155</b>	<b>4,826</b>						
Shareholders' equity	3,185	3,809	4,853	2,162	3,874						
Minority interests	0	0	0	0	0						
<b>Total equity</b>	<b>3,185</b>	<b>3,809</b>	<b>4,853</b>	<b>2,162</b>	<b>3,874</b>						
<b>Net debt</b>	<b>459</b>	<b>-399</b>	<b>-1,576</b>	<b>1,114</b>	<b>-652</b>						
Net debt to equity (%)	14.4	-10.5	-32.5	51.5	-16.8						

For definitions of the items in this table, please click [here](#).

Figure 1. Shire sales and EPS CAGRs are ahead of its U.S. spec pharma peers while P/E multiple is roughly in line

Company	Current price	Market cap (\$mn)	P/E		EV/EBITDA		2013E-16E CAGR		2013E-18E CAGR		Div. yield	FCF yield
			2013E	2014E	2013E	2014E	Sales	EPS	Sales	EPS		
US Specialty Pharma												
Allergan	\$98.10	\$30,014	20.6	17.8	13.5	11.7	6.3%	10.1%	6.4%	10.0%	0.2%	3.7%
Endo Health Solutions	\$64.14	\$7,333	13.3	14.7	14.1	9.7	1.0%	-1.3%	3.0%	2.6%	0.0%	-0.1%
Forest Labs	\$51.32	\$13,845	52.6	30.5	151.9	31.2	5.2%	31.0%	N/A	N/A	0.0%	0.6%
Shire	£27.96	£15,453	18.4	14.4	20.3	15.8	9.0%	14.1%	8.4%	13.8%	0.4%	4.4%
Valeant	\$110.91	\$37,112	NM	NM	19.6	12.6	N/A	N/A	N/A	N/A	0.0%	1.4%
Zoetis	\$31.42	\$15,730	22.4	19.3	18.3	14.9	6.1%	13.7%	6.2%	13.0%	0.8%	2.3%
US Specialty Pharma (equal wt avg) *			18.7	16.6	17.2	12.9	5.6%	9.1%	6.0%	9.9%	0.3%	2.3%
European Specialty Pharma												
Actelion	SFr. 74.80	SFr. 8,297	25.2	21.5	13.8	13.2	-4.6%	7.1%	-3.9%	8.1%	1.3%	1.4%
Almirall	€ 11.16	€ 1,927	51.0	32.4	23.0	17.7	8.3%	68.4%	7.9%	49.8%	1.1%	4.5%
Grifols	€ 31.94	€ 7,625	27.5	22.7	11.3	9.7	7.8%	18.5%	7.1%	17.2%	0.0%	3.9%
Ipsen	€ 32.97	€ 2,789	17.0	16.1	12.2	11.6	4.7%	6.8%	5.6%	7.8%	2.4%	2.8%
Merck KGaA	€ 124.25	€ 26,978	14.1	13.9	9.6	9.1	-0.7%	2.0%	-0.4%	1.5%	1.4%	7.3%
UCB	€ 49.13	€ 8,794	25.4	21.6	16.2	14.2	6.4%	19.1%	7.1%	18.1%	1.5%	2.4%
EU Specialty Pharma (equal wt avg)			26.7	21.4	14.3	12.6	3.7%	20.3%	3.9%	17.1%	1.3%	3.7%

Source: Citi Research, FactSet.

\* Forest Labs excluded from averages.

Note: Forest estimates are presented on a calendar year basis.

Note: FactSet consensus estimates used for Valeant. Citi estimates used for all other companies.

Source: Citi Research

Figure 2. Shire annual sales model: 2012A – 2018E

USD mlns	2012A	2013E	2014E	2015E	2016E	2017E	2018E
<b>Specialty Pharmaceuticals</b>							
<u>ADHD</u>							
Vyvanse	1,030	1,201	1,359	1,515	1,665	1,781	1,886
Adderall XR	429	371	297	267	267	267	267
Intuniv	288	338	338	152	38	34	31
Equasym	29	30	31	33	34	34	34
Daytrana	-	-	-	-	-	-	-
<b>Total ADHD</b>	<b>1,776</b>	<b>1,940</b>	<b>2,025</b>	<b>1,967</b>	<b>2,004</b>	<b>2,117</b>	<b>2,219</b>
<u>GI</u>							
Lialda/Mezavant	400	530	583	583	542	505	505
Pentasa	266	289	309	294	279	265	252
Resolor	12	15	40	44	46	49	51
<b>Total GI</b>	<b>678</b>	<b>834</b>	<b>933</b>	<b>921</b>	<b>868</b>	<b>818</b>	<b>807</b>
<u>General products</u>							
Fosrenol	172	178	178	178	178	178	178
Xagrid	97	99	94	94	94	94	94
Carbatrol	-	1	1	1	1	1	1
Other products	113	92	96	100	96	92	89
<b>Total general products</b>	<b>382</b>	<b>370</b>	<b>370</b>	<b>374</b>	<b>370</b>	<b>366</b>	<b>362</b>
Pipeline	-	-	14	54	172	370	609
<b>Total specialty pharmaceuticals</b>	<b>2,835</b>	<b>3,145</b>	<b>3,341</b>	<b>3,316</b>	<b>3,414</b>	<b>3,671</b>	<b>3,997</b>
<b>Human Genetic Therapies</b>							
Elaprase	498	539	577	605	636	667	701
Replagal	498	445	445	468	491	516	541
VPRIV	307	341	375	394	413	434	456
Firazyr	116	223	312	359	395	415	435
Pipeline	-	-	-	-	11	33	88
<b>Total HGT</b>	<b>1,418</b>	<b>1,548</b>	<b>1,709</b>	<b>1,826</b>	<b>1,946</b>	<b>2,065</b>	<b>2,221</b>
<b>Regenerative Medicine</b>							
Dermagraft	154	86	91	95	100	105	110
Pipeline	-	-	-	-	-	-	-
<b>Total regenerative medicine</b>	<b>154</b>	<b>86</b>	<b>91</b>	<b>95</b>	<b>100</b>	<b>105</b>	<b>110</b>
<b>Total product sales</b>	<b>4,407</b>	<b>4,779</b>	<b>5,141</b>	<b>5,237</b>	<b>5,460</b>	<b>5,841</b>	<b>6,328</b>
<b>Royalties</b>							
3TC and Zeffix	92	44	35	31	31	31	31
Adderall XR	70	25	15	13	13	13	13
Other	80	82	73	103	73	73	73
<b>Total royalties</b>	<b>242</b>	<b>150</b>	<b>123</b>	<b>148</b>	<b>118</b>	<b>118</b>	<b>118</b>
Other revenues	33	26	26	26	26	26	26
<b>Total Sales</b>	<b>4,681</b>	<b>4,955</b>	<b>5,290</b>	<b>5,411</b>	<b>5,604</b>	<b>5,985</b>	<b>6,472</b>
YOY Growth	9.8%	5.8%	6.8%	2.3%	3.6%	6.8%	8.1%

Source: Company reports and Citi Research

Figure 3. Shire annual P&L statement: 2012A – 2018E

<i>\$ mlns except per share data</i>	2012	2013E	2014E	2015E	2016E	2017E	2018E
<b>Non GAAP</b>							
<b>Total Sales</b>	<b>4,681</b>	<b>4,955</b>	<b>5,716</b>	<b>6,114</b>	<b>6,425</b>	<b>6,866</b>	<b>7,409</b>
<i>YoY growth</i>	9.8%	5.8%	15.4%	7.0%	5.1%	6.9%	7.9%
COGS	(614)	(606)	(772)	(928)	(992)	(1,052)	(1,125)
<i>% of Sales</i>	13.1%	12.2%	13.5%	15.2%	15.4%	15.3%	15.2%
<b>Gross Profit</b>	<b>4,067</b>	<b>4,348</b>	<b>4,943</b>	<b>5,186</b>	<b>5,433</b>	<b>5,815</b>	<b>6,285</b>
<i>Gross Margin</i>	86.9%	87.8%	86.5%	84.8%	84.6%	84.7%	84.8%
SG&A	(1,631)	(1,530)	(1,560)	(1,560)	(1,600)	(1,640)	(1,664)
<i>% of Sales</i>	34.8%	30.9%	27.3%	25.5%	24.9%	23.9%	22.5%
R&D	(849)	(895)	(913)	(885)	(899)	(912)	(935)
<i>% of Sales</i>	18.1%	18.1%	16.0%	14.5%	14.0%	13.3%	12.6%
<b>EBITDA</b>	<b>1,588</b>	<b>1,924</b>	<b>2,470</b>	<b>2,741</b>	<b>2,935</b>	<b>3,263</b>	<b>3,685</b>
<i>EBITDA margin</i>	33.9%	38.8%	43.2%	44.8%	45.7%	47.5%	49.7%
Depreciation	(114)	(123)	(135)	(147)	(158)	(170)	(181)
<b>Operating income</b>	<b>1,474</b>	<b>1,800</b>	<b>2,335</b>	<b>2,594</b>	<b>2,777</b>	<b>3,093</b>	<b>3,504</b>
<i>Operating Margin</i>	31.5%	36.3%	40.9%	42.4%	43.2%	45.1%	47.3%
Interest Income	3	9	9	10	16	23	32
Interest expense	(38)	(61)	(54)	(43)	(35)	(26)	(17)
Other income, net	1	1	1	1	1	1	1
<b>Income before taxes</b>	<b>1,440</b>	<b>1,750</b>	<b>2,292</b>	<b>2,562</b>	<b>2,759</b>	<b>3,092</b>	<b>3,520</b>
Tax	(265)	(337)	(431)	(479)	(510)	(557)	(634)
<i>Non GAAP Tax Rate</i>	18.4%	19.2%	18.8%	18.7%	18.5%	18.0%	18.0%
Equity income	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Loss from discontinued operations	-	-	-	-	-	-	-
Minority Interests	-	-	-	-	-	-	-
<b>Net income attributable to Shire</b>	<b>1,176</b>	<b>1,415</b>	<b>1,862</b>	<b>2,084</b> <b>2,004</b>	<b>2,250</b>	<b>2,536</b>	<b>2,888</b>
Impact of convertible debt, net	31	30	30	-	-	-	-
<b>Numerator for diluted EPS</b>	<b>1,208</b>	<b>1,445</b>	<b>1,892</b>	<b>2,084</b>	<b>2,250</b>	<b>2,536</b>	<b>2,888</b>
Shares Outstanding (basic)	555	552	552	552	552	552	552
Shares Outstanding (diluted)	594	589	606	618	618	618	618
<b>Non GAAP EPS</b>	<b>203.5</b>	<b>245.2</b>	<b>312.3</b>	<b>337.2</b>	<b>364.0</b>	<b>410.4</b>	<b>467.3</b>
<b>Non GAAP EPS per ADS</b>	<b>610.5</b>	<b>735.7</b>	<b>936.8</b>	<b>1,011.7</b>	<b>1,092.1</b>	<b>1,231.3</b>	<b>1,401.9</b>
<i>YoY growth</i>	14.2%	20.5%	27.3%	8.0%	8.0%	12.7%	13.9%

Source: Company reports and Citi Research

Figure 4. Shire annual balance sheet: 2012A – 2018E

\$ mlns	2012A	2013e	2014e	2015e	2016e	2017e	2018e
Cash and cash equivalents	1,482	2,659	1,469	2,835	4,314	6,040	8,071
Restricted cash	17	17	17	17	17	17	17
Marketable securities	-	-	-	-	-	-	-
Accounts receivable	824	882	942	964	998	1,066	1,153
Inventories	437	399	508	610	652	691	740
Deferred tax asset	230	230	230	230	230	230	230
Prepaid expenses and other assets	222	222	222	222	222	222	222
Current Assets from discontinuing operations	-	-	-	-	-	-	-
<b>Total Current Assets</b>	<b>3,212</b>	<b>4,409</b>	<b>3,387</b>	<b>4,877</b>	<b>6,433</b>	<b>8,266</b>	<b>10,432</b>
Investments in Associates	29	29	29	29	29	29	29
Other Investments	10	10	10	10	10	10	10
PPE	956	982	997	1,001	993	973	942
Goodwill	645	645	645	645	645	645	645
Other Intangibles	2,388	2,280	2,171	2,061	1,949	1,837	1,723
Deferred tax asset	47	47	47	47	47	47	47
Other non current assets	32	32	32	32	32	32	32
Long term assets from discontinued operations	-	-	-	-	-	-	-
<b>Total Long Term Assets</b>	<b>4,105</b>	<b>4,024</b>	<b>3,929</b>	<b>3,823</b>	<b>3,703</b>	<b>3,571</b>	<b>3,426</b>
<b>TOTAL ASSETS</b>	<b>7,317</b>	<b>8,432</b>	<b>7,317</b>	<b>8,700</b>	<b>10,137</b>	<b>11,838</b>	<b>13,858</b>
Current Installments of long-term debt	-	-	-	-	-	-	-
Trade Accounts Payable	128	136	145	148	154	164	178
Other Payables	1,373	1,414	1,457	1,500	1,545	1,592	1,639
Other current liabilities	144	144	144	144	144	144	144
<b>Total Current Liabilities</b>	<b>1,646</b>	<b>1,694</b>	<b>1,746</b>	<b>1,793</b>	<b>1,843</b>	<b>1,900</b>	<b>1,961</b>
Long-term debt	1,100	1,100	2,600	2,200	1,700	1,200	700
Deferred Tax Liability	521	536	553	569	586	604	622
Other long-term liabilities	242	249	256	264	272	280	288
<b>Total Long Term Liabilities</b>	<b>1,862</b>	<b>1,885</b>	<b>3,409</b>	<b>3,033</b>	<b>2,558</b>	<b>2,084</b>	<b>1,610</b>
<b>TOTAL LIABILITIES</b>	<b>3,508</b>	<b>3,580</b>	<b>5,155</b>	<b>4,826</b>	<b>4,401</b>	<b>3,984</b>	<b>3,572</b>
Common stock	56	56	56	56	56	56	56
Additional Paid-in capital	2,671	2,671	2,671	2,671	2,671	2,671	2,671
Accumulated other comprehensive losses	87	87	87	87	87	87	87
Retained earnings	996	2,039	(652)	1,060	2,922	5,040	7,473
<b>Total Shareholders' Equity</b>	<b>3,809</b>	<b>4,853</b>	<b>2,162</b>	<b>3,874</b>	<b>5,735</b>	<b>7,854</b>	<b>10,287</b>

Source: Company reports and Citi Research

Figure 5. Shire annual cash flow statement: 2012A – 2018E

\$ mlns	2012A	2013e	2014e	2015e	2016e	2017e	2018e
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>							
Net Income	745	1,006	1,700	1,923	2,091	2,380	2,734
Depreciation	309	123	135	147	158	170	181
Goodwill Amortization	-	-	-	-	-	-	-
Amortization of Other Intangibles	-	152	154	156	158	161	163
Change in deferred tax asset	(58)	16	16	17	17	18	18
Other cash flow	18	7	7	8	8	8	8
<b>Changes in operating assets and liabilities:</b>							
Change in accounts receivable	22	(58)	(60)	(22)	(34)	(68)	(87)
Change in inventory	(88)	38	(109)	(102)	(42)	(39)	(48)
Change in accounts payable	137	49	52	47	50	57	61
<b>Cash flows from operating activities</b>	<b>1,383</b>	<b>1,333</b>	<b>1,895</b>	<b>2,174</b>	<b>2,407</b>	<b>2,686</b>	<b>3,030</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>							
Movements in short term investments	-	-	-	-	-	-	-
Purchase of subsidiary undertakings	(97)	-	-	-	-	-	-
Payment on settlement of TKT appraisal rights	-	-	-	-	-	-	-
Purchase of long term investments	(18)	-	-	-	-	-	-
Purchase of PPE	(141)	(150)	(150)	(150)	(150)	(150)	(150)
Purchase of intangible assets	(44)	(44)	(45)	(46)	(47)	(48)	(49)
Other	-	-	(4,200)	-	-	-	-
<b>Cash flows from investing activities</b>	<b>(271)</b>	<b>(194)</b>	<b>(4,395)</b>	<b>(196)</b>	<b>(197)</b>	<b>(198)</b>	<b>(199)</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>							
Proceeds from issue of long term debt	-	-	2,600	-	-	-	-
Payments on long term debt	(9)	-	(1,100)	(400)	(500)	(500)	(500)
Proceeds from exercise of options	16	-	-	-	-	-	-
Repurchase of Common stock	(206)	(195)	-	-	-	-	-
Dividends Paid	(86)	(108)	(190)	(212)	(230)	(262)	(301)
Tax benefit of stock option compensation	41	-	-	-	-	-	-
<b>Cash flows from financing activities</b>	<b>(244)</b>	<b>38</b>	<b>1,310</b>	<b>(612)</b>	<b>(730)</b>	<b>(762)</b>	<b>(801)</b>
FX effect	(5.4)	(0)	-	-	-	-	-
Net cash from discontinued businesses	-	-	-	-	-	-	-
<b>Change in cash and cash equivalents</b>	<b>862</b>	<b>1,176</b>	<b>(1,190)</b>	<b>1,366</b>	<b>1,479</b>	<b>1,726</b>	<b>2,030</b>

Source: Company reports and Citi Research

Companies mentioned: (AGN.N; US\$98.10; 2); (ALM.MC; €11.16; 1); (ATLN.VX; SFr74.80; 2); (ENDP.O; US\$64.14; 1); (FRX.N; US\$51.32; 1); (GRLS.MC; €31.94; 1); (IPN.PA; €32.97; 2); (MRCG.DE; €124.25; 2); (SHP.L; £28.00; 1); (UCB.BR; €49.13; 2); (ZTS.N; US\$31.42; 1); (VRX.N; US\$105.92; Not Rated)

## Shire Pharmaceuticals

### Company description

Shire is a specialty pharmaceutical company focusing on ADHD, GI disorders and an increasing presence in Orphan Drug Diseases post the acquisition of TKT in 2005.

### Investment strategy

We rate Shire Buy. We model 2013e-2018e earnings CAGR of 14%. Our analysis suggests that the market underestimates: (i) the operating leverage associated with Shire's orphan drugs business, and (ii) the revenue opportunity for Vyvanse and Intuniv as the US ADHD market continues to benefit from increased penetration of the adult patient population group.

### Valuation

Our £32 target price is based on a 2014e non-GAAP P/E multiple of 16.5x. A premium to the sector is justified, we believe, given the growth profile of the company. Our DCF-based intrinsic value of the stock is £40.70 and is based on a WACC of 7.5% and long-term growth rate of 0%, representing the long-term growth of HGT, partially offset by the patent expiries of the company's ADHD franchise. Consistent with the rest of the sector, strong cash flows drive a DCF valuation higher than our P/E valuation.

### Risks

Key risks include: (i) Continued slowdown in Vyvanse scrip growth, despite the re-allocation of promotional resources behind this asset; (ii) continued loss of Replagal market share to Sanofi/Genzyme's Replagal; (iii) negative pipeline catalysts.

## Appendix A-1

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### Shire Pharmaceuticals (SHP.L)

#### Ratings and Target Price History Fundamental Research

Analyst: Liav Abraham

Covered since November 30 2012



Date	Rating	Target Price	Closing Price
1 22-Feb-11	2M	*18.00	16.94
2 29-Jul-11	2M	*22.00	21.19
3 7-Oct-11	Stock rating system changed		
4 8-Oct-11	*2	22.00	20.23

\* Indicates change

Date	Rating	Target Price	Closing Price
5 24-Nov-11	Coverage terminated		
6 29-Nov-11	*1	*24.00	20.45
7 21-May-12	1	*23.00	19.09
8 25-Jun-12	1	*22.50	17.43

Date	Rating	Target Price	Closing Price
9 3-May-13	1	*22.00	18.70
10 26-Jul-13	1	*26.00	23.27
11 9-Sep-13	1	*29.00	24.42
12 28-Oct-13	1	*32.00	28.14

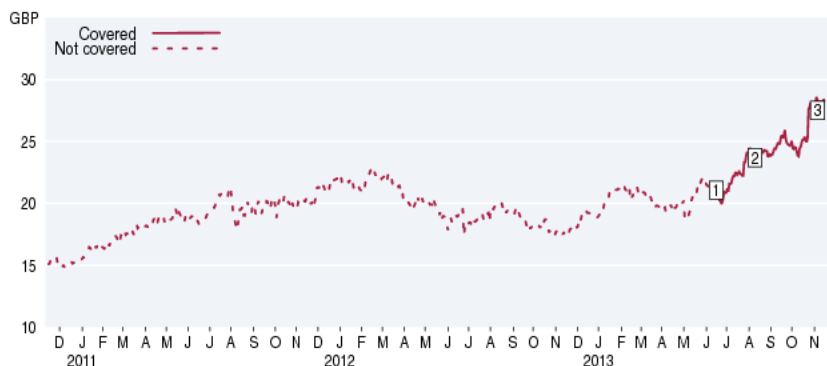
Rating/target price changes above reflect Eastern Standard Time

### Shire Pharmaceuticals (SHP.L)

#### Ratings and Target Price History Best Ideas Research Relative Call (3 Month)

Analyst: Liav Abraham

Covered since November 30 2012



Date	Rating	Target Price	Closing Price
1 16-Jun-13	*ADD LP	-	20.82

\* Indicates change

Date	Rating	Target Price	Closing Price
2 9-Aug-13	*ADD MP	-	23.87

Date	Rating	Target Price	Closing Price
3 6-Nov-13	*REM MP	-	28.30

Rating/target price changes above reflect Eastern Standard Time

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Data current as of 30 Sep 2013

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% of companies in each rating category that are investment banking clients	55%	50%	43%	64%	51%	48%

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