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Reason for report:

INDUSTRY UPDATE

SPECIALTY PHARMACEUTICALS

Why VRX Looks Like the Better Exit for AGN Shareholders Than SHPG

• **Bottom Line:** In this report we assess a theoretical AGN (MP)-SHPG (OP) combination and analyze whether AGN shareholders would be better served accepting VRX's current acquisition offer. Based on our analysis, we believe VRX represents a better option than SHPG because: (1) financially – SHPG looks more accretive near term, but the VRX option looks much more compelling on DCF; (2) risk profile – SHPG faces several major LOEs in the next 6-8 years whereas VRX's sales mix is more durable; (3) strategic rationale – combined VRX-AGN creates two powerhouse franchises in dermatology and ophthalmology with better pot'l for cost/revenue synergies. Further, VRX will be relatively delevered post deal and positioned for its "next deal," possibly a major transaction to bolster the company's consumer franchise. On pp. 3-4 we provide our detailed pro forma models for both the VRX and SHPG M&A scenarios.

• **Why we view VRX as the preferred exit for AGN shareholders.** Our VRX/AGN deal assumptions include a \$49B transaction cost (70% equity & 30% cash), \$2.7B in cost synergies, and an assumed single-digit tax rate targeted by VRX. The NewCo would have combined '15E EPS that is 15-20% accretive to VRX stand-alone earnings and a DCF of ~\$190. If VRX reaches a 12-month valuation of \$190 valuation post deal, AGN's shares would be worth \$206 (\$48.30 cash + 0.83 VRX shares), well north of a \$150 DCF under the SHPG option. Beyond valuation, we view VRX as preferable given VRX's lack of major LOEs (loss of exclusivity), and its complementary dermatology and ophthalmology businesses should allow for higher cost/revenue synergies and make for a more compelling business mix.

• **SHPG option structurally at a disadvantage competing with VRX bid.** We est it would cost AGN ~\$40B to buy SHPG (60% equity & 40% cash). We assume \$1.4B in cost synergies and forecast the deal being 30% accretive to our '15E SHPG EPS and 40-50% to our out-yr estimates (fully synergized). Overall, the SHPG option looks less compelling on valuation, strategic rationale and durability of sales; if the deal is successful, AGN will need to become a "cost cutter." Further, given SHPG & AGN's lack of overlap, we believe the theoretical entity would be challenged to achieve higher synergies than the \$1.4B we model.

• **With SHPG, AGN investors would be making a big bet on pipeline.** We estimate ~45% of SHPG's 2015 sales are at risk to generic competition in '15-'23 timeframe, and mgmt doesn't seem particularly optimistic on life cycle mgmt prospects for key franchises (Vyvanse & Lialda). Also, ~15% of brand sales (Vpriv & Cinryze) may face significant competitive headwinds in the next few yrs, and some question whether SHPG has the pipeline to absorb all of the above headwinds. Conversely, only 15% of VRX's revenue mix comes from non-durable products.

S&P 500 Health Care Index:

670.12

Companies Highlighted:
AGN, SAN FP, SHPG

REVIEW OF POTENTIAL AGN-SHPG COMBINATION

In this report we analyze the prospect of an AGN-SHPG business combination as an alternative to VRX's recent bid to acquire AGN. Our conclusions are that: (1) an AGN-SHPG combination would create less value for AGN shareholders than the proposed VRX-AGN combination; (2) AGN-SHPG would be significantly accretive to non-GAAP earnings, but the deal looks less compelling on a DCF basis; (3) strategically, the VRX-AGN combination makes more sense than the SHPG option, as the combination creates dermatology and ophthalmology powerhouse franchises which have the potential to generate revenue synergies. Further, an AGN-SHPG combination creates a bunch of disparate assets that we believe will be difficult to scale up whereas the VRX-AGN combination appears well positioned for VRX's "next deal," potentially a deal to bolster the company's consumer franchise.

Our pro forma (PF) modelling assumptions follow for both AGN-SHPG and VRX-AGN business combinations. For the SHPG option, we estimate AGN will need to spend \$40B to consummate a deal, or a +30% premium relative to current SHPG trading levels. Key assumptions driving PF accretion of 30-40% in '15E-'18E include: (1) operational cost synergies of \$1.4B, which seem to be an appropriate "base case" based on our analysis of AGN and SHPG's respective cost structures, details follow; (2) deal financed 60% equity and 40% debt/cash, which would make SHPG shareholders 40% owners of the NewCo – we assume SHPG would require that AGN discount its current stock price given the impact of VRX's offer; & (3) AGN would accomplish a tax inversion through a SHPG acquisition, lowering AGN's tax rate to 19%, in line with SHPG's effective tax rate. Upside to our AGN-SHPG model include greater cost synergies, mainly from termination of ongoing R&D projects and/or selling & marketing efforts supporting existing brands.

Our AGN-SHPG pro forma model

Combined Theoretical SHPG-AGN P&L		2014E	2015E	2016E	2017E	2018E
Sales	SHPG		5,779	5,950	6,234	6,531
	AGN	6,925	7,580	8,153	8,688	9,193
	Total	6,925	13,358	14,103	14,922	15,725
Adj. COGS	SHPG		794	824	873	920
	AGN	886	978	1,053	1,122	1,205
	Est. Synergies	-	-	-	-	-
	Total COGS	886	1,772	1,876	1,995	2,125
Combined Gross Profit		6,039	11,586	12,227	12,927	13,599
% of sales		87%	87%	87%	87%	86%
Adjusted R&D	SHPG		900	885	930	965
	AGN	1,111	1,195	1,253	1,319	1,387
	Est. Synergies	-	(180)	(280)	(395)	(395)
	New R&D	1,111	1,915	1,858	1,854	1,957
Adjusted SG&A	SHPG		1,570	1,445	1,420	1,480
	AGN	2,591	2,763	2,941	3,083	3,208
	Est. Synergies	-	(415)	(660)	(925)	(925)
	New SG&A	2,591	3,918	3,726	3,578	3,763
Combined Operating Profit		2,337	5,754	6,642	7,495	7,879
Net interest income/(expense), net	SHPG		(40)	(33)	(31)	(15)
	AGN	(99)	(89)	(74)	(59)	(44)
	Total	(99)	(129)	(107)	(90)	(59)
Debt (Interest Paid)	Acq Debt interest owed		(675)	(540)	(405)	(270)
	Cash (Interest Lost)		(30)	(60)	(90)	(120)
	Total Interest Paid (lost CF) - per yr		(705)	(600)	(495)	(390)
Pre-tax income	SHPG		2,475	2,763	2,980	3,151
	AGN	2,237	2,554	2,832	3,105	3,349
	Incremental EBIT (Synergies minus finance costs)		(110)	340	825	930
	Total	2,237	4,919	5,935	6,910	7,430
Tax Expense	SHPG		445	499	540	571
	AGN	591	675	748	820	885
	Tax synergies/financing (benefit)		(212)	(148)	(76)	(74)
	Total	591	907	1,100	1,284	1,381
	Blended tax rate		18.4%	18.5%	18.6%	18.6%
Net Income	SHPG		2,030	2,264	2,440	2,580
	AGN	1,646	1,880	2,084	2,284	2,464
	Income benefit/(loss) from debt/synergies		102	488	901	1,004
	Total	1,646	4,012	4,835	5,626	6,048
% of net sales			30%	34%	38%	38%
Net income including MI						
Total		1,641	4,007	4,830	5,621	6,043
Combined SHPG-AGN EPS		\$ 5.44	\$ 8.12	\$ 9.79	\$ 11.39	\$ 12.24
Old AGN Share Count		302	302	302	302	302
New shares issued			192	192	192	192
Total new shares outstanding (MM)		302	494	494	494	494
Deal Summary:						
AGN Stand-alone EPS		\$ 5.44	\$ 6.21	\$ 6.89	\$ 7.55	\$ 8.15
Accretion/(dilution)		\$ -	\$ 1.91	\$ 2.90	\$ 3.83	\$ 4.10
% accretion/(dilution)			31%	42%	51%	50%

Source: Company info., Leerink Partners LLC est.

Our AGN-VRX pro forma model

Combined Theoretical VRX-AGN P&L		2014E	2015E	2016E	2017E	2018E
Sales	VRX	8,473	9,101	9,592	10,340	10,994
	AGN		7,580	8,153	8,688	9,193
	Total	8,473	16,681	17,745	19,028	20,187
Adj. COGS	VRX	2,371	2,453	2,477	2,781	2,941
	AGN		978	1,053	1,122	1,205
	Est. Synergies	-	-	-	-	-
	Total COGS	2,371	3,431	3,530	3,903	4,146
Combined Gross Profit		6,102	13,249	14,215	15,125	16,041
% of sales		72%	79%	80%	79%	79%
Adjusted R&D	VRX	292	219	264	283	299
	AGN		1,195	1,253	1,319	1,387
	Est. Synergies	-	(775)	(900)	(900)	(900)
	New R&D	292	639	617	702	786
	Total	292	963	977	1,102	1,185
Adjusted SG&A	VRX	1,854	1,856	1,914	1,971	2,083
	AGN		2,763	2,941	3,083	3,208
	Est. Synergies	-	(1,520)	(1,800)	(1,800)	(1,800)
	New SG&A	1,854	3,099	3,055	3,254	3,491
Combined Operating Profit		3,956	9,512	10,543	11,169	11,764
Net interest income/(expense), net	VRX	(847)	(756)	(791)	(755)	(671)
	AGN		(80)	(65)	(50)	(35)
	Total	(847)	(836)	(856)	(805)	(706)
Debt (Interest Paid)	Acq Debt interest owed		(825)	(660)	(495)	(330)
	Cash (Interest Lost)		(30)	(60)	(90)	(120)
	Total Interest Paid (lost CF) - per yr		(855)	(720)	(585)	(450)
	Total	3,109	8,657	9,823	10,584	11,314
Pre-tax income	VRX	3,109	3,817	4,146	4,550	5,000
	AGN	-	2,564	2,841	3,114	3,358
	Incremental EBIT (Synergies minus finance costs)		1,440	1,980	2,115	2,250
	Total	3,109	7,821	8,967	9,779	10,608
Tax Expense	VRX	199	267	223	268	261
	AGN		675	748	820	885
	Tax synergies/financing (benefit)		(279)	(271)	(302)	(329)
	Total	199	663	700	786	817
	Blended tax rate		8.5%	7.8%	8.0%	7.7%
Net Income	VRX	2,910	3,550	3,923	4,282	4,739
	AGN	-	1,889	2,093	2,294	2,473
	Income benefit/(loss) from debt/synergies		1,719	2,251	2,417	2,579
	Total	2,910	7,158	8,267	8,993	9,791
% of net sales			43%	47%	47%	49%
Combined VRX-AGN EPS		\$ 8.71	\$ 12.18	\$ 14.07	\$ 15.30	\$ 16.66
Old VRX Share Count		334	334	334	334	334
New shares issued			254	254	254	254
Total new shares outstanding (MM)		334	588	588	588	588
Deal Summary:						
VRX Stand-alone EPS		\$ 8.71	\$ 10.63	\$ 11.75	\$ 12.82	\$ 14.19
Accretion/(dilution)		\$ -	\$ 1.55	\$ 2.32	\$ 2.48	\$ 2.47
% accretion/(dilution)			15%	20%	19%	17%

Source: Company info., Leerink Partners LLC est.

Based on our abbreviated DCF analysis, AGN shareholders likely to be better off under the VRX-AGN business combination

SHPG-AGN DCF ANALYSIS				
<i>Output:</i>				
Est. Share Price			<i>Assumptions:</i>	
Equity Value			Discount Rate (WACC)	9.0%
Net cash			Shares Out	494
- NPV F2014-15			Terminal Growth	2%
- NPV F2016-18			Cash	3,649
- NPV F2019-20			Short + long debt	17,674
- Terminal value				

SHPG-AGN cash flows	2014E	2015E	2016E	2017E	2018E
Present value of cash net income	1,646	4,012	4,436	4,735	4,671
Period	-	-	1	2	3

TV/Discounted TV	
88,135	68,050

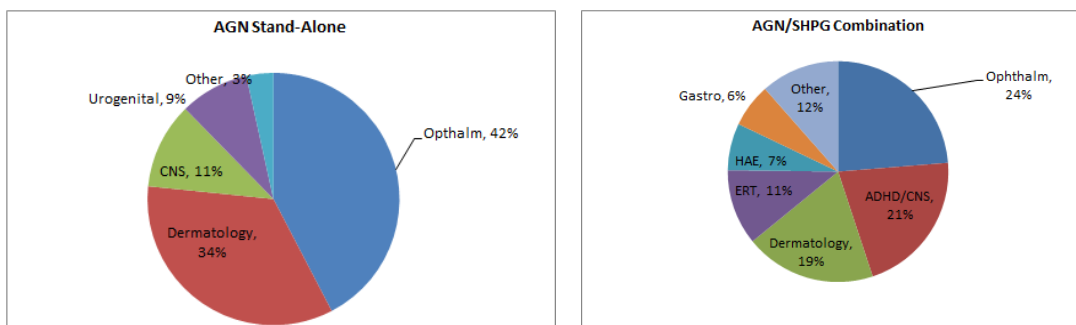
VRX-AGN DCF ANALYSIS				
<i>Output:</i>				
Est. Share Price			<i>Assumptions:</i>	
Equity Value			Discount Rate (WACC)	9.0%
Net cash			Shares Out	588
- NPV F2014-15			Terminal Growth	2%
- NPV F2016-18			Cash	4,249
- NPV F2019-20			Short + long debt	34,522
- Terminal value				

VRX-AGN cash flows	2014E	2015E	2016E	2017E	2018E
Present value of cash net income	2,910	7,158	7,584	7,569	7,561
Period	-	-	1	2	3

TV/Discounted TV	
142,673	110,180

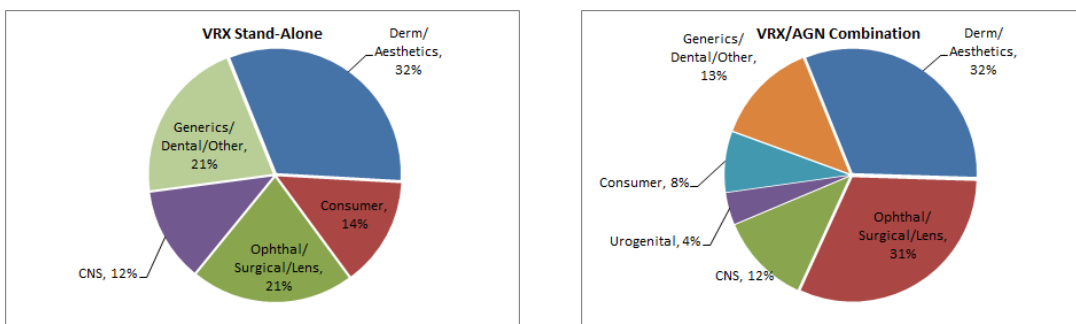
Source: Leerink Research estimates

AGN-SHPG combination would create a highly diverse company, but only strengthens the NewCo's position in CNS



Source: Leerink Research 2015 estimates

AGN-VRX would create powerhouse franchises in dermatology & ophthalmology



Source: Pershing Square Investor Presentation, FactSet Consensus, Leerink Research 2015 estimates

SHPG's operational spending has consistently averaged ~\$2.4B over the last three years, with R&D contributing 35-40% and SG&A comprising the remainder. In the context of a potential SHPG-AGN business combination, we view the following as likely areas for future cost cuts: (1) employee-related R&D costs, which were ~\$280m in 2013; (2) general and administrative spend – we est. 6-8% of SHPG sales, or \$350-450m in spend; & (3) we assume 30% of AGN's stand-alone cost structure can be reduced. In total, we forecast \$1.4B in cost synergies associated with the AGN-SHPG combination.

Conversely, VRX has disclosed that it believes it can capture \$2.7B in cost synergies, excluding tax-related synergies. In order for an AGN/SHPG combo to compete with the proposed VRX/AGN combination on cost synergies, we believe AGN would need to make some hard trade-offs such as cutting Botox-related spend and/or major R&D cuts. In short, we believe the AGN-SHPG would require a major cost cutting effort in order to justify the opportunity cost of passing on the VRX transaction and we question the strategic rationale of combining the two businesses.

A significant portion of SHPG sales are at risk to future brand and generic competition with no apparent life cycle mgmt strategy

Products	Est. 2015 sales	% of '15 sales	Overlap w/ AGN	Patent risk, '15-'23	Pot'l disruptive brand competitor risk in '15-'23
Vyvanse	1,625	27%	modest	yes	no
Elaprase	620	10%	no	no	no
Lialda	615	10%	no	yes	no
Cinryze	595	10%	no	no	Yes - orals & shorter course subcutaneous
Replagal	500	8%	no	no	no
Vpriv	381	6%	no	no	Yes - SNY's eliglustat
Firazyr	335	6%	no	no	no
Pentasa	250	4%	no	yes	no
Adderall XR	225	4%	modest	yes	no
% SHPG sales at risk to generics:				46%	
% SHPG sales at risk to disruptive brands:				16%	
% SHPG sales at risk ('15-'23):				62%	
% SHPG sales at risk, ex-Vyvanse ('15-'23):				35%	

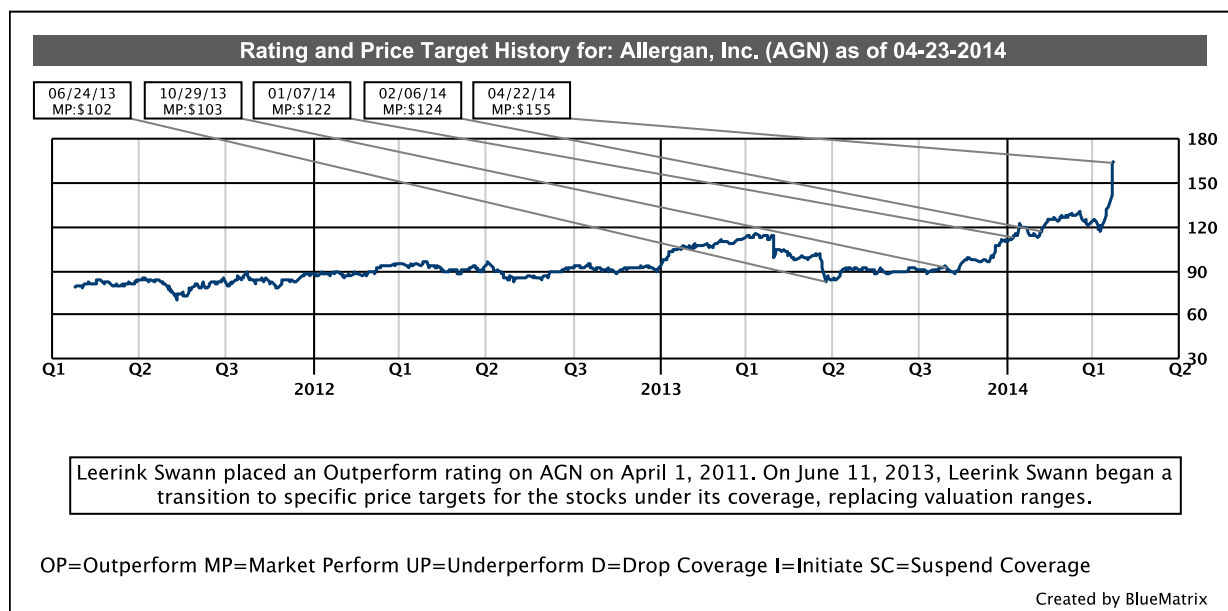
Source: Leerink Research estimates

Disclosures Appendix

Analyst Certification

I, Jason M. Gerberry, JD, certify that the views expressed in this report accurately reflect my views and that no part of my compensation was, is, or will be directly related to the specific recommendation or views contained in this report.

I, Seamus Fernandez, certify that the views expressed in this report accurately reflect my views and that no part of my compensation was, is, or will be directly related to the specific recommendation or views contained in this report.



Rating and Price Target History for: Sanofi (SAN FP) as of 04-23-2014

07/29/13
OP:€89

08/01/13
OP:€83

10/18/13
MP:€80



Leerink Swann initiated coverage of SAN FP with an Outperform rating on February 26, 2010. On June 11, 2013, Leerink Swann began a transition to specific price targets for the stocks under its coverage, replacing valuation ranges.

OP=Outperform MP=Market Perform UP=Underperform D=Drop Coverage I=Initiate SC=Suspend Coverage

Created by BlueMatrix

Rating and Price Target History for: Shire Pharmaceuticals Plc (SHPG) as of 04-23-2014

04/04/12
I:MP

06/12/12
OP

07/25/13
OP:\$128

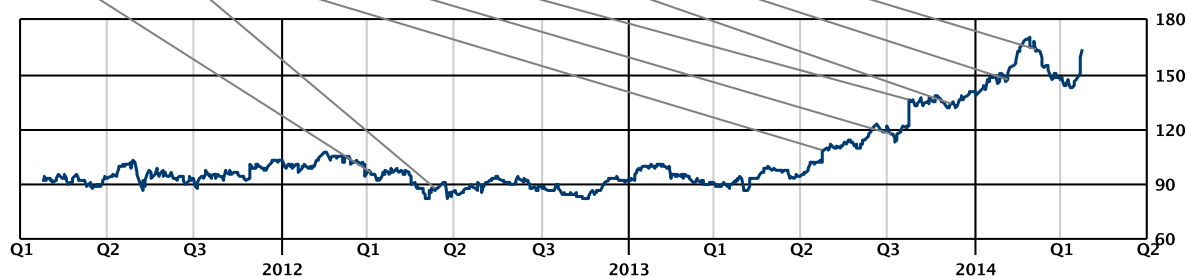
10/04/13
OP:\$136

10/24/13
OP:\$158

12/06/13
OP:\$154

02/04/14
OP:\$170

03/07/14
OP:\$190



Leerink Swann suspended coverage of SHPG on June 1, 2010. On June 11, 2013, Leerink Swann began a transition to specific price targets for the stocks under its coverage, replacing valuation ranges.

OP=Outperform MP=Market Perform UP=Underperform D=Drop Coverage I=Initiate SC=Suspend Coverage

Created by BlueMatrix

Distribution of Ratings/Investment Banking Services (IB) as of 03/31/14				
Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [OP]	131	68.23	46	35.11
HOLD [MP]	61	31.77	3	4.92
SELL [UP]	0	0.00	0	0.00

Explanation of Ratings

Outperform (Buy): We expect this stock to outperform its benchmark over the next 12 months.

Market Perform (Hold/Neutral): We expect this stock to perform in line with its benchmark over the next 12 months.

Underperform (Sell): We expect this stock to underperform its benchmark over the next 12 months. The degree of outperformance or underperformance required to warrant an Outperform or an Underperform rating should be commensurate with the risk profile of the company.

For the purposes of these definitions the relevant benchmark will be the S&P 600® Health Care Index for issuers with a market capitalization of less than \$2 billion and the S&P 500® Health Care Index for issuers with a market capitalization over \$2 billion.

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