Company

9 November 2009 | 40 pages

Sanofi-Aventis SA (SASY.PA)

Equity ☑
Target price change ☑
Estimate change ☑

When Flat Isn't Flat

- **Story Still Has Room To Run** — SASY has outperformed large-cap peers by 7-14% YTD; re-rating due to management's indication of at least flat net profit from 08-13 despite the patent cliff. However, we see further upside; we view flat as conservative and see a route by which SASY's 08-13 CAGR may equal the sector's 7% vs. consensus of 1% and our base case of 5%.
- **Citi 08-13E EPS +25% vs. Consensus 5% and Mgt's 'Flat'** — We believe our long held base case is conservative on patent challenges and we are below 2012 consensus for key products. Despite this we are 4-19% above consensus 2011-2013E EPS. The difference is driven by; 1) reflecting a 75% rise in emerging market (EM) sales from 08-13E and 2) our in-depth margin analysis suggesting 09-13E margins of 37-38% vs. consensus of 33%-37%.
- **Sector Growth Within Reach** — Three on market sources of additional potential upside to Citi and consensus exist from; 1) doubling emerging markets by 2013 to €13bn, 2) doubling Lantus from 08-12 to €4.9bn vs. our €3.9bn estimate, and 3) delays to generic Lovenox. Two pipeline assets may also surprise; 1) an early filing of BSI-201 (cancer) in 2010 and 2) Ciltyri for sleep maintenance. Incorporating these on a risk adjusted basis suggests sector average 08-13E EPS CAGR of 7% and an associated re-rating is within reach in our view.
- **BUY, New TP €63** — Our '10-13E EPS is lifted 5-10% for 75% EM sales growth 08-13E (from 50% due to faster expected growth from 2010E onwards), Merial, margins and 3Q09 results. We value SASY using a P/E of 8.8x (20% disc. to the sector vs current 30%) on '11E EPS giving €59. With no further re-rating adding the risk-adjusted value of the potential upsides gives €63.

Buy/Medium Risk	**1M**
Price (09 Nov 09)	€50.18
Target price	€63.00
from €54.00	
Expected share price return	25.5%
Expected dividend yield	5.3%
Expected total return	**30.9%**
Market Cap	€66,045M
	US$98,067M

Price Performance (RIC: SASY.PA, BB: SAN FP)

Sanofi-Aventis SA (EUR)

Year to 31 Dec	2007A	2008A	2009E	2010E	2011E
Sales (€M)	29,207.0	28,816.9	30,736.1	30,345.6	30,340.3
Net Income (€M)	6,960.9	7,185.8	8,521.8	8,523.9	8,698.6
Diluted EPS (€)	5.14	5.46	6.50	6.52	6.65
Diluted EPS (Old) (€)	5.14	5.46	6.35	6.08	6.22
PE (x)	9.8	9.2	7.7	7.7	7.5
EV/EBITDA (x)	3.4	3.2	2.9	2.7	2.5
DPS (€)	2.07	2.20	2.67	2.67	2.73
Net Div Yield (%)	4.1	4.4	5.3	5.3	5.4

Mark Dainty, ACA
+44-20-7986-4164
mark.dainty@citi.com

Kevin Wilson
kevin.c.wilson@citi.com

Joanne Jerman
joanne.jerman@citi.com

Robert Dickinson, CA
robert.dickinson@citi.com

See Appendix A-1 for Analyst Certification and important disclosures.

Fiscal year end 31-Dec	2007	2008	2009E	2010E	2011E
Valuation Ratios					
P/E adjusted (x)	9.8	9.2	7.7	7.7	7.5
EV/EBITDA adjusted (x)	3.4	3.2	2.9	2.7	2.5
P/BV (x)	1.5	1.5	1.4	1.3	1.2
Dividend yield (%)	4.1	4.4	5.3	5.3	5.4
Per Share Data (€)					
EPS adjusted	5.14	5.46	6.50	6.52	6.65
EPS reported	3.83	2.89	4.82	4.86	4.99
BVPS	33.07	34.27	36.51	38.81	41.16
DPS	2.07	2.20	2.67	2.67	2.73
Profit & Loss (€M)					
Net sales	29,207	28,817	30,736	30,346	30,340
Operating expenses	-23,367	-24,472	-22,992	-22,817	-22,797
EBIT	**5,840**	**4,344**	**7,744**	**7,528**	**7,543**
Net interest expense	-139	-232	-255	-224	-72
Non-operating/exceptionals	597	812	1,145	1,268	1,308
Pre-tax profit	**6,298**	**4,924**	**8,634**	**8,572**	**8,778**
Tax	-687	-682	-1,868	-1,811	-1,859
Extraord./Min.Int./Pref.div.	-419	-441	-452	-408	-391
Reported net income	**5,192**	**3,801**	**6,313**	**6,354**	**6,529**
Adjusted earnings	6,961	7,186	8,522	8,524	8,699
Adjusted EBITDA	19,736	20,558	22,739	23,442	23,585
Growth Rates (%)					
Sales	-1.0	-1.3	6.7	-1.3	0.0
EBIT adjusted	-3.0	-3.1	22.5	-2.1	0.1
EBITDA adjusted	-9.7	4.2	10.6	3.1	0.6
EPS adjusted	5.9	6.2	19.1	0.3	2.0
Cash Flow (€M)					
Operating cash flow	**7,329**	**8,462**	**8,729**	**9,630**	**9,588**
Depreciation/amortization	4,567	4,717	4,989	5,305	5,347
Net working capital	-811	-401	-561	152	-52
Investing cash flow	**-1,716**	**-1,907**	**-7,652**	**-2,565**	**-1,864**
Capital expenditure	-1,610	-1,359	-1,452	-1,815	-1,864
Acquisitions/disposals	-106	-548	-6,200	-750	0
Financing cash flow	**-4,820**	**-3,819**	**-130**	**-3,725**	**-4,076**
Borrowings	-935	65	3,250	-250	-600
Dividends paid	-2,373	-2,708	-2,880	-3,475	-3,476
Change in cash	**793**	**2,736**	**946**	**3,341**	**3,648**
Balance Sheet (€M)					
Total assets	**71,891**	**71,987**	**77,247**	**78,906**	**80,422**
Cash & cash equivalent	1,794	4,629	5,376	8,717	12,365
Accounts receivable	4,904	5,303	5,613	5,511	5,532
Net fixed assets	6,515	6,961	8,699	8,934	9,175
Total liabilities	**27,195**	**26,916**	**28,991**	**27,363**	**25,435**
Accounts payable	2,749	2,791	2,845	2,823	2,820
Total Debt	5,941	6,006	9,256	9,006	8,406
Shareholders' funds	**44,719**	**45,070**	**48,256**	**51,543**	**54,987**
Profitability/Solvency Ratios (%)					
EBITDA margin adjusted	67.6	71.3	74.0	77.2	77.7
ROE adjusted	15.4	16.1	18.4	17.4	16.7
ROIC adjusted	14.2	14.7	16.1	15.9	16.9
Net debt to equity	9.3	3.1	8.0	0.6	-7.2
Total debt to capital	11.7	11.8	16.1	14.9	13.3

For further data queries on Citi's full coverage universe please contact CIR Data Services Europe at CIRDataServicesEMEA@citi.com or +44-207-986-4050

Powered by: dataCentral

Contents

When Flat Isn't Flat 4

Conservative Base Case Ahead of Consensus 5

Conservative Base Case 5

Margins More Robust Than Consensus Thinks 6

Emerging Market Sales Increase 75% 7

Citi vs Consensus 8

08-13 Net Profit + 25% vs. Consensus +5% 9

Will There Be Growth In 2010? 9

Forecast Changes 9

Merial An Attractive Deal 11

Merial Business Mix Attractive 11

Upsides Could Drive Sector Average Growth 14

Sector Average Growth Within Reach 14

Emerging Markets Double To €13bn 08-13 16

EM Key To Offsetting Patent Expiries, SASY Well Positioned 16

EM Upside To Forecasts 16

Is Organic EM Growth Too Slow? 18

Lantus Doubling To €4.9bn From 08-12 19

Lantus Strategy 19

Upside From Lantus Doubling 23

Delay To Lovenox US Generics 24

Generics Assumed 4Q10 24

Upside Scenario From Generics Delay 24

Ciltyri Optionality Could Drive Upside 26

Poor Polysomnography Data The Key To Complete Response? 26

Will Patient Reported Endpoints Be Enough? 28

Recently Completed Studies May Help SASY's Case 28

Labelling Upsides May Exist 29

High Risk, High Reward 29

Upside to EPS 30

An Early Filing For BSI-201 30

Strong Data At ASCO 30

Is An Early Filing Possible? 31

Upside To EPS From An Early Filing 32

Sanofi-Aventis SA 32

Company description 32

Investment strategy 32

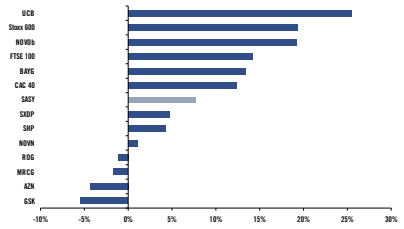
Valuation 32

Risks 33

Appendix A-1 37

When Flat Isn't Flat

Figure 1. Sector Performance YTD



Source: Citi Investment Research and Analysis

SASY has outperformed its mega-cap peers by 7-14% YTD, up 8%. Management have communicated a clear strategy and given guidance that net profit could be at least flat through the 2008-13 period despite the patent cliff. Despite this we believe the story still has plenty of room left to run; we see consensus (IBES) as too conservative and see further potential upside to our already ahead forecasts that could drive 08-13E CAGR in line with the sector average of 7%. If achieved we would expect significant further re-rating.

We are 4-19% above consensus in the '11-13E period on net profit and our rise in net profit is 25% vs consensus 5% and guidance of flat. This is despite conservatively assuming genericisation of Lovenox in 4Q2010 and being behind consensus on Plavix (21%), Lovenox (14%) and just behind on Lantus in 2012.

We see the difference as driven by two things; 1) our forecasts have a 75% increase in emerging markets sales by 2013E vs the company's goal of double and 2) our in-depth margin analysis that suggests operating margins of 37-38% from 2010-13E vs consensus' 33-37%. This results in an 08-13E EPS CAGR of 5% vs the sector's 7% and consensus' 1%

We believe additional on market and pipeline upsides exist that could drive significant upside to our ahead of consensus forecasts. In turn these upsides could drive SASY's EPS CAGR closer to the sector average of 7% which in our view would drive a significant further re-rating and closing of the 20% discount to the sector.

We highlight these potential upsides, their impact on 2011E EPS, 08-13E CAGR and valuation in the table below. We assign a probability to these and derive a risk adjusted value for each metric as well as a blue sky value assuming all happen as planned.

We do not include all of these in our forecasts as we wait for newsflow to increase our conviction. We now use a two step valuation for SASY. We apply a 8.8x multiple on 2010E EPS, reflecting a 20% discount to today's 2009E sector multiple to get €59. We then take the value of the potential upsides on a probability adjusted basis which adds a further €4 to give our new TP of €63, up from €54 due to higher EPS and including the potential upsides in our valuation. We lift '10-13E EPS by 5-10% to reflect the 75% growth in EM (from 50% due to an expected acceleration growth from 2010-13E), the Merial deal (assuming the Intervet Schering-Plough option is taken), updated assumptions for our margin analysis and 3Q09 results.

With significant potential upside to consensus EPS over the next 4 years both on our base case and from the upsides outlined above, an EPS CAGR that could approach the sector average and a valuation that we believe does not reflect many of the company's stated goals, we re-iterate our BUY with new TP of €63.

Figure 2. Base Case, Upside and EPS Growth and Valuation Impact of Upsides

	SASY Goal	Citi Base Case Assumption	Upside Scenario	Probability	% on 2011E EPS	PE Value	NPV (DCF)	Incremental 08-13E CAGR
Emerging Markets	Double sales from 08-13 to €13bn	€11.4bn by 2013 (75% increase)	€13bn by 2013	80%	2%	1.4	2.6	1%
Lantus	Double sales from 08-12 to €4.9bn	€3.8bn by 2012	€4.9bn by 2012	65%	6%	1.4	2.5	1%
Lovenox	n/a	US Goes generic 4Q10; EU competition from orals from 2011	No generic; oral competition erodes just 30% of revenues	50%	4%	2.1	0.7	1%
BSI-201	n/a	Launch 2012	Early filing end 09, launch mid 2010	40%	4%	1.2	0.6	1%
Ciltyri (eplivanserin)	n/a	€234m by 2013	€834m by 2013	25%	2%	0.5	3.5	1%
				Base Case	€ 6.65	59.0	66.2	5%
				Probability Adjusted	10%	3.7	5.2	2%
				Base Case + Upsides	**€ 7.29**	**62.7**	**71.4**	**7%**

Source: Citi Investment Research and Analysis

Conservative Base Case Ahead of Consensus

- **Conservative Base Case** – We maintain a conservative view on product sales in the face of ongoing patent challenges. We also maintain a conservative view on Lantus sales reaching only €3.9bn vs SASY's goal of €4.9bn in 2012E.
- **08-13E EPS +25% vs Consensus' +5%** – Despite this conservatism our 08-13E EPS rises by 25% vs 2008. Consensus rises by only 5% having recently lifted up from -6%. This compares with management's indication of at least flat. Between 2011-13E we are 4-19% ahead of consensus.
- **Emerging Markets and Margins Drive Difference** – The key drivers of the difference are; 1) our forecasts reflecting a 75% increase in EM sales from 08-13E and 2) our detailed margin analysis suggests that 2011-2013E margins can be maintained around 37-38% vs consensus' 33-37%.

Conservative Base Case

Since our upgrade to Buy on May 28 we have taken a conservative view of the many patent challenges that the company faces over the next few years. In total €14bn of profit driving revenue (not all consolidated) is going off patent/faces challenges.

In addition to patent risks we also have a prudent reduction in the growth rate of Lantus following the cancer signal scare raised in the journal Diabetologia on June 26. We assume 2012 sales of €3.9bn vs. the company's goal of doubling sales from 08-12 to €4.9bn

We also do not factor in the company's goal to double emerging markets (EM) sales by 2013. We previously forecast the old goal of a 50% increase in pharma and vaccine sales by 2012, including the Zentiva acquisition contribution.

However, we now increase our EM sales estimates to forecast a 75% increase in EM sales from 08-13, including the recent acquisitions. We believe that consensus figures do not adequately reflect even the old goal of a 50% increase by 2012 so we see our forecasts as ahead of the market in this regard.

Figure 3 shows the base case assumptions we make. It also summarises SASY's goals and the potential upsides that we discuss in this note.

Figure 3. Current Base Case & Upside Scenario Assumption

	SASY Goal	Citi Base Case Assumption	Upside Scenario
Emerging Markets	Double sales from 08-13 to €13bn	€11.4bn by 2013 (75% increase)	€13bn by 2013
Lantus	Double sales from 08-12 to €4.9bn	€3.9bn by 2012	€4.9bn by 2012
Lovenox	n/a	US Goes generic 4Q10; competition from orals from 2011	No generic; oral competition erodes 35% of revenues
Eloxatin	n/a	Generic from 3Q09	Returns to market (not considered in this note)
Merial + ISP	n/a	ISP + Merial Option taken	n/a
Multaq	n/a	€1.3bn by 2012	-
BSI-201	n/a	Launch 2012	Early filing end 09, launch mid 2010
Eplivanserin	n/a	€234m by 2013	€834m by 2013

Source: Citi Investment Research and Analysis

Margins More Robust Than Consensus Thinks

Margin Analysis Indicates Trough At 37%

Our bespoke analysis of the upcoming industry patent cliff has focused in detail on the profit and loss on a product and divisional basis for both SASY, AZN and NOVN. We see this as the only way to get a handle on the margin progression through the patent cliff. In turn this contributes significantly to deciding whether the challenges are surmountable or not.

Our margin analysis suggests that margins for SASY are sustainable above 36% for the duration of the patent cliff and closer to 38-39% before 2012. Stepping back to sense check this appears reasonable. The guidance of flat sales and net income through the 08-13 period suggests op. margins will be flat in 2013 vs 2008. However, a significant amount of profit should be lost from the associates income line (due to the Plavix profit share), therefore op margins in 2013 should be higher than 2008 to offset some of this lost associate income. As 2008 margins were 35.4% our c.37% estimate in 2013 doesn't seem unreasonable in our view.

This compares favourably with consensus margins that trough in 2013 at 33%.

We first published our margin analysis for SASY in our upgrade to Buy on May 28 but have updated it for renewed cost savings goals, sales forecasts and an update in our Vaccines margin assumptions.

Figure 4. CIRA Margin Calculation By Business Type

	2009E	2010E	2011E	2012E	2013E
Top 15 US & EU Sales	13,165	11,359	10,177	9,449	9,379
EBIT	10,268	9,143	8,315	7,099	6,449
Margin	78.0%	80.5%	81.7%	75.1%	68.8%
To 15 Emerging/ROW	3,985	4,423	4,834	5,135	5,256
EBIT	2,192	2,433	2,659	2,824	2,891
Margin	55%	55%	55%	55%	55%
Base Sales	6,251	6,379	6,602	6,834	6,946
EBIT	2,813	2,870	2,971	3,075	3,126
Margin	45%	45%	45%	45%	45%
Generics	981	1,305	1,461	1,621	1,767
EBIT	147	196	234	276	318
Margin	15%	15%	16%	17%	18%
OTC	1,401	1,443	1,486	1,531	1,577
EBIT	210	216	238	260	284
Margin	15%	15%	16%	17%	18%
Vaccines Sales	3,488	3,803	3,927	4,311	4,643
EBIT	1046	1160	1217	1380	1532
	30%	31%	31%	32%	33%
Central Costs	-5,602	-5,546	-5,490	-5,435	-5,381
Growth	-2%	-1%	-1%	-1%	-1%
Total Cost Savings	353	634	924	1,514	2,104
Target Margins	**39.0%**	**38.5%**	**38.5%**	**37.5%**	**37.5%**
Current Margins	**38.5%**	**38.3%**	**38.2%**	**37.1%**	**37.0%**

Source: Citi Investment Research and Analysis

Emerging Market Sales Increase 75%

Forecasting EM is difficult due to the fragmentation of markets and lack of the visibility provided by Western markets. However, SASY provides more detail than most on product sales and profitability.

In order to capture some of the upside for these regions we now include a c.75% increase in EM sales as we expect EM sales growth to accelerate next year and beyond. We lift this from our previous assumption of SASY's old goal of a 50% increase to try to get a real handle on the true earnings potential of the business and because we expect growth to accelerate from the current organic rate of 7% from 2010 onwards. We also include a c.75% in vaccines EM sales, conservatively assuming growth in line with the global vaccines sales and including the Shantha acquisition in India.

Figure 5 shows how these are split across the different business types.

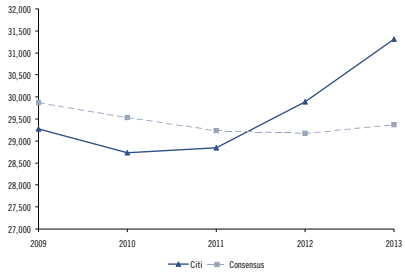
Figure 5. SASY Aspirational Goals and Current CIRA Forecasts for EM Sales

Aspirational Goals (100% Increase From 08-13)	**2008**	**2013E**	**Growth**	**% Increase**	**08-13E CAGR**
Pharma	5,740	11,480	5,740	100%	
Vaccines	800	1,600	800	100%	
Total EM Sales	**6,540**	**13,080**	**6,540**	**100%**	**15%**
Growth from M&A (Zentiva, Medley & Kendrick)		1,345	1,345		
Organic Group EM Sales Growth Req'd	6,540	11,735	5,195	79%	12%
CIRA Current Assumptions	**2008**	**2013E**	**Growth**	**% Increase**	**08-13E CAGR**
Organic					
Base Business EM Sales	2,792	4,419	1,626	58%	10%
Top 15 EM Sales	2,927	4,238	1,311	45%	8%
Pharma EM Sales	5,720	8,657	2,937	51%	9%
Vaccines EM Sales	800	1,400	600	75%	12%
Total	**6,520**	**10,057**	**3,537**	**54%**	**9%**
M&A Growth					
Zentiva, Medley & Kendrick	0	1,345	1,345	n/m	n/m
Total EM Sales	**6,520**	**11,401**	**4,882**	**75%**	**12%**

Source: Company Reports, Citi Investment Research and Analysis

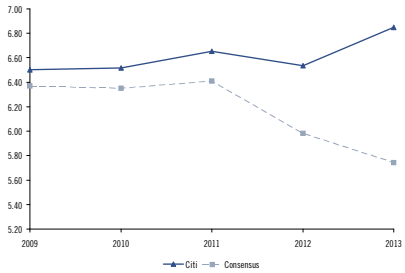
Citi vs Consensus

Figure 6. CIRA vs Consensus Sales (€m)



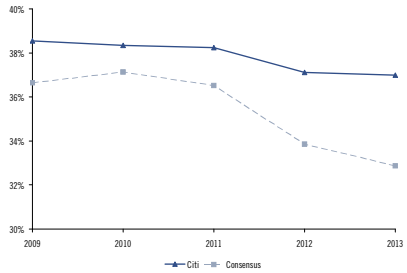
Source: CIRA, IBES

Figure 7. CIRA vs Consensus EPS (€)



Source: CIRA, IBES

Figure 8. CIRA vs Consensus Op. Margins (%)



Source: CIRA, IBES

Figure 9. CIRA vs Consensus

		2009E	2010E	2011E	2012E	2013E	08-13E CAGR	Delta 08-13E
Consensus	Sales	29,867	29,526	29,235	29,168	29,368	1.3%	6.5%
	Op Profit	10,942	10,966	10,678	9,876	9,654		
	Margin	36.6%	37.1%	36.5%	33.9%	32.9%		
	EPS	6.37	6.35	6.41	5.98	5.74	1.0%	5.1%
Citi	Sales	29,270	28,735	28,846	29,887	31,317	2.6%	13.6%
	Op Profit	11,282	11,017	11,032	11,092	11,586		
	Margin	38.5%	38.3%	38.2%	37.1%	37.0%		
	EPS	6.50	6.52	6.65	6.53	6.85	4.6%	25.4%
Delta	Sales	-2.0%	-2.7%	-1.3%	2.5%	6.6%		
	Op Profit	3.1%	0.5%	3.3%	12.3%	20.0%		
	Margin	191	120	172	326	413		
	EPS	2.1%	2.7%	3.8%	9.2%	19.3%		

Source: CIRA, IBES

Our sales forecasts are in broadly line with consensus to 2012 and significantly ahead in 2013 despite assuming the following;

- US genericisation of Lovenox next year (14% below consensus in 2012) at €2.0bn.
- Aggressive genericisation of Plavix in Europe (21% below consensus in 2012) at €1.4bn.
- 2012 Lantus sales just behind consensus in 2012 at €3.9bn.
- Vaccines sales in line with 2012 consensus.

On this basis we believe that consensus does not reflect the goal for EM sales in its forecasts. On top of better outer year sales we are 4-19% ahead on '11-13E EPS due to stronger margin assumptions.

08-13E Net Profit + 25% vs. Consensus +5%

The product of better EM sales which grow through the patent expiry at constant margins and the detailed calculation of margins by splitting the business up by its constituents leads to a better estimated EPS profile than consensus.

From 08-13E the basis upon which the company is now judged given its "guidance", we are significantly ahead of consensus with EPS at +25%. This is significantly greater than consensus' +5%, recently lifted from a 6% decline.

Our base case stance gives an EPS CAGR 08-13E of 5%. This is slightly behind the sector 08-13E EPS CAGR of 7%. However, as we highlight in this report we believe this 5% could be boosted closer to the sector average if additional upsides conditional on positive newsflow bear fruit. If this becomes achievable then a major re-rating to close the majority of the 20% discount to the sector may be within reach in our view.

Will There Be Growth In 2010?

While we are focusing mainly on the medium-term outlook the near term can't be ignored. We estimate 2010 is a mixed year with negatives from the genericisation of Eloxatin and Ambien CR (expected eventually) likely to weigh on EPS. FX tailwinds have already started to diminish and based on current rates there should be a 4% headwind for 2010. In addition rising raw material costs for Lovenox (up 5x vs 2008) should also erode the gross margin. However, both the FX and heparin pricing situation may subside.

Offsetting this is continued cost cutting, growth in emerging markets, an expanded indication for Plavix (atrial fibrillation), growth in Multaq and Lantus.

Consensus expects no EPS growth for 2010E at €6.37 vs €6.34 for 2009E, we forecast €6.50 and €6.52. Therefore if the company can guide to 2010 EPS growth of more than the prevailing FX headwind on a local currency basis we would expect upgrades to consensus.

Forecast Changes

The changes we make to EPS in this note are driven by the following:

- The inclusion of the Merial + ISP combination (no divestments assumed).
- Lifting our EM sales forecasts from 50% increase to a 75% increase for 08-13.
- The delay of approval of Lovenox generics from 1Q10 to 4Q10 to ensure our 2010E EPS is consistent with the likely basis for 2010 guidance.
- Updated margin assumptions from the above changes, factoring in a higher vaccines operating margin than we previously estimated.
- Other small changes e.g. factoring in the end of the *Copaxone* co-marketing agreement in EU/ROW in 2011/12 and updates following 3Q09 results including H1N1 sales of $500m in 2009E and 2010E at group margins.

Figure 10. Forecast Changes (€m, EPS in €)

-	-	2008a	2009e	2010e	2011e	2012e	2013e	CAGR 08-13	Comments
Sales	Old	27,568	28,800	27,876	28,102	29,300	30,317	1.9%	
Sales	New	27,568	29,270	28,735	28,846	29,887	31,317	2.6%	H1N1 in 2009 & 2010 ($500m in each).Increase in EM sales
% change	-	0.0%	1.6%	3.1%	2.6%	2.0%	3.3%	0.7%	
Gross profit	Old	21,482	22,773	21,937	21,997	22,583	23,021		
Gross profit	New	21,482	23,028	22,501	22,437	22,961	23,699		
% change	-	0.0%	1.1%	2.6%	2.0%	1.7%	2.9%		
Gross Margin	Old	77.9%	79.1%	78.7%	78.3%	77.1%	75.9%		
Gross Margin	New	77.9%	78.7%	78.3%	77.8%	76.8%	75.7%		Reduced for FX, higher heparin costs. Compensated for by higher SG&A cuts
Basis points change	-	+0	-40	-39	-49	-25	-26		
EBIT	Old	9,761	11,203	10,448	10,479	10,845	11,003	2.4%	
EBIT	New	9,761	11,282	11,017	11,032	11,092	11,586	3.5%	
% change	-	0.0%	0.7%	5.5%	5.3%	2.3%	5.3%	1.1%	
EBIT Margin	Old	35.4%	38.9%	37.5%	37.3%	37.0%	36.3%		
EBIT Margin	New	35.4%	38.5%	38.3%	38.2%	37.1%	37.0%		Increase due to better EM assumptions, higher vaccines margin
Basis points change	-	-0	-35	+86	+96	+10	+70		
EBITDA	Old	11,124	12,658	12,215	12,289	12,699	12,902		
EBITDA	New	11,124	12,761	12,833	12,890	12,994	13,533		
% change	-	0.0%	0.8%	5.1%	4.9%	2.3%	4.9%		
Adjusted net income	Old	7,068	8,306	7,944	8,130	8,109	8,173		
Adjusted net income	New	7,068	8,504	8,524	8,699	8,544	8,954		
% change	-	0.0%	2.4%	7.3%	7.0%	5.4%	9.6%		
Diluted Adj EPS Excl Selected One-offs	Old	5.46	6.35	6.08	6.22	6.20	6.25	2.7%	
Diluted Adj EPS Excl Selected One-offs	New	5.46	6.50	6.52	6.65	6.53	6.85	4.6%	EM worth 2%, 3% and 5% in '11-13. Remainder due to Merial long-term and Lovenox and H1N1 in '09 & '10
% change	-	0.0%	2.4%	7.3%	7.0%	5.4%	9.6%	1.9%	

Source: Company Reports, Citi Investment Research and Analysis

Merial An Attractive Deal

The major change that we make to our forecasts is the inclusion of the Merial deal. As a base case we assume that the option to combine Merial with ISP is taken and closes late 2010. We assume this as the CEO has indicated a >50% chance that the deal occurs.

As we highlighted when the deal was announced the buyout of the whole of Merial (the animal health business JV with Merck & Co) is an attractive deal in our view. Not only does it increase the profit from non pharma business but the deal is expected to be accretive to the tune of 3% in 2012.

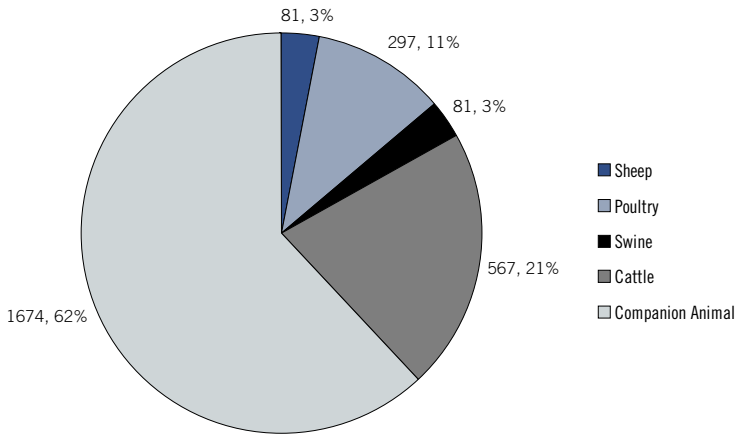
In addition the option to combine Merial with ISP and take 50% of the combined business is also highly attractive as it provides a more diversified revenue stream and increases this accretion to 4-5% in 2013E, we do not assume any divestments at this stage.

In our new EPS we assume that the option to combine Merial with ISP is taken up and we include the new combination in our income from associates estimates. This adds 2-4% to our 2011-2013E EPS.

Merial Business Mix Attractive

Merial has 2008 revenues of $2.7bn with 62% of this in the companion animal segment i.e. pets. This is a more attractive and faster growing segment than the production animal business. As such Merial's margins of c.30% are higher than the average low-mid 20's for the overall animal health market.

Figure 11. Merial Sales Split (Sales in $m)



Source: Company Reports

Frontline The Key Brand, Patent Expiry Effect Marginal

Frontline (fleas and tick treatment) is the key brand for Merial. It contributes c.$1bn in total in sales. The patent expires on the single formulation in 2010, this accounts for just one third of total Frontline sales. The remainder of sales is a combination formulation which is protected through 2017.

Generic erosion in this market is unlike traditional branded drug erosion and more like OTC erosion of c.10% p.a. As such this upcoming expiry should provide only a small drag of c.$33m or c.1% of total sales p.a. While this may slow growth we estimate it is not enough to make Merial ex-growth.

Tax Benefits Useful Upside If Merial Not Combined With ISP

SASY stated on the conference call that tax benefits are available from the full ownership of Merial. The current tax rate incurred by SASY as part owner of Merial is 32-33%; this could be reduced to c.23% once SASY assumes full ownership adding to the accretion profile by 30-40bps in 2012.

However, we assume this would cease if the option to combine with ISP was taken up. As we assume this option is taken we include no tax benefits in our assumed forecasts.

Value & EPS Accretive

We calculate that EPS accretion from Merial alone would be 2-3% by 2012/13E. We use a cost of finance of 4.5%, assuming SASY uses debt.

Figure 12. Merial 100% Buyout Accretion Calculation (€m)

	2008	2009E	2010E	2011E	2012E	2013E
Sales	1,762	1,797	1,833	1,870	1,907	1,945
Sales Growth		*2%*	*2%*	*2%*	*2%*	*2%*
EBIT	511	521	532	542	553	564
EBIT Margin	*29%*	*29%*	*29%*	*29%*	*29%*	*29%*
Tax Rate	*23%*	23%	23%	23%	23%	23%
Merial Net Income	393	401	409	418	426	434
SASY Share of Net Income Bought In (50%)		30	205	209	213	217
Finance Cost		18	95	45	9	0
Net Accretion/Dilution		12	110	164	204	217
Accretion as % Net Income		0%	1%	2%	3%	3%

Source: Company Reports, Citi Investment Research and Analysis

As EPS accretion is just a proxy for value creation, we also calculate the IRR of the deal to be 7% (conservatively assuming 0% terminal growth). Considering the cost of finance is not likely to be more than 4.5%, we estimate this deal is both EPS and shareholder value accretive.

ISP + Merial Combination Even More Attractive

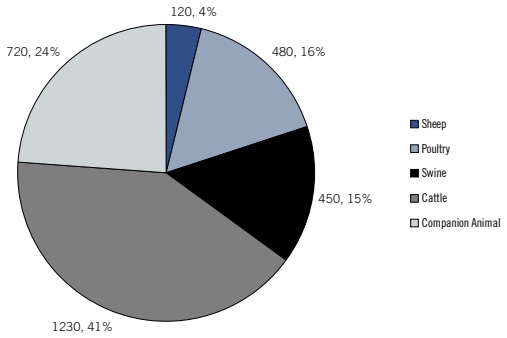
In signing the deal to buyout the rest of Merial, SASY also has the option to combine Merial with Inervet-Schering-Plough (ISP) and take 50% of the combined larger business. The deal would require SASY to make a cash payment of c.$750m to Merck. We expect this to be exercised later in 2009 but with closing of the combination in mid-late 2010.

We view the potential exercise of the option to combine Merial with ISP as highly attractive for the following reasons:

- **Diversified revenues** – ISP revenues are more focused on producing animals as opposed to pets (Figure 13). Only 24% of its revenues come from pets compared with 62% for Merial. As such combining the two business makes for a more balanced business (Figure 14), especially with the Frontline patent expiries.

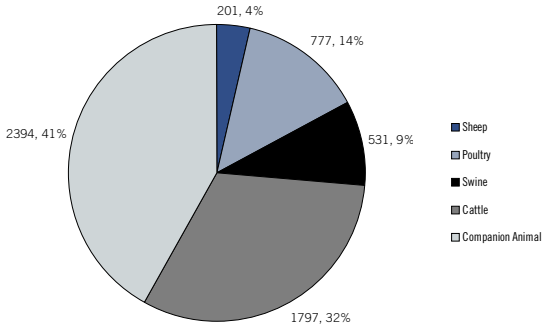
- **Synergies** – With combined costs of €3bn, we believe there is significant scope to cut costs. While there is limited overlap in business types which may limit the cutting of sales forces at the very least admin and R&D costs could be reduced. We assume that 10% of the combined costs base is saved, this is typical of large pharma deals in the past.
- **Mid-Single Digit EPS Accretion** – With the combined businesses and assuming 10% of combined costs are cut then EPS accretion is c.6.5% by 2012/13 by our estimates.

Figure 13. ISP Revenue Split ($m)



Source: Company Reports

Figure 14. Merial + ISP Revenue Split ($m)



Source: Citi Investment Research and Analysis & Company Reports

Value & EPS Accretion

In this scenario (our base case) we see EPS accretion of c.4% in 2013E. We also see an IRR for the deal of c.6.5%

Figure 15. Merial + ISP Combination Accretion Calculation (€m)

	2008	2009E	2010E	2011E	2012E	2013E
Merial Sales	1,762	1,797	1,833	1,870	1,907	1,945
Sales Growth		*2%*	*2%*	*2%*	*2%*	*2%*
Merial EBIT	511	521	532	542	553	564
EBIT Margin	*29%*	*29%*	*29%*	*29%*	*29%*	*29%*
Intervet Sales	2,000	2,100	2,205	2,315	2,431	2,553
Sales Growth		*5%*	*5%*	*5%*	*5%*	*5%*
Intervet EBIT	460	483	507	533	559	587
EBIT Margin	*23%*	*23%*	*23%*	*23%*	*23%*	*23%*
Synergies			35	174	289	289
Combined EBIT	511	521	769	1,248	1,402	1,441
Tax Rate	*30%*	*30%*	*30%*	*30%*	*30%*	*30%*
Combined Net Income*	358	182	350	437	491	504
SASY Own Currently		182	186	190	194	197
SASY Bought In		14	164	247	297	307
Finance Cost		21	129	90	32	0
Net Accretion/Dilution		-7	35	157	265	307
Accretion as % Net Income		0%	0%	2%	3%	4%

Source: Company Reports, Citi Investment Research and Analysis. * Assumes ISP option closes from 3Q10

Upsides Could Drive Sector Average Growth

Our base case is already better than consensus but it does not assume a number of additional potential upsides that may turn out to drive faster growth and higher EPS through 2013 (and beyond). We examine those upsides and the effect on EPS growth and valuation in more detail.

- **On Market Upsides** - In conclusion we believe upsides exist from on market businesses; 1) achieving the emerging markets goal of doubling sales from 08-13, 2) doubling Lantus from 08-12, and 3) a delay to Lovenox generics. Risk adjusted these add a total of 2.5% to our base case 08-13E EPS CAGR of 5%. In a blue-sky scenario i.e. if all are realised they would add 3%.
- **Pipeline Upsides** - Additional upside from pipeline products also exists e.g. an early filing of breast cancer drug BSI-201 or approval of Ciltyri (sleep) that could drive add another 0.5% to 08-13E CAGR risk adjusted or 1.5% in a blue-sky scenario.
- **We See Long-Term Re Rating Potential** - Based on current CIRA estimates we see sector EPS CAGR of 7% in the 08-13E period. With base case EPS CAGR of 5% and risk adjusted upsides potentially lifting this in line with the sector's 7% we see further upside to SASY shares. On top of better EPS than consensus expects this could be the source for a long-term re-rating to close a large proportion of the current 20% discount to the sector P/E.

Sector Average Growth Within Reach

We examine the upsides that we see existing to our base case. Flexing these out highlights that sector growth and €4 of upside to our base case valuation could be achievable in our view. The following charts show the result of the potential upsides which are discussed in more detail later on.

Notably by far the largest upside contribution comes from emerging markets and Lantus. As both of these are on market opportunities under SASY's control they carry significantly lower risk than the others.

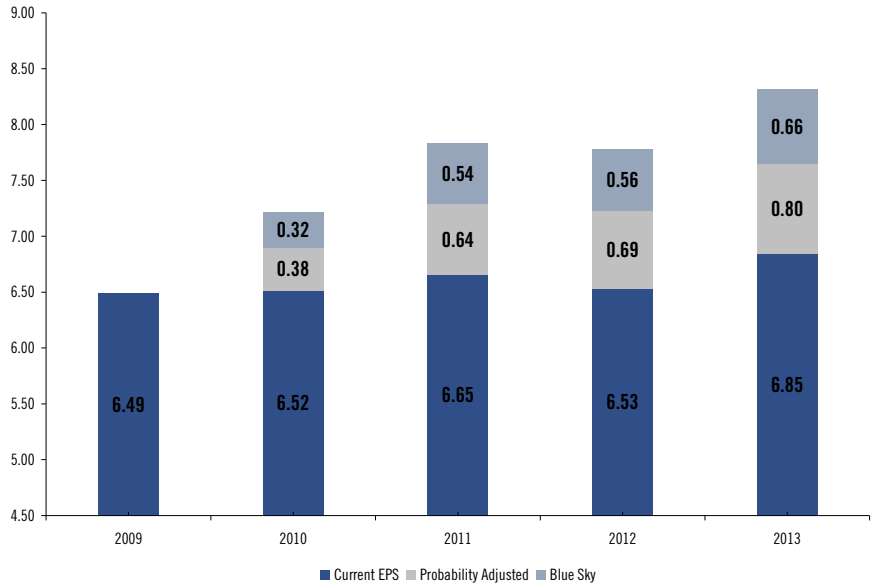
- Figure 16 shows the impact of the individual potential upsides on valuation, 2011E EPS and EPS CAGR (08-13E).
- Figure 17 shows the impact of the individual potential upsides on EPS from 2009-2013E.
- Figure 18 & Figure 19 show the incremental contribution of each potential upside to 08-13E CAGR using probability adjusted upside or blue sky upside respectively.

Figure 16. Impact of Upsides On Valuation, 2011E EPS and 08-13E EPS CAGR

Upside Flexes	2011E PE Value	NPV (DCF)	% 2011E EPS	Incremental 08-13E CAGR
EM Doubles From 08-13	1.4	2.6	2%	0.9%
Lovenox Generics Delayed	1.2	0.7	4%	0.7%
Lantus Doubles From 08-12	1.4	2.5	6%	1.3%
BSI-201 Filed Early	1.2	0.6	4%	0.7%
Ciltyri Approved 2010	0.5	3.5	2%	0.7%
Probability weighted total	**3.7**	**5.2**	**10%**	**2.4%**
Bluesky Total	**10.2**	**9.9**	**18%**	**4.4%**

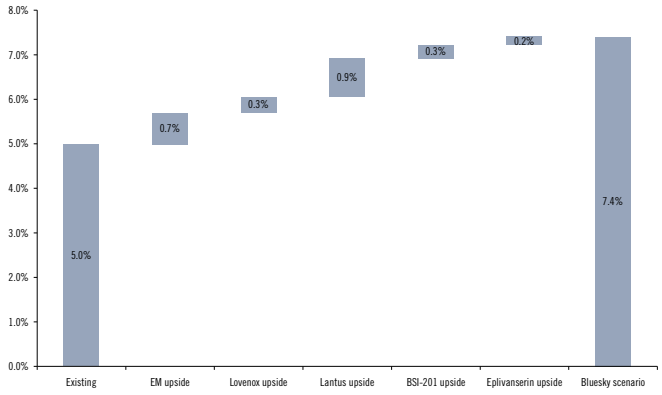
Source: Citi Investment Research and Analysis

Figure 17. Estimated EPS Profile With Probability Adjusted and Blue Sky Upsides



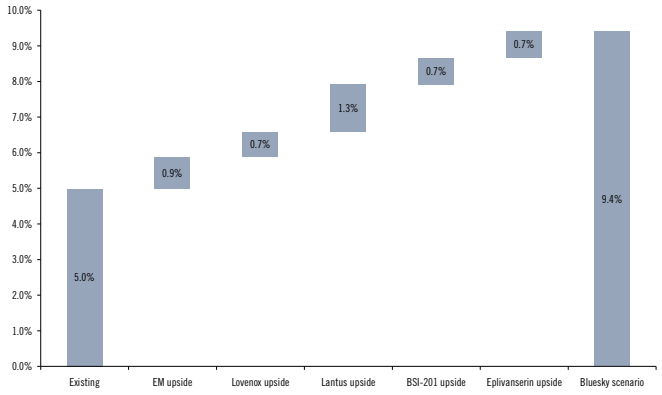
Source: Citi Investment Research and Analysis

Figure 18. Probability Adjusted Impact on 08-13E EPS CAGR Of Upsides



Source: Citi Investment Research and Analysis

Figure 19. Blue Sky Impact on 08-13E EPS CAGR Of Upsides



Source: Citi Investment Research and Analysis

Emerging Markets Double To €13bn 08-13

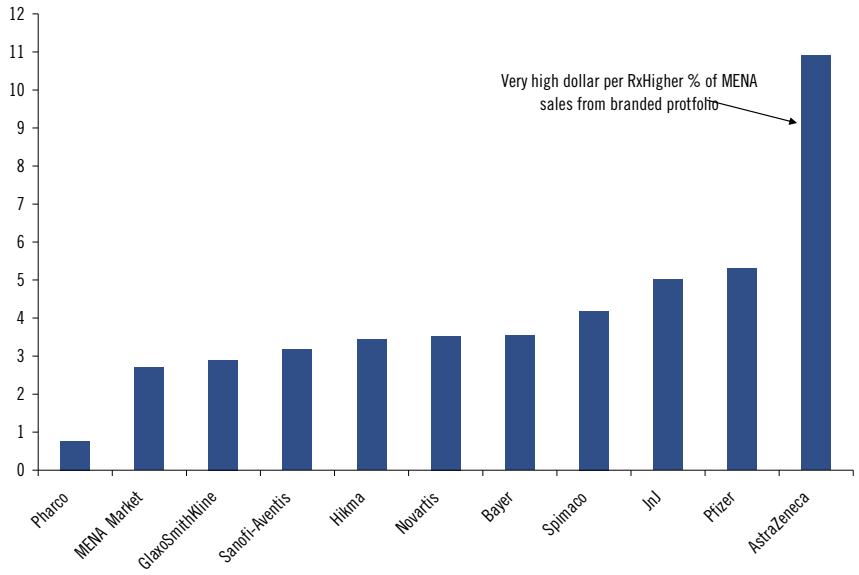
EM Key To Offsetting Patent Expiries, SASY Well Positioned

The importance of emerging markets is now well known. Total EM drug sales are expected to increase by 12% p.a. from 08-13 to c.$280bn, according to IMS.

We believe SASY is well positioned to take its fair share of the growth as it has already established a leading franchise in these markets. Across all of EM SASY is ranked number 1 with a market share of 6%. The company is well positioned with its diversified offering of products that caters both for the low income and higher income brackets as well as OTC and vaccine markets.

We think this compares favourably with for example, the other European pharma name that has a significant patent cliff issue, AstraZeneca. AstraZeneca has a smaller tail products business, no generics franchise, a limited vaccines business and an emerging markets business more focused on high end branded products. This is evidenced by the fact that AstraZeneca's sales value per prescription in MENA is significantly greater than any of its peers (Figure 20).

Figure 20. Value per Prescription ($) In MENA Private Market



Source: Hikma Company Presentation

EM Upside To Forecasts

At the emerging markets (EM) seminar on July 2 management gave a clear goal to double emerging market sales from 2008's €6.5bn to €13bn in 2013. This superseded the previous goal of a 50% increase in emerging markets sales in pharma.

Management confirmed that this did not include assumptions about future acquisitions on the 2Q09 conference call. We assume it included the acquisition of Kendrick, Medley and Zentiva as these had already completed when the goal was given. Our old forecasts assumed the old goal of a 50% increase in pharma EM sales. Given that organic EM growth is likely to accelerate next year due to improving GDP conditions we now assume a 75% increase in group EM sales to get a better handle on company's likely true growth through this period.

Achieving this aspirational goal of doubling would result in upside to our assumption of a 75% increase in EM sales of €1.7bn in sales by 2013E (Figure 21). A doubling of EM sales in 5 years assumes a CAGR of 15%, this falls to 13% when including the acquisitions already made. Considering current growth in EM as a whole is in the mid-teens this appears ambitious but achievable without further M&A in our view. With further M&A this should be exceeded.

Figure 21. Emerging Markets Goal Implies €1.7bn Potential Upside To CIRA Estimates

Aspirational Goals	**2008**	**2013E**	**Growth**	**% Increase**	**08-13E CAGR**
Total EM Sales	6,540	13,080	6,540	100%	15%
Growth from Known M&A		1,345	1,345		
Organic Sales Growth Req'd	6,540	11,735	5,195	79%	13%
Current CIRA Assumptions	**2008**	**2013E**	**Growth**	**% Increase**	**08-13E CAGR**
Base Business EM Sales	2,813	4,419	1,606	57%	9%
Top 15 EM Sales	2,927	4,238	1,311	45%	8%
Pharma EM Sales	5,740	8,657	2,917	51%	9%
Vaccines EM Sales	800	1,400	600	75%	12%
Total	6,540	10,057	3,517	54%	9%
Upside To CIRA Estimates			**1,679**		

Source: Citi Investment Research and Analysis

In this analysis we flex out the upside from achieving the goal of doubling EM sales. We assume an operating margin of 30%, this is below the current pre-R&D margin of 45% for EM sales but allows for the fact that some of these sales may come from generics, vaccines and OTC sales which command lower margins.

Achieving this goal could add 4% to 2013E EPS and just over 1% to our 08-13E CAGR. We believe this upside is one of the most achievable given it requires execution in EM of currently marketed products.

Figure 22. Upside to EPS From Doubling EM Sales to €13bn by 2013E

Emerging Markets	**2009E**	**2010E**	**2011E**	**2012E**	**2013E**
Current Emerging Markets Sales	7,850	8,635	9,499	10,353	11,188
Current Growth	19%	10%	10%	9%	8%
SASY Target	7,850	9,122	10,499	11,759	13,003
Target Growth	20%	16%	14%	12%	11%
Upside to Sales	0	487	900	1,293	1,690
EBIT Margin	30%	30%	30%	30%	30%
Pre-Tax Profit Added	0	146	270	388	507
Tax rate	-29%	-29%	-29%	-29%	-29%
Post-tax profit effect	0	104	192	275	360
Shares	1,311	1,308	1,308	1,308	1,308
EPS effect	0.00	0.08	0.15	0.21	0.28
Accretion	**0%**	**1%**	**2%**	**3%**	**4%**

Source: Citi Investment Research and Analysis

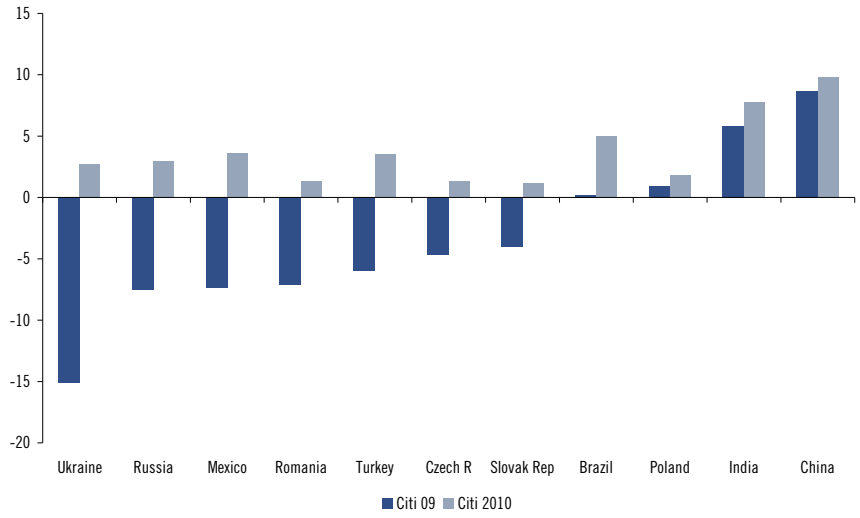
Is Organic EM Growth Too Slow?

As Figure 21 shows the organic EM sales CAGR is required to increase to 9% from the current 2009 growth of 7% to reach our forecast of 75% increase in EM sales. This appears reasonable based on improving GDP and growing drug spend that is likely to re-accelerate in 2010 and beyond.

Recently questions have arisen over whether the current rate of 7% organic EM growth for SASY is too slow to achieve the company's goals. If 7% were to be the prevailing rate for the next five years then this would be the case in our view.

However, we do expect EM Growth to re-accelerate next year and beyond. GDP growth is clearly subdued during 2009 in key emerging markets but is expected to tick up in 2010, see Figure 23. As drug spend is correlated with GDP we expect this to be reflected in EM growth for SASY and its peers.

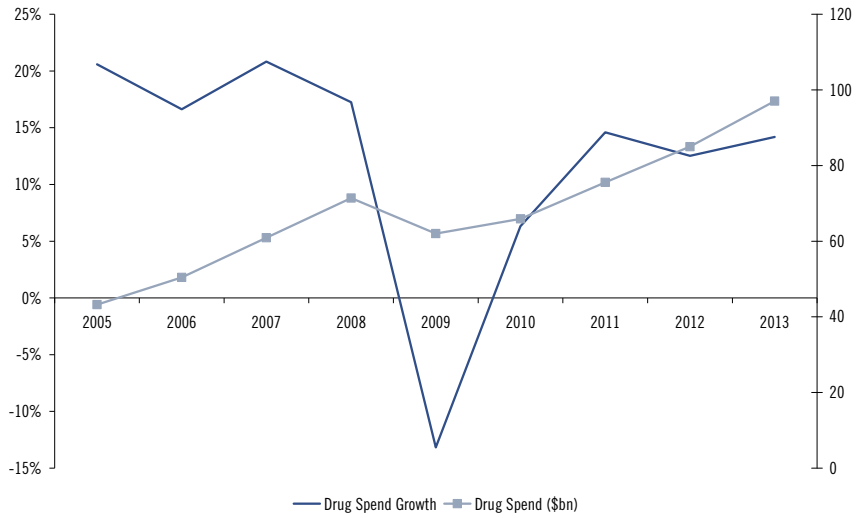
Figure 23. CIRA Emerging Economy GDP Growth (%) Forecasts



Source: Citi Investment Research and Analysis

This can be seen using prescription drug spend from a selection of CEEMEA countries. BMI forecasts a decline this year followed by growth in 2010, accelerating thereafter.

Figure 24. Drug Market Spend ($bn) & Growth In Basket of CEEMEA Countries



Source: Citi Investment Research and Analysis & BMI

Lantus Upside Overlaps With EM Upside

Part of the upside to Lantus forecasts that we highlight is due to emerging markets. Therefore some overlap may exist between the two outcomes. As such the total upside to EPS could be less than the sum of the two individual upsides. For example upside to EM Lantus sales of €500m would remove €500m of sales from our EM sales upside scenario. This would equate to just over 1% on 2013E EPS.

Lantus Doubling To €4.9bn From 08-12

Lantus Strategy

Management's goal for Lantus is to double sales from 2008-2012. They have stuck by this goal despite the recent possible 'cancer risk' issues raised in Diabetologia on June 26. 2008 sales were €2.45bn implying a 2012 goal of €4.9bn. This goal is to be driven by:

- Expansion into emerging markets (08 ROW sales were just €285m) and increasing insulinisation rates to Western levels.
- Increasing utilisation in the US where average utilisation is 37 IU/day compared with Europe's 47 IU/day.
- Increasing penetration through the earlier use of insulin in type 2 diabetics.

This strategy now also includes reinforcing the safety of Lantus following the issues raised in Diabetologia.

Effect on Lantus Rx Muted

The effect on Lantus prescriptions of the possible cancer risk has been relatively muted. However, total prescriptions have not grown since the registry data was published; although average 4 week y/y TRx growth is 9-10% this is primarily due to the growth posted during 1H09. As such for US volume growth to continue in 2010, we estimate SASY are going to have to reinvigorate the franchise.

Impact Of Studies on KOL's Prescribing Habits

We held interviews with several key opinion leaders following the Diabetologia publications and about half the KOL's we spoke with suggested they would change their practice and stop putting new patients on to Lantus.

Following this we reduced our forecasts to assume slower growth and we now assume 2012 Lantus sales of €3.8bn.

Clinical Data May Reassure

All the KOL's who said they would change their prescribing habits said they would reverse any change if subsequent well analysed data showed no specific issues. As such we believe that further data will be required to significantly re-accelerate Lantus TRx volume growth.

SASY has stated that it expects data to readout from clinical analysis of the potential Lantus cancer risk during late 2010/early 2011 and this maybe the point at which volume growth restarts in the US, providing upside to our forecasts which mostly reflect price growth in developed markets.

Is Doubling Realistic?

In order to achieve a doubling from 08-12 a CAGR of c.19% is required. Our current expectations for reported growth for 2009 are 26%.

If we assume our forecasts are correct for 2009 then the CAGR required through to 2012 is 16% to achieve €4.9bn in sales. The question is whether this is realistic?

We currently assume a 55% increase in sales from 08-12 to reach €3.8bn. Figure 25 shows how SASY could achieve this without significant volume growth in developed markets. We take this view as pending further data TRx growth maybe challenging.

Figure 25 also shows how an increase in volume from the general increase in diabetes prevalence, capturing growth from the human insulin to analogue switch and slightly better EM growth would achieve the company's goal of doubling.

Figure 25. Doubling of Lantus Could Be Achieved

Assumption	08-12E Increase in Global Sales	Cumulative Total Increase	
8% US Price Rise	21%	21%	
Increased US Utilisation to 47IU/day	21%	42%	
Emerging Market Growth Forecast	20%	62%	Current CIRA assumptions are at c.60%
Upsides			
Diabetes Prevalence	22%	77%	
EM Forecasts Reach EUR1bn	16%	94%	
Volume Growth From Move to Analogues in EUR/US at 2.5% p.a.	10%	104%	

Source: Citi Investment Research and Analysis

In addition to this SASY is trying to increase the earlier use of insulin in the treatment of type 2 diabetes, a move that is supported by medical guidelines. We do not include this in our calculations above but discuss it in more detail later on. Currently 15% of the target population of diabetics in Europe and the US get Lantus. If this was increased to 20% global sales would increase by c.30% or €800m by our estimates. We admit that this may take sometime as it represents a change in physician mindset. However, in totality these suggest that a doubling could be achieved easily, assuming that volume growth in developed markets can continue.

US Pricing Helpful

7-10% annual price increases from 08-12 could allow for growth in the US of 30-45% over 4 years. This alone would contribute 18-27% towards global growth over 4 years. Although price rises can't be relied on to continue forever the last 3 years price increase, including 2009, in the US have been 10-12% p.a for Levemir and Lantus. This suggests the market still has plenty of pricing power.

Any gains from volume above this would be further upside that may contribute significantly to achieving a doubling of sales.

Increased Utilisation

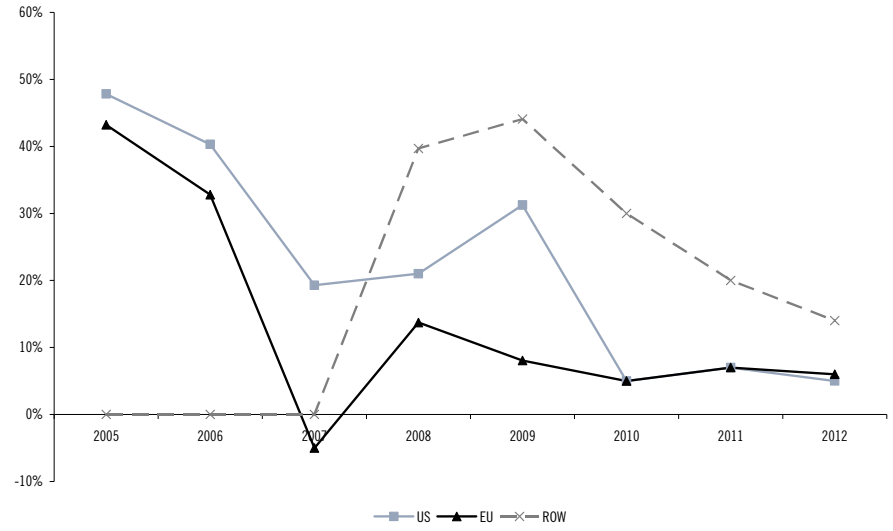
Increasing utilisation of insulin amongst those patients who are already taking it to the European average of 47IU/day should also be beneficial to sales. This would increase global sales by 21% of 2008 levels.

Emerging Markets

Our current forecasts assume Lantus EM sales approximately rise 2.5x from €285m in 2008 to €730m in 2012. This is CAGR of 23% ahead of the growth in EM in general of mid-teens but it is currently growing at c.40%. This alone contributes about 20% to the global growth from 08-12E. However, if one was to assume EM Lantus sales became €1bn in 2012 this would be closer to 30%.

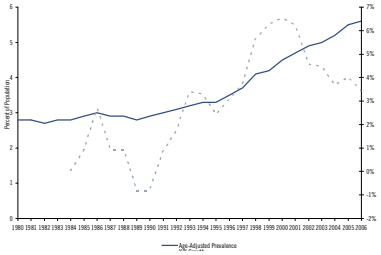
Figure 26 shows how we currently forecast growth for Lantus sales in the ROW. As can be seen from the dashed line we have a significant slowdown in growth reflected in our current numbers which is a reflection of our conservative estimates, the risk looks firmly to the upside in our view.

Figure 26. Lantus Sales Growth (Reported) – Actual Growth 05-08 & CIRA Forecasts 09-12



Source: Citi Investment Research and Analysis & Company Reports

Figure 27. Diabetes Prevalence



Source: CDC

General Prevalence

According to the CDC (Figure 27) the growth in the prevalence of diabetes in the US has bean steady at 4-5% per year. As such the population of target diabetics in 2012 should be 17% bigger. While many of these patients will be "new" patients being treated with first line oral drugs a resulting number of more resistant patients should progress on to insulin therapies.

In EM there is a significant number of diabetics, many undiagnosed but also those diagnosed experience under usage of insulins due to limited guidelines etc. The rate of increase in diabetics has been at least as fast as the US in recent years and for example, the number of diabetics in China is 3x more than in the US.

Modern Insulin Switch

The switch from old insulins to modern analogues is still progressing but reaching significant levels in developed markets. In Europe it is at 60% and in the US 70%. Novo Nordisk believes that aims for 5% global insulin growth p.a. comes from this dynamic and we expect this to continue for the medium-term.

A larger share of growth is likely to come from China where the larger diabetic population is still underpenetrated with analogues e.g. Novo nordisk estimates c.20% of the insulin market in China is using analogues.

However, increased usage from both the general prevalence and capturing switching from old insulins to analogues requires SASY to drive TRx growth. As we highlight above this may require clean data from its own analyses to do this.

Increasing Penetration in Developed Markets

According to SASY there are 24m diabetics diagnosed in the US and Europe. 70% are on oral anti-diabetic medicines and 50% of these are poorly controlled. Of these 60% are eligible for Lantus. That leaves a target population of 5.3m and 3.2m respectively in the US and Europe.

SASY estimates that about 15% of these currently get Lantus. As shown in Figure 28 Increasing this to 20% would lift Lantus global 2008 revenues by c.30% and lifting it to 25% would lift revenues by c.60%. We acknowledge that achieving this may require a clean set of clinical data from database reviews but nonetheless this is additional potential upside to those highlighted above.

Figure 28. Sales Uplift From Earlier Penetration Of Diabetics in US & EU

	%	US	EU	Total
Diabetics (m)		15	9	24
OAD Treated (m)	70%	10.5	6.3	16.8
Poorly Controlled (m)	50%	5.3	3.2	8.4
Eligible for Lantus (m)	60%	3.2	1.9	5.0
Currently Getting Lantus (m)	15%	0.5	0.3	0.8
Patients @ Better Penetration	20%	0.6	0.4	1.0
Patients @ Better Penetration	25%	0.8	0.5	1.3

Effect on 2008 Global Sales	**20% Penetration = 29% Lift to sales** **25% Penetration = 59% Lift to sales**

Source: Citi Investment Research and Analysis

Upside From Lantus Doubling

Figure 29. Potential Upside to EPS from Lantus Doubling

Lantus	2009E	2010E	2011E	2012E	2013E
Global sales: base	3,087	3,344	3,647	3,896	4,100
Uplift	0%	10%	19%	28%	31%
Sales Lost	0	334	693	1,091	1,271
Total Sales	3,087	3,678	4,340	4,987	5,371
Sanofi profit effect	65%	65%	65%	65%	65%
Pre-tax profit effect	0	217	450	709	826
Tax rate	-29%	-29%	-29%	-29%	-29%
Post-tax profit effect	0	154	320	503	587
Shares	1,311	1,308	1,308	1,308	1,308
EPS effect	0.00	0.12	0.24	0.38	0.45
Accretion to EPS	**0%**	**2%**	**4%**	**6%**	**7%**

Source: Citi Investment Research and Analysis

Delay To Lovenox US Generics

Generics Assumed 4Q10

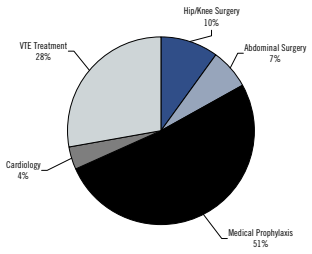
Our current assumption on Lovenox is conservative and we assume that it genericises from 4Q10 in the US. While risks remain evenly balanced as to the approvability of a generic version we simply assume that one is approved. On the other hand the EMEA's decision to require clinical trials may also push the FDA into a similar decision.

Upside therefore exists from either a request from FDA for clinical trials or rejection of the generic versions at FDA. Any requested clinical trials will likely be large, requiring thousands of patients to provide comfort over both safety and efficacy. The duration of delay could be at least 18 months with additional review time at FDA on top of this. Depending on the number of patients required to monitor safety events which generally have low event rates this delay could be longer.

Upside Scenario From Generics Delay

The upside potential we see to a delay in generic Lovenox until 2013 is highlighted in Figure 31. We discuss aspects of this further on.

Figure 30. Lovenox Sales Split By Indication



Source: Citi Investment Research and Analysis

Figure 31. Potential Upside From Delay To Generic Lovenox

Lovenox	2009E	2010E	2011E	2012E	2013E
US Sales : Generics Assumed	1,808	1,842	1,129	782	676
US sales Gained	0	4	350	550	5250
US Sales ex Generics	1,808	1,846	1,479	1,332	1,201
Sanofi profit effect	85%	85%	85%	85%	85%
Pre-tax profit effect	0	3	298	468	446
Tax rate	-29%	-29%	-29%	-29%	-29%
Post-tax profit effect	0	2	211	332	317
Shares	1,311	1,308	1,308	1,308	1,308
EPS effect	0.00	0.00	0.16	0.25	0.24
Accretion	**0%**	**0%**	**2%**	**4%**	**4%**

Source: Citi Investment Research and Analysis

In considering an upside scenario we flex out a delay to generic Lovenox until after 2013, just over three years from now.

To derive an ex-generics sales figure for Lovenox we make assumptions about the erosion from the oral anticoagulants that are currently in development that may compete with *Lovenox*; in particular Bayer's Xarelto and Boehringer Ingelheim's Pradaxa (dabigatran).

The indications that Lovenox is approved for are displayed in Figure 30 along with an approximate sales split per indication. The ability of oral drugs to compete in these indications is dependent not only the relative efficacy and safety but also whether oral delivery is feasible and brings significant benefits.

The main determinant of erosion (excluding any generics) is the level of competition in the prophylaxis of DVT/PE in the medically ill patients and the treatment of DVT/PE settings together these account for c.80% of Lovenox sales. Our assumptions are in Figure 32.

Figure 32. Lovenox Ex-Generics Sales Calculation

		2009E Sales				2013E Sales		
	% of Sales	US	Europe	US + EU	Erosion by 2013	US	Europe	US + EU
Hip/Knee Surgery	10%	181	90	270	65%	63	31	95
Abdominal Surgery	7%	127	63	189	30%	89	44	132
Medical Prophylaxis	51%	922	456	1,379	25%	692	342	1,034
Cardiology	4%	72	36	108	50%	36	18	54
VTE Treatment	28%	506	251	757	35%	329	163	492
Total	**100%**	**1,808**	**895**	**2,703**		**1,209**	**598**	**1,807**

Source: Citi Investment Research and Analysis

Medically Ill – 51% of Sales

This group of patients includes a diverse group of patients that are generally admitted to hospital, sedentary for >3 days and have a risk of thromboembolism. In the clinical trials this includes patients admitted with acute respiratory failure, acute infections, heart failure and other acute indications. Some of these patients will be in intensive care units.

In certain patients with these conditions an oral tablet may not be feasible e.g. due to unconsciousness or severe pain. Therefore this is a key determinant of erosion to Lovenox sales from oral anticoagulants. Warfarin is not used here in this setting primarily due to difficulties in ensuring the right level of anticoagulation quickly and easily as well its drug interactions and issues in patients with impaired liver function. As many patients in this setting have renal insufficiency or failure, Pradaxa (dabigatran) which is not used in patients with renal failure, is not being tested here. However data for this setting for Xarelto will be available mid-2010 with an approval potentially by mid 2011.

As Xarelto is priced for use in the chronic setting in patients with atrial fibrillation it is likely to be significantly cheaper than Lovenox in the medical ill setting (c.45%) providing a significant cost advantage to payors.

Given restrictions apply on the proportion of patients eligible for oral therapy we estimate that erosion in this setting by 2013, 2 years after any potential launch of Xarelto, would be no more than 25% of the medically ill patients currently treated by Lovenox. As thromboprophylaxis is not used in a large proportion of recommended situations Xarelto may have an opportunity to further expand the market with its cheaper cost.

VTE Treatment – 28% Sales

The treatment of DVT/PE that has already occurred is undertaken with the aim of preventing recurrence and propogation of further thrombosis. In general these patients form a less sick population than the medically ill, as such they maybe more eligible for oral therapy.

We estimate that approximately 50% of patients who receive LMWH for treatment of VTE are eligible for outpatient treatment. Given that Xarelto is oral vs Lovenox's subcutaneous dosing and is significantly cheaper than Lovenox (c.40% in this indication) then there is likely to be significant desire to use it in the outpatient setting.

As such we see the potential for more significant competition. Data from the Xarelto EINSTEIN trials is due in 1Q2010 and approval potentially may come mid 2011. We conservatively see erosion by 2013E of 40% of Lovenox sales in this setting.

Ciltyri Optionality Could Drive Upside

We see Ciltyri as optionality on the pipeline. The potential for the drug could be significant, €1-2bn, but it is high risk due to the nature of pipeline products in sleep plus the mixed phase III results it has shown.

Ciltyri is an agent treating patients who wake up after falling asleep. It is not a hypnotic that induces sleep like traditional sleeping tablets. It helps prevent waking, has less next day effects than hypnotics and is believed to be less addictive.

SASY recently received a complete response letter from FDA. The letter cited the need to further address the risk benefit profile, although little detail was given by the company and they present a conservative stance over the drug's approvability.

The complete response letter is not surprising given the mixed results in the phase III trials. Our expectations are low for this drug, we see sales of just €150m/234m by 2012/2013 and we believe the market's expectations for this drug are also low as the share price reaction to the FDA's complete response was muted. However, we flex out the upside from any potential surprise approval.

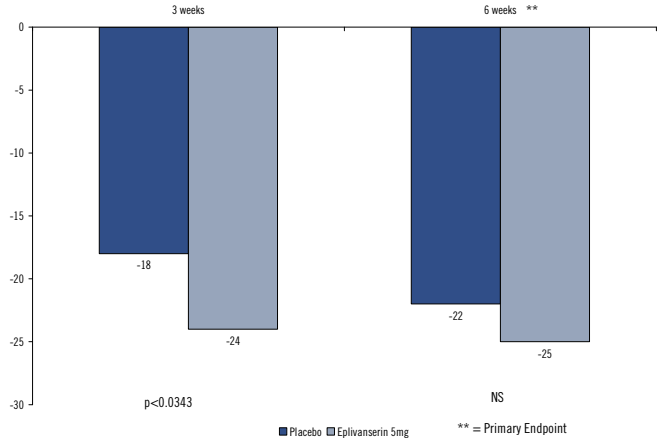
Poor Polysomnography Data The Key To Complete Response?

Phase III data seen so far has been mixed:

- One key trial failed its primary endpoint (EPOCH) - Figure 33 & Figure 34
- Two trials met primary endpoints (EPILONG & GEMS) - Figure 35 - Figure 38

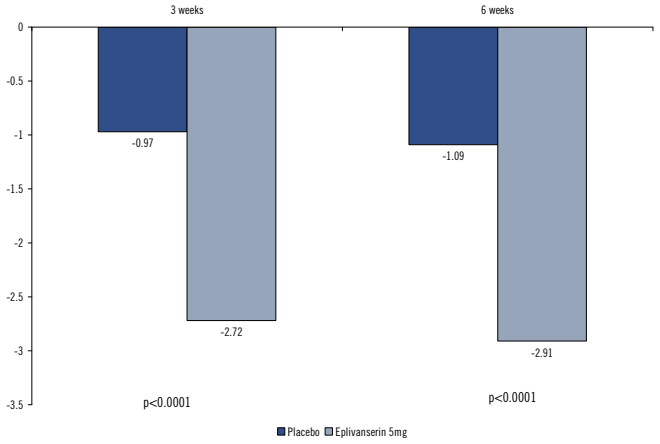
The key measure used in the eplivanserin trials has been WASO (Wake After Sleep Onset). This measures the length of time a patient is awake after initially falling asleep. The second measure is Number of Awakenings (NAW) i.e. the number of times a patient wakes up after falling asleep for the first time.

Figure 33. EPOCH Trial WASO Data (change from baseline) Did Not Meet Primary Endpoint– Measured by polysomnography



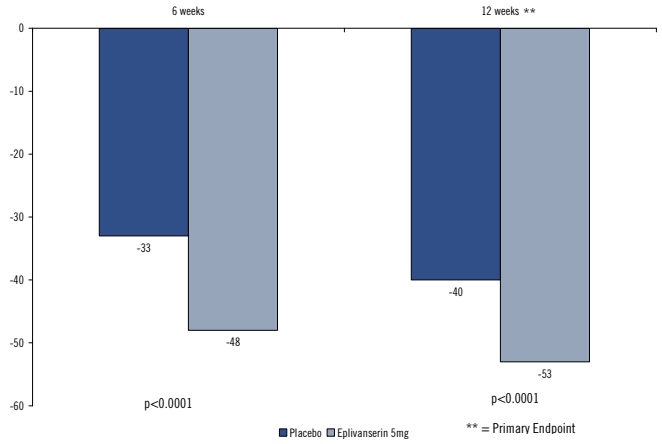
Source: Company Reports, WASO=Wake after sleep onset. NS=not significant P>0.05

Figure 34. EPOCH Trial NAW Data (change from baseline)– Measured by polysomnography



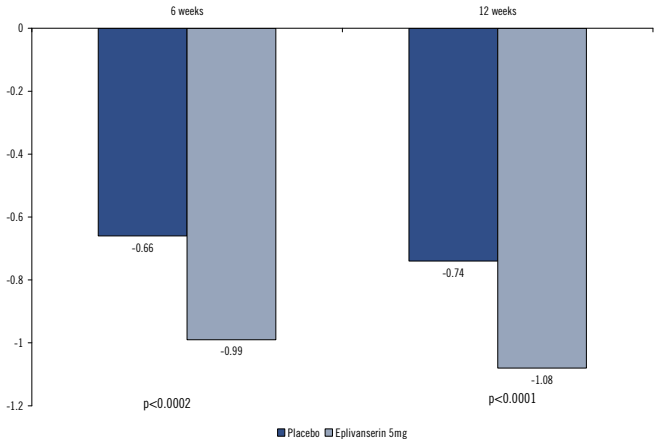
Source: Company Reports, NAW=No. of awakenings

Figure 35. EPILONG WASO Data (change from baseline) Met Primary Endpoint – Measured by patient reporting



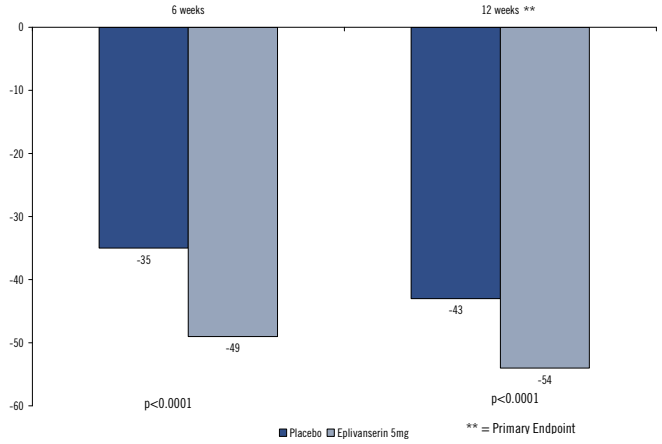
Source: Company Reports, WASO=Wake after sleep onset

Figure 36. EPILONG NAW Data (change from baseline) – Measured by patient reporting



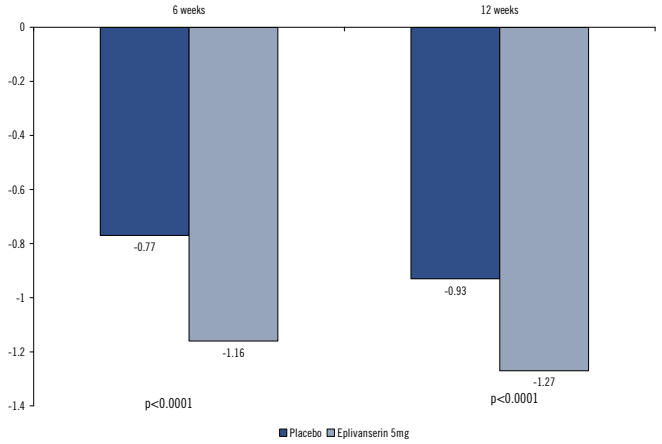
Source: Company Reports, NAW=No. awakenings

Figure 37. GEMS WASO Data (change from baseline) Met Primary Endpoint – Measured by patient reporting



Source: Company Reports, WASO=Wake after sleep onset

Figure 38. GEMS NAW Data (change from baseline) – Measured by patient reporting



Source: Company Reports, NAW=No. awakenings

Will Patient Reported Endpoints Be Enough?

Of the two trials that have reported data only one (EPOCH) uses polysomnography (PSG) to measure the outcomes, the other uses patient reported (Pr) efficacy.

Importantly, EPOCH was a failed trial so SASY have no trials that showed a benefit on the primary endpoint using polysomnography. The EPOCH study did meet secondary endpoints such as WASO at 3 weeks (6 week measurement was the primary endpoint) and NAW but the missing of a primary endpoint is classed as a failed trial.

This maybe one of the reasons for the FDA's complete response and we think it is likely SASY will submit the results of two recently completed trials to support the risk-benefit ratio. If no other data is required a response could be supplied relatively quickly with a 6 month review time. However, requests for other data/studies may slow resubmission time.

We note that FDA guidelines (from 1997) state that a mixture of PSG and patient reported data should be generated but they do not specify how many or the extent of positive outcomes for each type. *Ambien CR* was approved on mixed data but we expect that FDA's line to be tougher now, especially as sleep maintenance as a stand alone indication is new.

Recently Completed Studies May Help SASY's Case

Figure 39 shows the recently completed studies for Ciltyri, neither of which were submitted with the original NDA. One (Eclipse) is a polysomnography study with a 6 week primary endpoint. This may be sufficient to answer FDA's queries if it returns a positive result and help negate the negative result of the EPOCH study.

We would expect any response to FDA to contain this and the completed DREAMS study which compares the next day effects of Ciltyri with a traditional hypnotic, benzodiazepine. If DREAMS is positive it may support a label for reduced next day effects compared with traditional drugs.

Figure 39. Recently Completed Ciltyri Studies Not Submitted With NDA

Study	n=	Completed	Submitted FDA?	Study Aim	Placebo	Active	Primary Endpoint
DREAMS	266	Mar-09	N	Compare next day residual effects of the two drugs	Benzodiazepine (Lormetazepam)	Eplivanserin	Sleepiness in the morning on visual analog scale questionnaire after 4 weeks of treatment
Eclipse	600	Jun-09	N	Efficacy of Eplivanerin vs Placebo using polysomnography	Placebo	Eplivanserin	The WASO and NAW vs placebo measured using polysomnography at 6 weeks

Source: Company Reports, Citi Investment Research and Analysis

Labelling Upsides May Exist

Improving Daytime Activity

The best potential indication for eplivanserin is an indication of "improving daytime activity". This would give SASY a strong marketing message however; there is no ratified way to measure this endpoint. This is unlikely to come at any first approval and will be a supplementary application.

Lack of Next-Day Effects

The EPOCH study has shown that the next-day residual effects are not significant. This should help improve the positioning of the drug in the market and contribute to a claim for improving daytime activity. Also in EPILONG the incidence of memory impairment and depression has shown to be reduced in with eplivanserin.

Additionally, as highlighted above, the DREAMS study is comparing Ciltyri with lormetazapam, a benzodiazepine, on patients sleepiness in the morning after treatment with the drugs. This and other secondary endpoints are aimed at showing a differential effect between the two drugs on next day effects.

Lack of Withdrawal Effects After Discontinuation

The EPOCH study has also shown that there is a lack of withdrawal effects often associated with insomnia drugs e.g. stomach cramps, dysphoria, sweating, tremors, nausea, flushing and panic attacks. A lack of these effects would also provide a significant marketing advantage over traditional hypnotics. A lack of dependency and addiction could also lead to a lighter scheduling status and less of a social stigma.

High Risk, High Reward

While the asset remains high risk due to it being a CNS drug in a new indication and having mixed phase III data it does have the potential for high reward. The sleep maintenance market is significant and remains under treated. It could easily be a blockbuster, although achieving this will depend upon the final label and the results of the next day effects trials.

Figure 40. Ciltyri Peak Sales Calculation

50	Total sleep maintenance population (m)
25	50% with fragment sleep (m)
4.95	Daily price of Lunesta ($)
45,169	Maximum market (with 365 days usage) ($m)
60%	% of symptomatic patients
25%	% of patients treated (OTC + RX)
6,775	Total treated market ($m)
35%	Max penetration
2,371	Peak Potential ($m)
1.47	USD/EUR FX Rate
1,613	**Peak potential (EURm)**

Source: Citi Investment Research and Analysis/Company Reports

Upside to EPS

We model the potential upside to EPS based on a steady ramp for Ciltyri globally assuming approval and launch in 2010E.

Figure 41. Potential Upside from Ciltyri Approval in 2010 (€m, EPS in €)

Ciltyri	**2009E**	**2010E**	**2011E**	**2012E**	**2013E**
Global sales: base	0	18	72	150	234
New sales (added globally)	0	60	400	500	700
Sales gained	0	78	472	650	934
Sanofi profit effect	70%	10%	40%	50%	65%
Pre-tax profit effect	0	6	160	250	455
Tax rate	-29%	-29%	-29%	-29%	-29%
Post-tax profit effect	0	4	114	178	323
Shares	1,311	1,308	1,308	1,308	1,308
EPS effect	0.00	0.00	0.09	0.14	0.25
Accretion %		**0%**	**1%**	**2%**	**4%**

Source: Citi Investment Research and Analysis

An Early Filing For BSI-201

Strong Data At ASCO

The PARP inhibitor BSI-201 acquired with the BiPar acquisition earlier in 2009, showed exceptional results in the phase II data presented at ASCO in triple negative breast cancer (Figure 42).

Figure 42. BSI-201 Phase II Results Show Significant Benefit in Triple Negative Breast Cancer

	Chemo	**BSI-201**	**Hazard Ratio**	**p**
Progression Free Survival	3.3	6.9	0.342	p<0.0001
Overall Survival	5.7	9.2	0.348	p=0.0005
Objective Response Rate	16%	48%	-	p=0.002
Clinical Benefit Rate (response> 6 mos)	21%	62%	-	p=0.0002

Source: ASCO Presentation

Is An Early Filing Possible?

This phase II study is due to complete later this year and we expect the strong interim result to be confirmed on the final analysis (to be presented at San Antonio Breast Cancer Conference Dec 9-13) . Although this study is a phase II trial, and a phase III has been initiated there remains the possibility that BSI-201 could be filed early on phase II data alone.

The conditions for a regular NDA approval with one clinical trial are as follows:

- Large multi-center site study, no disporportionate contribution from one site
- Consistency across subsets
- Multiple endpoints within study evaluating different events e.g. PFS and OS
- Very low p-values i.e. highly statistically persuasive

The results shown so far satisfy most of the criteria here, the only condition that may not be sufficient is the size of the study (120 patients) and the number of centers involved.

On the other hand, if the FDA is concerned about this, the drug maybe eligible for subpart H accelerated approval which allows for early approval of drugs demonstrating potential efficacy and safety while a confirmatory phase III study is run.

Typically the accelerated approval route uses a surrogate endpoint for clinical benefit e.g. progression free survival, response rate or QOL measures as evidence of potential benefit, then allows for confirmation of clinical benefit in the phase III results. Assuming a positive result then the approval is turned into a full approval.

However, the prolongation of life, as shown by BSI-201 is a clinically relevant endpoint and so it should be approvable in this process. Increasing overall survival is both an efficacy and safety endpoint of the highest quality i.e. it is the gold standard endpoint. Given this and the consistency of effect across other endpoints we see a favourable potential for this drug.

Our current expectation is for BSI-201 to be launched in 2012. If it were filed this year then it could launch by end 2010, we flex the upside to near term EPS from this scenario. In this analysis we assume that drug could be filed for conditional approval in Europe under the same circumstances.

Upside To EPS From An Early Filing

Figure 43. Potential Upside To EPS From An Early BS-201 Filing

BSI-201	2009E	2010E	2011E	2012E	2013E
Global sales: base	0	0	0	41	163
Sales gained	0	25	350	600	600
Total Sales	0	25	350	641	763
Sanofi profit effect	75%	75%	75%	75%	75%
Sanofi Share	100%	100%	100%	100%	100%
Pre-tax profit effect	0	19	263	450	450
Tax rate	-29%	-29%	-29%	-29%	-29%
Post-tax profit effect	0	13	186	320	320
Shares	1,311	1,308	1,308	1,308	1,308
EPS effect	0.00	0.01	0.14	0.24	0.24
Accretion to EPS	**0%**	**0%**	**2%**	**4%**	**4%**

Source: Citi Investment Research and Analysis

Sanofi-Aventis SA

Company description

Sanofi-Aventis is one of the largest global research-driven pharmaceutical companies. The company was created by the 2004 merger of Sanofi-Synthelabo and Aventis. The company has leading products in the field of cancer, cardiovascular disease and diabetes.

Investment strategy

SASY still trades at a 20% discount to the sector over fears of the genericisation of Lovenox and that the upcoming patent cliff from 2009-12 will not be manageable. While we see 5% EPS CAGR 08-13E vs the sector's 7% consensus has lower expectations of 1%. Our forecasts assume the worst case for patent expiries but reflect better potential for emerging markets and the underlying profit contribution from stable businesses e.g. vaccines, generics & OTC. In addition we see further upside from pipeline and on market products that may drive EPS above our estimates. We are comforted by the new CEO's focus on costs and believe that emerging markets and non traditional pharma business will help underscore that the patent cliff is manageable with only medium-sized M&A. Our rating is Buy/Medium Risk (1M).

Valuation

Our DCF model forecasts the business to 2017 and allows a greater appreciation of the pipeline. With a terminal growth rate of 0%, this gives us a valuation range of EUR66 now and when rolled forward by the WACC of 9%, gives a 12-month value of EUR72. On top of this we see upsides with a risk adjusted value of EUR5.

Our P/E valuation is EUR59 based on 2011E EPS using a PE of 8.8x, a 20% discount to today's 2009 sector P/E which more than adequately reflects our 08-13E EPS CAGR of 5% vs the sector at 7% in our view. Risk-adjusted our highlighted upsides are worth an additional EUR4 and may drive EPS CAGR in line with the sector.

We have a valuation range of EUR59-77 and set our 12-month target price at the multiple based valuation, including the upsides at EUR63.

Risks

We rate Sanofi-Aventis as Medium Risk based on our assessment of industry and company-specific risk factors. Its most profitable drug, Lovenox, faces early generic challenges in the US. Our P&L assumption is Sanofi will lose it to long-term generic competition from 4Q10. However, if the FDA approves generic versions of Lovenox, we would still expect the share price to fall initially. If further data is released on Lantus that highlights additional safety concerns, this would likely prevent SASY reaching our target price. Faster generic erosion than expected for Plavix in Europe may also drive downside as may underperformance of Multaq relative to expectations. A positive outcome for any of these risks would likely take SASY past our target price.

Notes

Notes

Notes

Appendix A-1

Analyst Certification

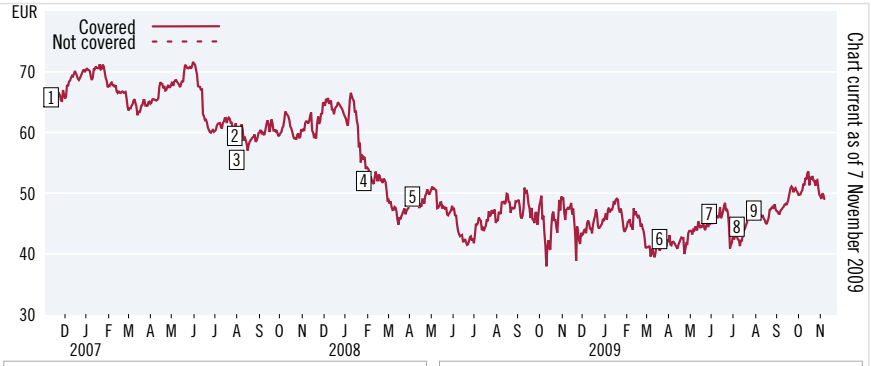
Each research analyst(s) primarily responsible for the preparation and content of all or any identified portion of this research report hereby certifies that, with respect to each issuer or security or any identified portion of the report with respect to an issuer or security that the research analyst covers in this research report, all of the views expressed in this research report accurately reflect their personal views about those issuer(s) or securities. Each research analyst(s) also certify that no part of their compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this research report.

IMPORTANT DISCLOSURES

Sanofi-Aventis SA (SASY.PA)

Ratings and Target Price History
Fundamental Research

Analyst: Mark Dainty, ACA
Covered since October 23 2008



	Date	Rating	Target Price	Closing Price
1	10-Nov-06	2M	*68.00	65.80
2	30-Jul-07	2M	*67.00	60.30
3	1-Aug-07	2M	*66.00	59.44
4	28-Jan-08	2M	*61.00	55.96
5	4-Apr-08	2M	*54.00	49.42
6	19-Mar-09	2M	*46.00	40.52
7	28-May-09	*1M	*50.00	45.02
8	7-Jul-09	1M	*49.00	42.78
9	30-Jul-09	1M	*54.00	47.05

* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Within the past 12 months, Citigroup Global Markets Inc. or its affiliates has acted as manager or co-manager of an offering of securities of Sanofi-Aventis SA.

Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from Sanofi-Aventis SA.

Citigroup Global Markets Inc. or its affiliates expects to receive or intends to seek, within the next three months, compensation for investment banking services from Sanofi-Aventis SA.

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from Sanofi-Aventis SA in the past 12 months.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as investment banking client(s): Sanofi-Aventis SA.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, securities-related: Sanofi-Aventis SA.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, non-securities-related: Sanofi-Aventis SA.

Rohini Malkani has in the past worked with the India government or its divisions in her personal capacity.

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability which includes investment banking revenues.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Investment Research & Analysis product ("the Product"), please contact Citi Investment Research & Analysis, 388 Greenwich Street, 29th Floor, New York, NY, 10013, Attention: Legal/Compliance. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at www.citigroupgeo.com. Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

Citi Investment Research & Analysis Ratings Distribution

Data current as of 30 Sep 2009	**Buy**	**Hold**	**Sell**
Citi Investment Research & Analysis Global Fundamental Coverage	44%	38%	18%
% of companies in each rating category that are investment banking clients	47%	45%	36%

Guide to Citi Investment Research & Analysis (CIRA) Fundamental Research Investment Ratings:
CIRA's stock recommendations include a risk rating and an investment rating.
Risk ratings, which take into account both price volatility and fundamental criteria, are: Low (L), Medium (M), High (H), and Speculative (S).
Investment ratings are a function of CIRA's expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating.

For securities in developed markets (US, UK, Europe, Japan, and Australia/New Zealand), investment ratings are:Buy (1) (expected total return of 10% or more for Low-Risk stocks, 15% or more for Medium-Risk stocks, 20% or more for High-Risk stocks, and 35% or more for Speculative stocks); Hold (2) (0%-10% for Low-Risk stocks, 0%-15% for Medium-Risk stocks, 0%-20% for High-Risk stocks, and 0%-35% for Speculative stocks); and Sell (3) (negative total return).

Investment ratings are determined by the ranges described above at the time of initiation of coverage, a change in investment and/or risk rating, or a change in target price (subject to limited management discretion). At other times, the expected total returns may fall outside of these ranges because of market price movements and/or other short-term volatility or trading patterns. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. Your decision to buy or sell a security should be based upon your personal investment objectives and should be made only after evaluating the stock's expected performance and risk.
Guide to Citi Investment Research & Analysis (CIRA) Corporate Bond Research Credit Opinions and Investment Ratings: CIRA's corporate bond research issuer publications include a fundamental credit opinion of Improving, Stable or Deteriorating and a complementary risk rating of Low (L), Medium (M), High (H) or Speculative (S) regarding the credit risk of the company featured in the report. The fundamental credit opinion reflects the CIRA analyst's opinion of the direction of credit fundamentals of the issuer without respect to securities market vagaries. The fundamental credit opinion is not geared to, but should be viewed in the context of debt ratings issued by major public debt ratings companies such as Moody's Investors Service, Standard and Poor's, and Fitch Ratings. CBR risk ratings are approximately equivalent to the following matrix: Low Risk Triple A to Low Double A; Low to Medium Risk High Single A through High Triple B; Medium to High Risk Mid Triple B through High Double B; High to Speculative Risk Mid Double B and Below. The risk rating element illustrates the analyst's opinion of the relative likelihood of loss of principal when a fixed income security issued by a company is held to maturity, based upon both fundamental and market risk factors. Certain reports published by CIRA will also include investment ratings on specific issues of companies under coverage which have been assigned fundamental credit opinions and risk ratings. Investment ratings are a function of CIRA's expectations for total return, relative return (to publicly available Citigroup bond indices performance), and risk rating. These investment ratings are: Buy/Overweight the bond is expected to outperform the relevant Citigroup bond market sector index (Broad Investment Grade, High Yield Market or Emerging Market), performances of which are updated monthly and can be viewed at http://sd.ny.ssmb.com/ using the "Indexes" tab; Hold/Neutral Weight the bond is expected to perform in line with the relevant Citigroup bond market sector index; or Sell/Underweight the bond is expected to underperform the relevant sector of the Citigroup indexes.

Non-US research analysts who have prepared this report are not registered/qualified as research analysts with the NYSE and/or NASD. Such research analysts may not be associated persons of the member organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. The legal entities employing the authors of this report are listed below:

Citigroup Global Markets Ltd	Mark Dainty, ACA,Kevin Wilson,Joanne Jerman,Robert Dickinson, CA

OTHER DISCLOSURES

The subject company's share price set out on the front page of this Product is quoted as at 09 November 2009 01:39 PM on the issuer's primary market.

Citigroup Global Markets Inc. and/or its affiliates has a significant financial interest in relation to Sanofi-Aventis SA. (For an explanation of the determination of significant financial interest, please refer to the policy for managing conflicts of interest which can be found at www.citigroupgeo.com.)

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the issuer(s) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Investment Research & Analysis (CIRA) does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of CIRA to provide research coverage of the/those issuer(s) mentioned therein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus.

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

Important Disclosures for Morgan Stanley Smith Barney LLC Customers: Morgan Stanley & Co. Incorporated (Morgan Stanley) research reports may be available about the companies that are the subject of this Citi Investment Research & Analysis (CIRA) research report. Ask your Financial Advisor or use smithbarney.com to view any available Morgan Stanley research reports in addition to CIRA research reports.
Important disclosure regarding the relationship between the companies that are the subject of this CIRA research report and Morgan Stanley Smith Barney LLC and its affiliates are available at the Morgan Stanley Smith Barney disclosure website at www.morganstanleysmithbarney.com/researchdisclosures.
The required disclosures provided by Morgan Stanley and Citigroup Global Markets, Inc. on Morgan Stanley and CIRA research relate in part to the separate businesses of

Citigroup Global Markets, Inc. and Morgan Stanley that now form Morgan Stanley Smith Barney LLC, rather than to Morgan Stanley Smith Barney LLC in its entirety. For Morgan Stanley and Citigroup Global Markets, Inc. specific disclosures, you may refer to www.morganstanley.com/researchdisclosures and https://www.citigroupgeo.com/geopublic/Disclosures/index_a.html.
This CIRA research report has been reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval was conducted by the same person who reviewed this research report on behalf of CIRA. This could create a conflict of interest.

The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by. The Product is made available in Australia through Citigroup Global Markets Australia Pty Ltd. (ABN 64 003 114 832 and AFSL No. 240992), participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Australia to Private Banking wholesale clients through Citigroup Pty Limited (ABN 88 004 325 080 and AFSL 238098). Citigroup Pty Limited provides all financial product advice to Australian Private Banking wholesale clients through bankers and relationship managers. If there is any doubt about the suitability of investments held in Citigroup Private Bank accounts, investors should contact the Citigroup Private Bank in Australia. Citigroup companies may compensate affiliates and their representatives for providing products and services to clients. The Product is made available in Brazil by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários, BACEN - Brazilian Central Bank, APIMEC - Associação Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBID - Associação Nacional dos Bancos de Investimento. Av. Paulista, 1111 - 11º andar - CEP. 01311920 - São Paulo - SP. If the Product is being made available in certain provinces of Canada by Citigroup Global Markets (Canada) Inc. ("CGM Canada"), CGM Canada has approved the Product. Citigroup Place, 123 Front Street West, Suite 1100, Toronto, Ontario M5J 2M3. The Product is made available in France by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 1-5 Rue Paul Cézanne, 8ème, Paris, France. The Product may not be distributed to private clients in Germany. The Product is distributed in Germany by Citigroup Global Markets Deutschland AG & Co. KGaA, which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). Frankfurt am Main, Reuterweg 16, 60323 Frankfurt am Main. If the Product is made available in Hong Kong by, or on behalf of, Citigroup Global Markets Asia Ltd., it is attributable to Citigroup Global Markets Asia Ltd., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Product is made available in Hong Kong by The Citigroup Private Bank to its clients, it is attributable to Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. The Citigroup Private Bank and Citibank N.A. is regulated by the Hong Kong Monetary Authority. The Product is made available in India by Citigroup Global Markets India Private Limited, which is regulated by Securities and Exchange Board of India. Bakhtawar, Nariman Point, Mumbai 400-021. The Product is made available in Indonesia through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations. The Product is made available in Italy by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. Foro Buonaparte 16, Milan, 20121, Italy. The Product is made available in Japan by Citigroup Global Markets Japan Inc. ("CGMJ"), which is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Shin-Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6520 Japan. If the Product was distributed by Nikko Cordial Securities Inc. it is being so distributed under license. In the event that an error is found in an CGMJ research report, a revised version will be posted on the Firm's Global Equities Online (GEO) website. If you have questions regarding GEO, please call (81 3) 6270-3019 for help. The Product is made available in Korea by Citigroup Global Markets Korea Securities Ltd., which is regulated by Financial Supervisory Commission and the Financial Supervisory Service. Hungkuk Life Insurance Building, 226 Shinmunno 1-GA, Jongno-Gu, Seoul, 110-061. The Product is made available in Malaysia by Citigroup Global Markets Malaysia Sdn Bhd, which is regulated by Malaysia Securities Commission. Menara Citibank, 165 Jalan Ampang, Kuala Lumpur, 50450. The Product is made available in Mexico by Acciones y Valores Banamex, S.A. De C. V., Casa de Bolsa, Integrante del Grupo Financiero Banamex ("Accival") which is a wholly owned subsidiary of Citigroup Inc. and is regulated by Comision Nacional Bancaria y de Valores. Reforma 398, Col. Juarez, 06600 Mexico, D.F. In New Zealand the Product is made available through Citigroup Global Markets New Zealand Ltd. (Company Number 604457), a Participant of the New Zealand Exchange Limited and regulated by the New Zealand Securities Commission. Level 19, Mobile on the Park, 157 Lambton Quay, Wellington. The Product is made available in Pakistan by Citibank N.A. Pakistan branch, which is regulated by the State Bank of Pakistan and Securities Exchange Commission, Pakistan. AWT Plaza, 1.1. Chundrigar Road, P.O. Box 4889, Karachi-74200. The Product is made available in Poland by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Dom Maklerski Banku Handlowego S.A. ul. Chalubinskiego 8, 00-630 Warszawa. The Product is made available in the Russian Federation through ZAO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gasheka Street, 125047 Moscow. The Product is made available in Singapore through Citigroup Global Markets Singapore Pte. Ltd., a Capital Markets Services Licence holder, and regulated by Monetary Authority of Singapore. 1 Temasek Avenue, #39-02 Millenia Tower, Singapore 039192. The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Citigroup Global Markets (Pty) Ltd. is incorporated in the Republic of South Africa (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in Spain by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 29 Jose Ortega Y Gassef, 4th Floor, Madrid, 28006, Spain. The Product is made available in Taiwan through Citigroup Global Markets Taiwan Securities Company Ltd., which is regulated by Securities & Futures Bureau. No portion of the report may be reproduced or quoted in Taiwan by the press or any other person. No. 8 Manhattan Building, Hsin Yi Road, Section 5, Taipei 100, Taiwan. The Product is made available in Thailand through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 18/F, 22/F and 29/F, 82 North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand. The Product is made available in Turkey through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Buyukdere Caddesi # 209 Kat 2B, 23294 Levent, Istanbul, Turkey. In the U.A.E, these materials (the "Materials") are communicated by Citigroup Global Markets Limited, DIFC branch ("CGML"), an entity registered in the Dubai International Financial Center ("DIFC") and licensed and regulated by the Dubai Financial Services Authority ("DFSA" to Professional Clients and Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different CIRA ratings distribution, in percentage terms for Investments in each sector covered is made available on request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties. The Product is made available in United Kingdom by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. This material may relate to investments or services of a person outside of the UK or to other matters which are not regulated by the FSA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in United States by Citigroup Global Markets Inc, which is regulated by NASD, NYSE and the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless

specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is regulated by Financial Services Authority. Many European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of investment research. The policy applicable to CIRA's Products can be found at www.citigroupgeo.com. Compensation of equity research analysts is determined by equity research management and Citigroup's senior management and is not linked to specific transactions or recommendations. The Product may have been distributed simultaneously, in multiple formats, to the Firm's worldwide institutional and retail customers. The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted. Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST EU91027B