

# Downgrade to Underperform

## Lacking catalysts and risk to Erbitux

We downgrade Merck to Underperform as we see limited pipeline catalysts through early 2010 and we continue to see risks to Erbitux (cancer) forecasts. Although shares underperformed the sector by c13% through 2009, driven by a raft of negative newsflow (pharma margin downgrades, rejection of Erbitux in lung cancer and a likely delay to cladribine in the US), this was partially offset by the continued improvement in Liquid Crystals (LC) profitability. With an improvement in LC profitability now reflected in consensus forecasts, we expect pharma challenges to come to the fore.

## Still see risks to longer term Erbitux forecasts

We continue to remain cautious on longer-term Erbitux forecasts (2014E sales of Eur960m vs cons. of cEur1.3bn). Specifically, we continue to believe Amgen's Vectibix may act as a headwind to Erbitux growth (following possible launch in early 2011), given its efficacy data is broadly comparable and it has the advantage of a lower dosing frequency and better infusion site reaction profile.

## Cladribine updates not viewed as a catalyst

Although we have already removed US cladribine (multiple sclerosis) sales, we continue to believe next newsflow on cladribine represents asymmetric downside risk. Specifically, potential confirmation that the recent "refuse to file letter" is not just related to technical issues which can be resolved quickly (as some in the market are still hoping) could see further share price downside, in our opinion. Conversely, we see limited share price upside should Merck be able to launch cladribine in the US in 2010, given we remain cautious on: 1) Potential launch costs as we believe Pfizer are unlikely to co-promote and; 2) Poor patent protection.

## Estimates (Dec)

| (EUR)                  | 2007A | 2008A | 2009E  | 2010E | 2011E |
|------------------------|-------|-------|--------|-------|-------|
| EPS (Adjusted Diluted) | 5.21  | 5.73  | 4.63   | 5.35  | 6.19  |
| EPS Change (YoY)       | 35.5% | 9.9%  | -19.1% | 15.5% | 15.7% |
| Dividend / Share       | 3.20  | 1.50  | 1.02   | 1.12  | 1.38  |

## Valuation (Dec)

|                       | 2007A | 2008A | 2009E | 2010E | 2011E |
|-----------------------|-------|-------|-------|-------|-------|
| P/E                   | 12.7x | 11.6x | 14.3x | 12.4x | 10.7x |
| Dividend Yield        | 4.83% | 2.27% | 1.55% | 1.69% | 2.08% |
| EV / EBITDA*          | 5.39x | 4.94x | 6.43x | 6.02x | 5.54x |
| Free Cash Flow Yield* | 5.70% | 3.39% | 4.15% | 6.02% | 7.38% |

\* For full definitions of *iQmethod*<sup>SM</sup> measures, see page 14.

## Bank of America Merrill Lynch



|  |                  |
|--|------------------|
| <b>Sachin Jain, CFA &gt;&gt;</b>                         | +44 20 7995 9676 |
| Research Analyst<br>MLPF&S (UK)<br>s.jain@baml.com       |                  |
| <b>Graham Parry &gt;&gt;</b>                             | +44 20 7996 0735 |
| Research Analyst<br>MLPF&S (UK)<br>graham.parry@baml.com |                  |
| <b>Jamie Clark, CFA &gt;&gt;</b>                         | +44 20 7995 1300 |
| Research Analyst<br>MLPF&S (UK)<br>jamie.clark@baml.com  |                  |

## Stock Data

|                             |                   |
|-----------------------------|-------------------|
| Price                       | EUR66.22          |
| Price Objective             | EUR67.00          |
| Date Established            | 30-Nov-2009       |
| Investment Opinion          | B-3-8             |
| Volatility Risk             | MEDIUM            |
| 52-Week Range               | EUR56.26-EUR75.04 |
| Mrkt Val / Shares Out (mn)  | EUR14,395 / 217.4 |
| Average Daily Volume        | 387,976           |
| BofAML Ticker / Exchange    | MKGAF / GER       |
| Bloomberg / Reuters         | MRK GR / MRCG.DE  |
| ROE (2009E)                 | 10.4%             |
| Net Dbt to Eqty (Dec-2008A) | 5.0%              |
| Est. 5-Yr EPS / DPS Growth  | 5.7% / 4.4%       |
| Free Float                  | 29.7%             |

## Key Changes

| (EUR)        | Previous | Current      |
|--------------|----------|--------------|
| Inv. Opinion | B-2-7    | B-3-8        |
| Inv. Rating  | NEUTRAL  | UNDERPERFORM |

>> Employed by a non-US affiliate of MLPF&S and is not registered/qualified as a research analyst under the FINRA rules.

Refer to "Other Important Disclosures" for information on certain Merrill Lynch entities that take responsibility for this report in particular jurisdictions.

Merrill Lynch does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Refer to important disclosures on page 15 to 17. Analyst Certification on Page 13. Price Objective Basis/Risk on page 13.

18 January 2010

## iQprofile<sup>SM</sup> Merck KGaA

| Key Income Statement Data (Dec)          | 2007A | 2008A   | 2009E | 2010E  | 2011E  |
|--|-------|---------|-------|--------|--------|
| <b>(EUR Millions)</b>                    |       |         |       |        |        |
| Sales                                    | 7,057 | 7,558   | 7,722 | 8,126  | 8,462  |
| EBITDA Adjusted                          | 2,676 | 2,921   | 2,243 | 2,397  | 2,607  |
| Depreciation & Amortization              | (924) | (1,186) | (871) | (894)  | (919)  |
| EBIT Adjusted                            | 1,752 | 1,735   | 1,372 | 1,503  | 1,688  |
| Net Interest & Other Income              | (311) | (157)   | (140) | (53.8) | (2.16) |
| Tax Expense / Benefit                    | 23.1  | (196)   | (146) | (217)  | (272)  |
| Net Income (Adjusted)                    | 1,125 | 1,245   | 1,007 | 1,163  | 1,346  |
| Average Fully Diluted Shares Outstanding | 216   | 217     | 217   | 217    | 217    |

### Key Cash Flow Statement Data

|  |                |               |              |              |               |
|--|----------------|---------------|--------------|--------------|---------------|
| Net Income (Reported)                    | 3,500          | 367           | 438          | 657          | 839           |
| Depreciation & Amortization              | 924            | 1,186         | 871          | 894          | 919           |
| Change in Working Capital                | (192)          | (304)         | (209)        | (127)        | (106)         |
| Deferred Taxation Charge                 | 0              | 0             | 0            | 0            | 0             |
| Other CFO                                | (3,014)        | (224)         | 77.4         | 51.7         | 45.1          |
| <b>Cash Flow from Operations</b>         | <b>1,218</b>   | <b>1,024</b>  | <b>1,177</b> | <b>1,476</b> | <b>1,697</b>  |
| Capital Expenditure                      | (404)          | (536)         | (579)        | (609)        | (634)         |
| (Acquisition) / Disposal of Investments  | (7,318)        | (78.2)        | 0            | 0            | 0             |
| Other CFI                                | 4,994          | 532           | 0            | 0            | 0             |
| <b>Cash Flow from Investing</b>          | <b>(2,728)</b> | <b>(81.7)</b> | <b>(579)</b> | <b>(609)</b> | <b>(634)</b>  |
| Share Issue / (Repurchase)               | 2,038          | 0.20          | 0            | 0            | 0             |
| Cost of Dividends Paid                   | (77.0)         | (213)         | (66.2)       | (72.2)       | (89.0)        |
| Increase (decrease) debt                 | 235            | (0.70)        | 750          | (500)        | 0             |
| Other CFF                                | (721)          | (463)         | 0            | 0            | 0             |
| <b>Cash Flow from Financing</b>          | <b>1,476</b>   | <b>(676)</b>  | <b>684</b>   | <b>(572)</b> | <b>(89.0)</b> |
| <b>Total Cash Flow (CFO + CFI + CFF)</b> | <b>(33.5)</b>  | <b>266</b>    | <b>1,282</b> | <b>294</b>   | <b>974</b>    |
| FX and other changes to cash             | 432            | (389)         | 0            | 0            | 0             |
| Change in Cash                           | 399            | (122)         | 1,282        | 294          | 974           |
| Change in Net Debt                       | (164)          | 122           | (532)        | (794)        | (974)         |
| Net Debt                                 | 355            | 477           | (55.1)       | (849)        | (1,823)       |

### Key Balance Sheet Data

|                                       |               |               |               |               |               |
|---------------------------------------|---------------|---------------|---------------|---------------|---------------|
| Property, Plant & Equipment           | 2,275         | 2,440         | 2,566         | 2,692         | 2,811         |
| Goodwill                              | 1,792         | 1,929         | 1,929         | 1,929         | 1,929         |
| Other Intangibles                     | 6,372         | 6,274         | 5,856         | 5,446         | 5,042         |
| Other Non-Current Assets              | 658           | 643           | 643           | 643           | 643           |
| Trade Receivables                     | 1,378         | 1,659         | 1,816         | 1,911         | 1,990         |
| Cash & Equivalents                    | 992           | 870           | 2,151         | 2,446         | 3,419         |
| Other Current Assets                  | 1,455         | 1,830         | 1,962         | 2,043         | 2,110         |
| <b>Total Assets</b>                   | <b>14,922</b> | <b>15,645</b> | <b>16,923</b> | <b>17,108</b> | <b>17,943</b> |
| Long-Term Debt                        | 1,047         | 1,080         | 1,595         | 1,595         | 1,095         |
| Other Non-Current Liabilities         | 2,617         | 2,623         | 2,623         | 2,623         | 2,623         |
| Short-Term Debt                       | 300           | 266           | 501           | 1.10          | 501           |
| Other Current Liabilities             | 2,270         | 2,112         | 2,257         | 2,345         | 2,418         |
| <b>Total Liabilities</b>              | <b>6,235</b>  | <b>6,082</b>  | <b>6,977</b>  | <b>6,565</b>  | <b>6,638</b>  |
| <b>Total Equity</b>                   | <b>8,688</b>  | <b>9,563</b>  | <b>9,947</b>  | <b>10,543</b> | <b>11,306</b> |
| <b>Total Equity &amp; Liabilities</b> | <b>14,922</b> | <b>15,645</b> | <b>16,923</b> | <b>17,108</b> | <b>17,943</b> |

### Business Performance\*

|                            |       |       |       |       |       |
|----------------------------|-------|-------|-------|-------|-------|
| Return On Capital Employed | 14.5% | 9.04% | 7.33% | 7.69% | 8.43% |
| Return On Equity           | 18.2% | 13.7% | 10.4% | 11.4% | 12.4% |
| Operating Margin           | 2.84% | 9.68% | 9.53% | 11.6% | 13.3% |
| Free Cash Flow (MM)        | 814   | 488   | 598   | 867   | 1,063 |

### Quality of Earnings\*

|                         |       |       |        |        |        |
|-------------------------|-------|-------|--------|--------|--------|
| Cash Realization Ratio  | 1.08x | 0.82x | 1.17x  | 1.27x  | 1.26x  |
| Asset Replacement Ratio | 1.40x | 1.93x | 1.94x  | 1.89x  | 1.83x  |
| Tax Rate                | 20.8% | 34.1% | 24.5%  | 24.5%  | 24.2%  |
| Net Debt/Equity         | 4.09% | 4.99% | -0.55% | -8.06% | -16.1% |
| Interest Cover          | 5.63x | 11.1x | 9.79x  | 28.0x  | NM     |

\* For full definitions of iQmethod<sup>SM</sup> measures, see page 14.

### Company Description

Merck KGaA is a hybrid chemical and biopharmaceutical company with headquarters in Germany. The 2006 acquisition of Serono bolstered the biopharma portion of the group. Current growth drivers are the biopharma products Erbitux for cancer and Rebif for multiple sclerosis.

### Investment Thesis

We see limited pipeline catalysts through early 2010 and we continue to see risks to Erbitux (cancer) forecasts. In addition, shares have only underperformed the sector by c13% through 2009, despite a raft of negative newsflow, we believe related to continued improvement in Liquid Crystals (LC) profitability. With an improvement in LC profitability now reflected in consensus forecasts, we expect pharma challenges to come to the fore

### Stock Data

Price to Book Value 1.5x

Table 1: Merck KGaA Investment points

**Investment positives**

Earlier than anticipated US launch of cladribine  
Cyclical exposure benefits in potentially rising markets

**Investment Negatives**

Insufficient valuation upside given risks  
Vectibix launch from year-end a headwind to Erbitux growth  
Improvement in liquid crystal business reflected in consensus

Source: BofA Merrill Lynch Global Research

Table 2: Merck KGaA Sales, EBIT and EPS CAGR '11-'14

| Sales | EBIT | EPS  |
|-------|------|------|
| 2.6%  | 6.4% | 6.8% |

Source: BofA Merrill Lynch Global Research

Table 3: Merck KGaA Key Events next 12 months

**Key Phase III/IV data**

Safinamide PIII data in Parkinsons possible early 2011  
Stimuvax PIII START study in NSCLC possible end-2010/early 2011  
Erbitux Phase III gastric cancer

**Other positive newsflow triggers**

FDA confirms only technical issues to be resolved in cladribine filing package  
Cladribine EU approval mid-2010, with 10yrs data exclusivity in EU

**Negative newsflow triggers**

FDA requests new clinical studies for cladribine  
Zaltumumab PIII data in H&N cancer end 09  
Alimta PIII data in H&N cancer end 09  
Cladribine fails to achieve 10yrs data exclusivity EU

Source: BofA Merrill Lynch Global Research

## Investment thesis

We downgrade Merck to Underperform for reasons outlined below:

**Still see risk to Erbitux forecasts:** We continue to remain cautious on longer-term Erbitux forecasts (2014E sales of Eur960m vs consensus cEur1.3bn). Specifically, we continue to believe Amgen's Vectibix may act as a headwind to Erbitux growth (following possible launch in early 2011), given its efficacy data is broadly comparable and it has the advantage of a lower dosing frequency and better infusion site reaction profile. We also believe presentation of the recently discontinued Erbitux adjuvant colon cancer study represents asymmetric downside risk should it raise questions over Erbitux's combination usage with FOLFOX. We remind investors that the COIN study (1<sup>st</sup> line colorectal cancer) raised questions over the combination of Erbitux and XELOX.

**Next cladribine newsflow asymmetric downside risk:** Although we have already removed US cladribine sales, we continue to believe next newsflow on cladribine represents asymmetric downside risk. Specifically, potential confirmation that the recent "refuse to file letter" is not just related to technical issues which can be resolved quickly (as some in the market are still hoping) could see further share price downside, in our opinion. Conversely, we see limited share price upside should Merck be able to launch cladribine in the US in 2010, given we remain cautious on: 1) Potential launch costs as we believe Pfizer are unlikely to co-promote and we could therefore expect additional marketing launch costs for cladribine in the US vs expectations; 2) Poor patent protection, in our opinion. Cladribine's composition of matter patent has already expired and method of use patents in MS are valid until only c2013E (EU/US). Merck has filed additional patents which would protect the product until 2024. However, these still need to be granted, which is not a foregone conclusion and additional patents are also predominantly usage/formulation patents, which tend to be easier to bypass; 3) Competitive pressures from Novartis's FTY720 are potentially greater than previously anticipated, given recent safety data has been better than anticipated.

**Liquid Crystals no longer a source of substantial earnings upgrades:** 2009 was characterized by a rapid recovery of Liquid Crystals profitability from close to break-even at the start of the year. However, we believe this improvement is now largely reflected in consensus forecasts, with limited scope for significant upgrades particularly given recent management commentary. Specifically, on its 3Q09 results call management commented that a) There were first signs of oversupply in the market; b) Expected 4Q09 margins (we estimate c40%) are unlikely to be repeated in FY10 given uncertainty on pricing outlook.

**Limited pipeline catalysts:** We see limited pipeline catalysts that could potentially drive significant share price upside, as discussed below.

**Limited valuation downside:** Although we downgrade our recommendation, we highlight that our PO is unchanged at Eur67. While this suggests limited absolute valuation downside, our Underperform rating is relative to the greater upside we see elsewhere in the EU pharma sector (please see separate sector report published today).

Table 4: Merck key potential product launches

| Drug            | Indication         | Launch | Risk-adjusted peak sales (\$) |
|-----------------|--------------------|--------|-------------------------------|
| Cladribine      | Multiple sclerosis | 2010   | 250                           |
| Stimuvax        | Lung cancer        | 2011   | 150                           |
| Safinamide      | Parkinson's        | 2012   | 150                           |
| Kuvan           | phenylketonuria    | 2009   | 130                           |
| Total 2009-2017 |                    |        | 680                           |
| % 2008E sales   |                    |        | 6.6%                          |

Source: BofA Merrill Lynch Global Research

## Core Drivers

We forecast a 11-14E EPS CAGR of 6.8% driven by:

1) **Group Revenue 11-14E CAGR of 1.5%**, with Liquid Crystals the fastest growing division (4% CAGR). Importantly, we now only forecast a 0.9% revenue CAGR within Merck-Serono given: 1) A declining royalty income as constituent products lose patent protection; 2) Rebif revenues forecast to decline marginally to account for competition from oral agents, including Novartis's FTY720; 3) Limited pipeline sales contribution from cladribine (US sales removed following recent US refuse to file).

2) **Core EBIT margin expansion of 180bp**, with c190bp margin expansion in Merck-Serono and c150bp in Liquid Crystals (given we expect the bulk of recovery from cyclical trough to have already occurred).

3) **Increasing net financial income as Merck's net cash balance increases:** Specifically, we forecast an increase in net financial income of cEur150m between 11-14E, contributing to an increase in PTP of cEur380m over the same period. However, we highlight that these forecasts are potentially at risk should Merck pursue an integration within its chemicals division, as it has indicated is possible.

## Pipeline newsflow

**Clarification of cladribine US filing strategy:** As discussed above, Merck is scheduled to meet with FDA shortly to discuss the recent "refuse to file" letter, with an update on filing strategy therefore possible with FY09 results. However, we believe this represents asymmetric downside risk to share price (though not forecasts).

**Erbix adjuvant colon cancer study:** As discussed above, the recently discontinued Erbitux adjuvant colon cancer study is due to be presented shortly. Our focus will be on the toxicity seen in combination with FOLFOX and any potential read-through to the metastatic setting.

**Erbix Phase III in gastric cancer:** First Phase III data (primary endpoint PFS) from the EXPAND study in 1<sup>st</sup> line gastric cancer is expected shortly. Although positive data could open up a reasonable (cEur250m) market opportunity, we continue to exclude sales from forecasts given; 1) Avastin data in the same setting (AVAGAST, primary endpoint overall survival) is also expected in 1H 2010 and is likely to be viewed as a competitive reference point; 2) Overall survival data (not expected until 2012) may be needed for filing.

**Potential for first Stimuvax and Safinamide data end 2010:** First Phase III data for both Stimuvax (lung cancer vaccine) and safinamide (Parkinson's disease) is expected, most likely from 4Q 2010. However, we view both projects as high risk and therefore exclude sales for both from forecasts.

**Eye on competitor newsflow:** Phase III data for both Alimta and Zalutumumab in Head & Neck (H&N) cancer is expected shortly, which could provide competition to Erbitux in this indication. We also highlight Phase III data for AZN's Recentin in 1<sup>st</sup> line mCRC is expected in 1H 2010, which may represent additional competition for Erbitux in this indication, should data be positive.

## Risks to Underperform

**Better than anticipated newsflow on cladribine:** The key near-term risk to our Underperform rating is better than anticipated newsflow on cladribine US regulatory timelines. However, we believe this is unlikely.

Table 5: Merck key US patents

| Product         | Assumed Expiry | % 2008A Sales |
|-----------------|----------------|---------------|
| Erbix           | 2014           | 0%            |
| Rebif           | 2013           | 8%            |
| Cladribine      | 2013           | 0%            |
| Total 2010-2012 |                | 0.0%          |
| Total 2010-2017 |                | 8.0%          |

Source: BofA Merrill Lynch Global Research

## Key Events

Table 6: Merck Key Events

| Time        | Drug        | Indication          | Event Type      | Phase    | Mechanism of Action          | Comment  |
|-------------|-------------|---------------------|-----------------|----------|------------------------------|--|
| <b>1Q10</b> |             |                     |                 |          |                              |  |
| 1Q          | Cladribine  | Multiple Sclerosis  | Approval/Launch | PIII     | Lymphocyte cell death        | Merck due to meet with FDA to discuss content of cladribine refuse to file letter  |
| 1Q          | Erbix       | H&N cancer          | Phase III data  | Approved | EGFR inhibitor               | Alimta (Lilly) PIII data in Head & neck cancer due by end 09   |
| 1Q          | Erbix       | NSCLC (lung cancer) | Other           | Approved | EGFR inhibitor               | Zalutumumab (Genmab, EGFR inhibitor) PIII data in Head and Neck cancer expected by end-2009.   |
| 1Q          | Stimuvax    | NSCLC (lung cancer) | Phase III data  | PIII     | Lung cancer vaccine          | PIII START study interim analysis possible   |
| <b>2Q10</b> |             |                     |                 |          |                              |  |
| 2Q          | Cladribine  | Multiple Sclerosis  | Approval/Launch | PIII     | Lymphocyte cell death        | EU approval expected 3Q09 (filed 23 July 2009) but could be delayed if EMEA has similar concerns to FDA.   |
| <b>4Q10</b> |             |                     |                 |          |                              |  |
| 2H          | Erbix       | Gastric cancer      | Phase III data  | Approved | EGFR inhibitor               | Data from PIII EXPAND study possible   |
| 2H          | Safinamide  | Parkinson's         | Phase III data  | PIII     | Dopamine uptake & MAO-B inh. | PIII MOTION study data expected Sept 2010  |
| 2H          | Safinamide  | Parkinson's         | Phase III data  | PIII     | Dopamine uptake & MAO-B inh. | PIII SETTLE study data expected  |
| 2H          | Stimuvax    | NSCLC (lung cancer) | Phase III data  | PIII     | Lung cancer vaccine          | PIII START study final analysis possible   |
| <b>2011</b> |             |                     |                 |          |                              |  |
|             | Atacicept   | Lupus               | Phase III data  | PIII     | TACI-IG                      | First PIII data possible in lupus  |
| <b>2012</b> |             |                     |                 |          |                              |  |
| 2Q          | Cilengitide | Glioblastoma        | Phase III data  | PIII     | Integrin inhibitor           | First PIII data from CENTRIC study possible  |
| 2H          | Cladribine  | Multiple Sclerosis  | Phase III data  | PIII     | Lymphocyte cell death        | PIII ORACLE data in early stage MS (CIS) possible  |
| <b>2013</b> |             |                     |                 |          |                              |  |
| 2H          | Cladribine  | Multiple Sclerosis  | Phase III data  | PIII     | Lymphocyte cell death        | Phase II (ONWARD) data in 1H09E. Safety, tolerability & efficacy of cladribine plus Rebif in pts with active disease despite treatment with Rebif. |

Source: BofA Merrill Lynch Global Research

## DCF Valuation

Table 7: Merck DCF - Assumptions

| Equity                 |       | Enterprise Value     |              |
|------------------------|-------|----------------------|--------------|
| Risk Free Rate         | 4.5%  | Gross Debt           | 1,346        |
| Equity Risk Premium    | 6.0%  | Cash & Equivalents   | 870          |
| Beta                   | 1     | Net Debt (m)         | 477          |
| Cost of Equity         | 10.5% | Minorities (m)       | 58           |
|                        |       | Options (m)          | 0            |
| <b>Debt</b>            |       | Preference Stock (m) | 0            |
| Risk Free Rate         | 4.5%  | Market Cap (m)       | 14,000       |
| Corporate Debt Premium | 1.5%  | Enterprise Value (m) | 14,534       |
| Marginal Tax Rate      | 34%   | % Debt               | 4%           |
| Post Tax Cost of Debt  | 4.0%  | % Equity             | 96%          |
|                        |       | <b>WACC</b>          | <b>10.3%</b> |

Source: BofA Merrill Lynch Global Research

Table 8: Merck DCF - Valuation

| (EUR millions Dec YE)               | Stage 1<br>2009 | Stage 1<br>2010 | Stage 1<br>2011 | Stage 1<br>2012 | Stage 1<br>2013 | Stage 1<br>2014 | Stage 2<br>2015 | Stage 2<br>2016 | Stage 2<br>2017 | Stage 2<br>2018 | Stage 2<br>2019 | Terminal<br>2020 |
|-------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|
| <b>Free Cash Flow</b>               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                  |
| Operating Profit (pre-exc)          | 804.9           | 938.5           | 1,123.8         | 1,216.7         | 1,299.2         | 1,355.3         |                 |                 |                 |                 |                 |                  |
| Pipeline                            | -               | -               | -               | -               | -               | -               |                 |                 |                 |                 |                 |                  |
| R&D expenditure                     | -               | -               | -               | -               | -               | -               |                 |                 |                 |                 |                 |                  |
| Tax                                 | 24.5            | 24.5            | 24.2            | 24.0            | 24.0            | 24.0            |                 |                 |                 |                 |                 |                  |
| <b>NOPAT</b>                        | <b>607.7</b>    | <b>708.6</b>    | <b>851.9</b>    | <b>924.7</b>    | <b>987.4</b>    | <b>1,030.0</b>  |                 |                 |                 |                 |                 |                  |
| Depreciation & Amortisation         | 871.0           | 894.4           | 918.8           | 943.9           | 969.6           | 995.5           |                 |                 |                 |                 |                 |                  |
| Other Adjustments                   | 65.4            | 39.7            | 33.1            | 19.4            | 10.3            | 8.0             |                 |                 |                 |                 |                 |                  |
| Change work cap                     | (209.4)         | (127.3)         | (105.9)         | (62.2)          | (32.9)          | (25.7)          |                 |                 |                 |                 |                 |                  |
| Capex                               | (578.9)         | (609.2)         | (634.4)         | (649.2)         | (657.0)         | (663.1)         |                 |                 |                 |                 |                 |                  |
| <b>Operating FCF</b>                | <b>756</b>      | <b>906</b>      | <b>1,063</b>    | <b>1,177</b>    | <b>1,277</b>    | <b>1,345</b>    | <b>1,406</b>    | <b>1,461</b>    | <b>1,508</b>    | <b>1,546</b>    | <b>1,574</b>    | <b>1,592</b>     |
| <i>Growth</i>                       |                 | 19.9%           | 17.3%           | 10.6%           | 8.6%            | 5.3%            | 4.6%            | 3.9%            | 3.2%            | 2.5%            | 1.8%            | 1.1%             |
| Discount factor                     | 1.00            | 0.91            | 0.82            | 0.75            | 0.68            | 0.61            | 0.56            | 0.51            | 0.46            | 0.42            | 0.38            | 0.34             |
| <b>NPV of Cashflows</b>             | <b>758</b>      | <b>824</b>      | <b>877</b>      | <b>879</b>      | <b>866</b>      | <b>827</b>      | <b>784</b>      | <b>739</b>      | <b>691</b>      | <b>643</b>      | <b>594</b>      | <b>544</b>       |
| Sum of NPV of Cashflows             | 9,025           |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                  |
| <b>Terminal Value</b>               | <b>6,027</b>    |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                  |
| <b>Enterprise Value</b>             | <b>15,052</b>   |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                  |
| Terminal Value as % of EV           | 40%             |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                  |
| Net Debt (m)                        | 477             |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                  |
| Minorities (m)                      | 58              |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                  |
| Options (m)                         | 0               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                  |
| Preference Stock (m)                | 0               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                  |
| <b>Equity Value</b>                 | <b>14,518</b>   |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                  |
| Shares Outstanding (m)              | 217             |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                  |
| <b>Equity Value per share (EUR)</b> | <b>66.8</b>     |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                  |

Source: BofA Merrill Lynch Global Research

## Models

Table 9: Merck Product sales model

| Year to December (Euro mn)               | 2008A | 2009E | 2010E | 2011E | 2012E | 2013E | 2014E | % Chg YoY |       |       |       |       |       |       | CAGR<br>11-14E |
|--|-------|-------|-------|-------|-------|-------|-------|-----------|-------|-------|-------|-------|-------|-------|----------------|
|  |       |       |       |       |       |       |       | 2008A     | 2009E | 2010E | 2011E | 2012E | 2013E | 2014E |                |
| Rebif (r-IFN-b 1a)                       | 1,331 | 1,539 | 1,570 | 1,570 | 1,491 | 1,461 | 1,432 | 9         | 16    | 2     | 0     | -5    | -2    | -2    | (3.0)          |
| Other products                           | 1,156 | 1,179 | 1,238 | 1,269 | 1,295 | 1,308 | 1,321 | 11        | 2     | 5     | 2     | 2     | 1     | 1     | 1.4            |
| Erbix                                    | 565   | 689   | 797   | 910   | 956   | 958   | 961   | 20        | 22    | 16    | 14    | 5     | 0     | 0     | 1.8            |
| Gonal-f (r-FSH SQ inj)                   | 460   | 488   | 497   | 522   | 548   | 576   | 605   | 6         | 6     | 2     | 5     | 5     | 5     | 5     | 5.0            |
| Concor / Bisoprolol products             | 433   | 433   | 433   | 433   | 433   | 433   | 433   | 14        | 0     | 0     | 0     | 0     | 0     | 0     | 0.0            |
| Glucophage / Metformin products          | 290   | 300   | 306   | 309   | 312   | 315   | 319   | 9         | 3     | 2     | 1     | 1     | 1     | 1     | 1.0            |
| Saizen (r-hGH)                           | 172   | 175   | 174   | 172   | 170   | 169   | 167   | 5         | 2     | -1    | -1    | -1    | -1    | -1    | (1.0)          |
| Euthyrox / Thyroid Products              | 150   | 156   | 161   | 164   | 167   | 171   | 174   | 11        | 4     | 3     | 2     | 2     | 2     | 2     | 2.0            |
| Raptiva (anti-CD11)                      | 93    | 17    | 1     | 1     | 1     | 1     | 1     | 22        | -82   | -95   | 0     | 0     | 0     | 0     | 0.0            |
| Kuvan                                    | 0     | 11    | 30    | 49    | 71    | 79    | 89    | nm        | nm    | 179   | 61    | 45    | 12    | 12    | 21.8           |
| Cladribine                               | 0     | 0     | 50    | 100   | 180   | 200   | 200   | nm        | nm    | nm    | 100   | 80    | 11    | 0     | 26.0           |
| Merck Serono Sales (Excl Royalty Income) | 4,650 | 4,986 | 5,257 | 5,499 | 5,626 | 5,672 | 5,701 | 11        | 7     | 5     | 5     | 2     | 1     | 1     | 1.2            |
| Total Consumer Health Care Revenue       | 442   | 464   | 475   | 487   | 497   | 507   | 518   | 5         | 5     | 3     | 2     | 2     | 2     | 2     | 2.1            |
| Generics                                 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | -100      | nm    | nm    | nm    | nm    | nm    | nm    | nm             |
| Pharma sales                             | 5,429 | 5,766 | 6,037 | 6,285 | 6,413 | 6,455 | 6,480 | -13       | 6     | 5     | 4     | 2     | 1     | 0     | 1.0            |
| Total Liquid Crystals Revenue            | 877   | 722   | 793   | 856   | 898   | 934   | 962   | -4        | -18   | 10    | 8     | 5     | 4     | 3     | 4.0            |
| Total PLS Revenue                        | 1,246 | 1,234 | 1,296 | 1,322 | 1,348 | 1,375 | 1,403 | 1         | -1    | 5     | 2     | 2     | 2     | 2     | 2.0            |
| Total Chemicals revenues                 | 2,123 | 1,955 | 2,088 | 2,177 | 2,246 | 2,309 | 2,365 | -1        | -8    | 7     | 4     | 3     | 3     | 2     | 2.8            |
| Total Product Sales                      | 7,202 | 7,386 | 7,800 | 8,141 | 8,347 | 8,465 | 8,560 | -12       | 3     | 6     | 4     | 3     | 1     | 1     | 1.7            |
| Total Revenues                           | 7,558 | 7,722 | 8,126 | 8,462 | 8,659 | 8,764 | 8,845 | -11       | 2     | 5     | 4     | 2     | 1     | 1     | 1.5            |

Source: BofA Merrill Lynch Global Research

18 January 2010

**Table 10: Merck Group Profit & Loss**

| Year to December (Euro mn)                       | 2008A        | 2009E        | 2010E        | 2011E        | 2012E        | 2013E        | 2014E        | % Chg YoY |       |       |       |       |       |       | CAGR<br>11-14E |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------|-------|-------|-------|-------|-------|-------|----------------|
|  |              |              |              |              |              |              |              | 2008A     | 2009E | 2010E | 2011E | 2012E | 2013E | 2014E |                |
| <b>Total Revenues</b>                            | 7,558        | 7,722        | 8,126        | 8,462        | 8,659        | 8,764        | 8,845        | 7         | 2     | 5     | 4     | 2     | 1     | 1     | 1.5            |
| Cost of Sales                                    | -1,906       | -2,021       | -2,091       | -2,169       | -2,219       | -2,252       | -2,278       | 7         | 6     | 3     | 4     | 2     | 1     | 1     | 1.6            |
| <b>Gross Profit</b>                              | <b>5,652</b> | <b>5,700</b> | <b>6,035</b> | <b>6,293</b> | <b>6,441</b> | <b>6,512</b> | <b>6,567</b> | 7         | 1     | 6     | 4     | 2     | 1     | 1     | 1.4            |
| Marketing and Selling Expenses                   | -2,097       | -2,201       | -2,243       | -2,327       | -2,381       | -2,410       | -2,433       | 8         | 5     | 2     | 4     | 2     | 1     | 1     | 1.5            |
| Administration Expenses                          | -446         | -448         | -471         | -491         | -502         | -508         | -513         | 0         | 0     | 5     | 4     | 2     | 1     | 1     | 1.5            |
| R&D Expenses                                     | -1,234       | -1,373       | -1,432       | -1,441       | -1,464       | -1,461       | -1,470       | 20        | 11    | 4     | 1     | 2     | -0    | 1     | 0.7            |
| Amortisation of intangible assets                | -573         | -573         | -573         | -573         | -573         | -573         | -573         | 3         | -0    | 0     | 0     | 0     | 0     | 0     | 0.0            |
| <b>Operating Profit - pre-exceptionals</b>       | <b>1,131</b> | <b>805</b>   | <b>938</b>   | <b>1,124</b> | <b>1,217</b> | <b>1,299</b> | <b>1,355</b> | 16        | -29   | 17    | 20    | 8     | 7     | 4     | 6.4            |
| Exceptional Items                                | -400         | -69          | 1            | 1            | 1            | 1            | 1            | -48       | -83   | nm    | 0     | 0     | 0     | 0     | 0.0            |
| <b>EBIT</b>                                      | <b>731</b>   | <b>736</b>   | <b>940</b>   | <b>1,125</b> | <b>1,218</b> | <b>1,300</b> | <b>1,356</b> | 265       | 1     | 28    | 20    | 8     | 7     | 4     | 6.4            |
| <b>Core EBIT (ex. amort, restruct &amp; exc)</b> | <b>1,735</b> | <b>1,372</b> | <b>1,503</b> | <b>1,688</b> | <b>1,781</b> | <b>1,864</b> | <b>1,920</b> | -1        | -21   | 10    | 12    | 6     | 5     | 3     | 4.4            |
| Net Financial Income/(Expense)                   | -157         | -140         | -54          | -2           | 44           | 95           | 150          | -50       | -10   | -62   | -96   | nm    | 117   | 58    | (511.5)        |
| <b>Pretax Profit (PTP)</b>                       | <b>575</b>   | <b>596</b>   | <b>886</b>   | <b>1,123</b> | <b>1,262</b> | <b>1,395</b> | <b>1,507</b> | nm        | 4     | 49    | 27    | 12    | 11    | 8     | 10.3           |
| Taxation   | -196         | -146         | -217         | -272         | -303         | -335         | -362         | nm        | -25   | 49    | 25    | 11    | 11    | 8     | 10.0           |
| Overall Tax rate on PTP                          | 34           | 25           | 25           | 24           | 24           | 24           | 24           | 64        | -28   | 0     | -1    | -1    | 0     | 0     | (0.3)          |
| <b>Profit after Tax - Cont Operations</b>        | <b>379</b>   | <b>450</b>   | <b>669</b>   | <b>851</b>   | <b>959</b>   | <b>1,060</b> | <b>1,145</b> | nm        | 19    | 49    | 27    | 13    | 11    | 8     | 10.4           |
| <b>Profit after Tax</b>                          | <b>379</b>   | <b>450</b>   | <b>669</b>   | <b>851</b>   | <b>959</b>   | <b>1,060</b> | <b>1,145</b> | -89       | 19    | 49    | 27    | 13    | 11    | 8     | 10.4           |
| Minority Interests                               | -12          | -12          | -12          | -12          | -12          | -12          | -12          | -40       | 0     | 0     | 0     | 0     | 0     | 0     | 0.0            |
| Net Profit after Minority Interest               | 367          | 438          | 657          | 839          | 947          | 1,048        | 1,133        | -90       | 19    | 50    | 28    | 13    | 11    | 8     | 10.5           |
| <b>Core Profit after Tax</b>                     | <b>1,245</b> | <b>1,007</b> | <b>1,163</b> | <b>1,346</b> | <b>1,453</b> | <b>1,555</b> | <b>1,640</b> | 11        | -19   | 16    | 16    | 8     | 7     | 5     | 6.8            |
| Reported diluted EPS (EUR)                       | 1.69         | 2.01         | 3.02         | 3.86         | 4.36         | 4.82         | 5.21         | -90       | 19    | 50    | 28    | 13    | 11    | 8     | 10.5           |
| <b>Core EPS</b>                                  | <b>5.73</b>  | <b>4.63</b>  | <b>5.35</b>  | <b>6.19</b>  | <b>6.69</b>  | <b>7.15</b>  | <b>7.54</b>  | 10        | -19   | 16    | 16    | 8     | 7     | 5     | 6.8            |
| Dividends per Share Interim/Final (EUR)          | 1.50         | 1.02         | 1.12         | 1.38         | 1.55         | 1.72         | 1.86         | -53       | -32   | 9     | 23    | 13    | 11    | 8     | 10.5           |
| Dividend Cover on EPS                            | 1.13         | 1.97         | 2.70         | 2.80         | 2.80         | 2.80         | 2.80         | -78       | 75    | 37    | 4     | -0    | -0    | -0    | (0.0)          |
| Dividend Cover on Pre-exc EPS                    | 2.18         | 2.20         | 2.70         | 2.80         | 2.80         | 2.80         | 2.80         | 230       | 1     | 23    | 4     | 0     | 0     | 0     | 0.0            |
| WA Basic Shares (mn)                             | 217          | 217          | 217          | 217          | 217          | 217          | 217          | 1         | -0    | 0     | 0     | 0     | 0     | 0     | 0.0            |
| WA Shares Diluted (mn)                           | 217          | 217          | 217          | 217          | 217          | 217          | 217          | 1         | -0    | 0     | 0     | 0     | 0     | 0     | 0.0            |
| <b>Margins (% Sales)</b>                         |              |              |              |              |              |              |              |           |       |       |       |       |       |       |                |
| <i>Gross Profit</i>                              | 74.8         | 73.8         | 74.3         | 74.4         | 74.4         | 74.3         | 74.2         |           |       |       |       |       |       |       |                |
| <i>Operating Profit - pre-exceptionals</i>       | 15.0         | 10.4         | 11.5         | 13.3         | 14.1         | 14.8         | 15.3         |           |       |       |       |       |       |       |                |
| <i>Exceptional Items</i>                         | -5.3         | -0.9         | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |           |       |       |       |       |       |       |                |
| <i>EBIT</i>                                      | 9.7          | 9.5          | 11.6         | 13.3         | 14.1         | 14.8         | 15.3         |           |       |       |       |       |       |       |                |
| <i>Pretax Profit (PTP)</i>                       | 7.6          | 7.7          | 10.9         | 13.3         | 14.6         | 15.9         | 17.0         |           |       |       |       |       |       |       |                |
| <i>Profit after Tax</i>                          | 5.0          | 5.8          | 8.2          | 10.1         | 11.1         | 12.1         | 12.9         |           |       |       |       |       |       |       |                |
| <i>Net Profit after Minority Interest</i>        | 4.9          | 5.7          | 8.1          | 9.9          | 10.9         | 12.0         | 12.8         |           |       |       |       |       |       |       |                |
| <i>Core Profit after Tax</i>                     | 16.5         | 13.0         | 14.3         | 15.9         | 16.8         | 17.7         | 18.5         |           |       |       |       |       |       |       |                |
| <b>Costs (% Sales)</b>                           | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |           |       |       |       |       |       |       |                |
| <i>Cost of Sales</i>                             | 25.2         | 26.2         | 25.7         | 25.6         | 25.6         | 25.7         | 25.8         |           |       |       |       |       |       |       |                |
| <i>Marketing and Selling Expenses</i>            | 27.7         | 28.5         | 27.6         | 27.5         | 27.5         | 27.5         | 27.5         |           |       |       |       |       |       |       |                |
| <i>Administration Expenses</i>                   | 5.9          | 5.8          | 5.8          | 5.8          | 5.8          | 5.8          | 5.8          |           |       |       |       |       |       |       |                |
| <i>R&amp;D Expenses</i>                          | 16.3         | 17.8         | 17.6         | 17.0         | 16.9         | 16.7         | 16.6         |           |       |       |       |       |       |       |                |

Source: BofA Merrill Lynch Global Research



18 January 2010

**Table 11: Merck Segment Profit & Loss**

| Year to December (Euro mn)                       | 2008A        | 2009E        | 2010E        | 2011E        | 2012E        | 2013E        | 2014E        | % Chg YoY |           |          |           |          |          | CAGR<br>11-14E |            |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------|-----------|----------|-----------|----------|----------|----------------|------------|
|  |              |              |              |              |              |              |              | 2008A     | 2009E     | 2010E    | 2011E     | 2012E    | 2013E    |                | 2014E      |
| <b>Merck Sereno Sales</b>                        |              |              |              |              |              |              |              |           |           |          |           |          |          |                |            |
| Sales  | 4,650        | 4,986        | 5,257        | 5,499        | 5,626        | 5,672        | 5,701        | 11        | 7         | 5        | 5         | 2        | 1        | 1              | 1.2        |
| Royalty Income                                   | 337          | 316          | 305          | 299          | 290          | 276          | 262          | 25        | -6        | -3       | -2        | -3       | -5       | -5             | (4.3)      |
| Total Revenues                                   | 4,987        | 5,302        | 5,562        | 5,798        | 5,916        | 5,947        | 5,962        | 12        | 6         | 5        | 4         | 2        | 1        | 0              | 0.9        |
| Cost of Sales                                    | -796         | -858         | -894         | -929         | -945         | -947         | -946         | 15        | 8         | 4        | 4         | 2        | 0        | -0             | 0.6        |
| <i>% Sales</i>                                   | 16.0         | 16.2         | 16.1         | 16.0         | 16.0         | 15.9         | 15.9         |           |           |          |           |          |          |                |            |
| Gross Profit                                     | 4,191        | 4,445        | 4,668        | 4,869        | 4,971        | 5,000        | 5,016        | 11        | 6         | 5        | 4         | 2        | 1        | 0              | 1.0        |
| <i>Gross Margin %</i>                            | 84.0         | 83.8         | 83.9         | 84.0         | 84.0         | 84.1         | 84.1         |           |           |          |           |          |          |                |            |
| SG&A   | -1,959       | -2,158       | -2,258       | -2,308       | -2,325       | -2,302       | -2,278       | -1        | 10        | 5        | 2         | 1        | -1       | -1             | (0.4)      |
| <i>% of Revenues</i>                             | 39.3         | 40.7         | 40.6         | 39.8         | 39.3         | 38.7         | 38.2         |           |           |          |           |          |          |                |            |
| R&D Expenses                                     | -1,074       | -1,204       | -1,246       | -1,247       | -1,266       | -1,267       | -1,270       | 22        | 12        | 4        | 0         | 2        | 0        | 0              | 0.6        |
| <i>% of Revenues</i>                             | 21.5         | 22.7         | 22.4         | 21.5         | 21.4         | 21.3         | 21.3         |           |           |          |           |          |          |                |            |
| Operating Profit (pre-exc)                       | 594          | 519          | 600          | 750          | 815          | 867          | 904          | 66        | -13       | 16       | 25        | 9        | 6        | 4              | 6.4        |
| <i>Operating Margin %</i>                        | 11.9         | 9.8          | 10.8         | 12.9         | 13.8         | 14.6         | 15.2         |           |           |          |           |          |          |                |            |
| EBIT   | 240          | 449          | 600          | 750          | 815          | 867          | 904          | nm        | 87        | 34       | 25        | 9        | 6        | 4              | 6.4        |
| <i>Margin %</i>                                  | 4.8          | 8.5          | 10.8         | 12.9         | 13.8         | 14.6         | 15.2         |           |           |          |           |          |          |                |            |
| <b>Core EBIT (pre-exc, pre-amort, pre-restr)</b> | <b>1,197</b> | <b>1,086</b> | <b>1,164</b> | <b>1,314</b> | <b>1,380</b> | <b>1,432</b> | <b>1,468</b> | <b>6</b>  | <b>-9</b> | <b>7</b> | <b>13</b> | <b>5</b> | <b>4</b> | <b>3</b>       | <b>3.8</b> |
| <i>Core EBIT Margin %</i>                        | 24.0         | 20.5         | 20.9         | 22.7         | 23.3         | 24.1         | 24.6         |           |           |          |           |          |          |                |            |

Source: BofA Merrill Lynch Global Research

**Table 12: Merck Segment Profit & Loss (Contd)**

| Year to December (Euro mn)            | 2008A     | 2009E     | 2010E     | 2011E     | 2012E     | 2013E     | 2014E     | % Chg YoY |            |          |          |          |          | CAGR<br>11-14E |            |
|---------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|----------|----------|----------|----------|----------------|------------|
|                                       |           |           |           |           |           |           |           | 2008A     | 2009E      | 2010E    | 2011E    | 2012E    | 2013E    |                | 2014E      |
| <b>Consumer Healthcare</b>            |           |           |           |           |           |           |           |           |            |          |          |          |          |                |            |
| Sales                                 | 440       | 462       | 474       | 485       | 495       | 505       | 515       | 5         | 5          | 3        | 2        | 2        | 2        | 2              | 2.1        |
| Royalty Income                        | 2         | 2         | 2         | 2         | 2         | 2         | 2         | 20        | 5          | 5        | 5        | 5        | 5        | 5              | 5.0        |
| Total Revenues                        | 442       | 464       | 475       | 487       | 497       | 507       | 518       | 5         | 5          | 3        | 2        | 2        | 2        | 2              | 2.1        |
| Cost of Sales                         | -148      | -156      | -159      | -162      | -166      | -169      | -173      | 9         | 5          | 2        | 2        | 2        | 2        | 2              | 2.1        |
| <i>% of Sales</i>                     | 33.5      | 33.6      | 33.4      | 33.4      | 33.4      | 33.3      | 33.3      |           |            |          |          |          |          |                |            |
| Gross Profit                          | 294       | 308       | 317       | 324       | 331       | 338       | 345       | 4         | 5          | 3        | 2        | 2        | 2        | 2              | 2.1        |
| <i>Gross Margin %</i>                 | 66.5      | 66.4      | 66.6      | 66.6      | 66.6      | 66.7      | 66.7      |           |            |          |          |          |          |                |            |
| SG&A                                  | -213      | -246      | -252      | -258      | -264      | -269      | -274      | 2         | 15         | 3        | 2        | 2        | 2        | 2              | 2.1        |
| <i>% of Revenues</i>                  | 48.3      | 53.0      | 53.0      | 53.0      | 53.0      | 53.0      | 53.0      |           |            |          |          |          |          |                |            |
| R&D Expenses                          | -17       | -16       | -17       | -17       | -17       | -18       | -18       | 40        | -3         | 3        | 2        | 2        | 2        | 2              | 2.1        |
| <i>% of Revenues</i>                  | 3.8       | 3.5       | 3.5       | 3.5       | 3.5       | 3.5       | 3.5       |           |            |          |          |          |          |                |            |
| Operating Profit (pre-exc)            | 61        | 44        | 46        | 47        | 48        | 49        | 50        | 3         | -28        | 5        | 3        | 2        | 2        | 2              | 2.2        |
| <i>Operating Margin %</i>             | 13.9      | 9.5       | 9.7       | 9.7       | 9.7       | 9.7       | 9.7       |           |            |          |          |          |          |                |            |
| EBIT                                  | 61        | 44        | 46        | 47        | 48        | 49        | 50        | 3         | -28        | 5        | 3        | 2        | 2        | 2              | 2.2        |
| <i>Margin %</i>                       | 13.9      | 9.5       | 9.7       | 9.7       | 9.7       | 9.7       | 9.7       |           |            |          |          |          |          |                |            |
| <b>Core EBIT (pre-exc, pre-amort)</b> | <b>61</b> | <b>44</b> | <b>46</b> | <b>47</b> | <b>48</b> | <b>49</b> | <b>50</b> | <b>-1</b> | <b>-28</b> | <b>5</b> | <b>3</b> | <b>2</b> | <b>2</b> | <b>2</b>       | <b>2.2</b> |
| <i>Margin %</i>                       | 13.9      | 9.5       | 9.7       | 9.7       | 9.7       | 9.7       | 9.7       |           |            |          |          |          |          |                |            |

Source: BofA Merrill Lynch Global Research

**Table 13: Merck Segment Profit & Loss (Contd)**

| Year to December (Euro mn)            | 2008A       | 2009E       | 2010E       | 2011E       | 2012E       | 2013E       | 2014E       | % Chg YoY  |            |           |           |          |          | CAGR<br>11-14E |            |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|-----------|----------|----------|----------------|------------|
|                                       |             |             |             |             |             |             |             | 2008A      | 2009E      | 2010E     | 2011E     | 2012E    | 2013E    |                | 2014E      |
| <b>Liquid Crystals</b>                |             |             |             |             |             |             |             |            |            |           |           |          |          |                |            |
| Sales                                 | 865         | 709         | 780         | 842         | 884         | 920         | 947         | -5         | -18        | 10        | 8         | 5        | 4        | 3              | 4.0        |
| Royalty Income                        | 12          | 13          | 13          | 13          | 14          | 14          | 15          | 95         | 3          | 3         | 3         | 3        | 3        | 3              | 3.0        |
| Total Revenues                        | 877         | 722         | 793         | 856         | 898         | 934         | 962         | -4         | -18        | 10        | 8         | 5        | 4        | 3              | 4.0        |
| Cost of Sales                         | -336        | -351        | -351        | -379        | -398        | -414        | -426        | 10         | 4          | 0         | 8         | 5        | 4        | 3              | 4.0        |
| <i>% of Sales</i>                     | <i>38.4</i> | <i>48.6</i> | <i>44.3</i> | <i>44.3</i> | <i>44.3</i> | <i>44.3</i> | <i>44.3</i> |            |            |           |           |          |          |                |            |
| Gross Profit                          | 541         | 371         | 442         | 477         | 500         | 520         | 536         | -12        | -31        | 19        | 8         | 5        | 4        | 3              | 4.0        |
| <i>Gross Margin %</i>                 | <i>61.6</i> | <i>51.4</i> | <i>55.7</i> | <i>55.7</i> | <i>55.7</i> | <i>55.7</i> | <i>55.7</i> |            |            |           |           |          |          |                |            |
| SG&A                                  | -61         | -58         | -71         | -73         | -76         | -79         | -82         | 44         | -6         | 24        | 2         | 5        | 4        | 3              | 4.0        |
| <i>% of Revenues</i>                  | <i>7.0</i>  | <i>8.0</i>  | <i>9.0</i>  | <i>8.5</i>  | <i>8.5</i>  | <i>8.5</i>  | <i>8.5</i>  |            |            |           |           |          |          |                |            |
| R&D Expenses                          | -85         | -95         | -109        | -116        | -117        | -112        | -115        | 8          | 12         | 14        | 6         | 1        | -4       | 3              | (0.0)      |
| <i>% of Revenues</i>                  | <i>9.7</i>  | <i>13.2</i> | <i>13.7</i> | <i>13.5</i> | <i>13.0</i> | <i>12.0</i> | <i>12.0</i> |            |            |           |           |          |          |                |            |
| Operating Profit (pre-exc)            | 391         | 214         | 259         | 285         | 304         | 325         | 335         | -20        | -45        | 21        | 10        | 7        | 7        | 3              | 5.5        |
| <i>Operating Margin %</i>             | <i>44.6</i> | <i>29.7</i> | <i>32.6</i> | <i>33.3</i> | <i>33.8</i> | <i>34.8</i> | <i>34.8</i> |            |            |           |           |          |          |                |            |
| EBIT                                  | 391         | 214         | 259         | 285         | 304         | 325         | 335         | -20        | -45        | 21        | 10        | 7        | 7        | 3              | 5.5        |
| <i>Margin %</i>                       | <i>44.6</i> | <i>29.7</i> | <i>32.6</i> | <i>33.3</i> | <i>33.8</i> | <i>34.8</i> | <i>34.8</i> |            |            |           |           |          |          |                |            |
| <b>Core EBIT (pre-exc, pre-amort)</b> | <b>391</b>  | <b>214</b>  | <b>259</b>  | <b>285</b>  | <b>304</b>  | <b>325</b>  | <b>335</b>  | <b>-20</b> | <b>-45</b> | <b>21</b> | <b>10</b> | <b>7</b> | <b>7</b> | <b>3</b>       | <b>5.5</b> |
| <i>Margin %</i>                       | <i>44.6</i> | <i>29.7</i> | <i>32.6</i> | <i>33.3</i> | <i>33.8</i> | <i>34.8</i> | <i>34.8</i> |            |            |           |           |          |          |                |            |

Source: BofA Merrill Lynch Global Research

**Table 14: Merck Segment Profit & Loss (Contd)**

| Year to December (Euro mn)             | 2008A       | 2009E       | 2010E       | 2011E       | 2012E       | 2013E       | 2014E       | % Chg YoY |            |           |          |          |          | CAGR<br>11-14E |            |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|------------|-----------|----------|----------|----------|----------------|------------|
|  |             |             |             |             |             |             |             | 2008A     | 2009E      | 2010E     | 2011E    | 2012E    | 2013E    |                | 2014E      |
| <b>Performance &amp; Life Sciences</b> |             |             |             |             |             |             |             |           |            |           |          |          |          |                |            |
| Sales                                  | 1,241       | 1,228       | 1,290       | 1,316       | 1,342       | 1,369       | 1,396       | 1         | -1         | 5         | 2        | 2        | 2        | 2              | 2.0        |
| Royalty Income                         | 5           | 5           | 6           | 6           | 6           | 7           | 7           | 46        | 5          | 5         | 5        | 5        | 5        | 5              | 5.0        |
| Total Revenues                         | 1,246       | 1,234       | 1,296       | 1,322       | 1,348       | 1,375       | 1,403       | 1         | -1         | 5         | 2        | 2        | 2        | 2              | 2.0        |
| Cost of Sales                          | -617        | -657        | -688        | -699        | -710        | -721        | -733        | -0        | 7          | 5         | 2        | 2        | 2        | 2              | 1.6        |
| <i>% of Sales</i>                      | <i>49.5</i> | <i>53.3</i> | <i>53.1</i> | <i>52.9</i> | <i>52.7</i> | <i>52.5</i> | <i>52.2</i> |           |            |           |          |          |          |                |            |
| Gross Profit                           | 629         | 577         | 608         | 623         | 638         | 654         | 670         | 2         | -8         | 5         | 2        | 2        | 2        | 2              | 2.5        |
| <i>Gross Margin %</i>                  | <i>50.5</i> | <i>46.7</i> | <i>46.9</i> | <i>47.1</i> | <i>47.3</i> | <i>47.5</i> | <i>47.8</i> |           |            |           |          |          |          |                |            |
| SG&A                                   | -401        | -422        | -440        | -447        | -453        | -459        | -466        | -2        | 5          | 4         | 1        | 1        | 1        | 1              | 1.4        |
| <i>% of Revenues</i>                   | <i>32.2</i> | <i>34.2</i> | <i>34.0</i> | <i>33.8</i> | <i>33.6</i> | <i>33.4</i> | <i>33.2</i> |           |            |           |          |          |          |                |            |
| R&D Expenses                           | -58         | -58         | -61         | -62         | -63         | -65         | -66         | 0         | -1         | 5         | 2        | 2        | 2        | 2              | 2.0        |
| <i>% of Revenues</i>                   | <i>4.7</i>  | <i>4.7</i>  | <i>4.7</i>  | <i>4.7</i>  | <i>4.7</i>  | <i>4.7</i>  | <i>4.7</i>  |           |            |           |          |          |          |                |            |
| Operating Profit (pre-exc)             | 167         | 94          | 104         | 111         | 119         | 127         | 135         | 15        | -44        | 11        | 7        | 7        | 7        | 7              | 6.8        |
| <i>Operating Margin %</i>              | <i>13.4</i> | <i>7.6</i>  | <i>8.0</i>  | <i>8.4</i>  | <i>8.8</i>  | <i>9.2</i>  | <i>9.7</i>  |           |            |           |          |          |          |                |            |
| EBIT                                   | 121         | 95          | 105         | 113         | 120         | 128         | 137         | -17       | -21        | 11        | 7        | 7        | 7        | 6              | 6.7        |
| <i>Margin %</i>                        | <i>9.7</i>  | <i>7.7</i>  | <i>8.1</i>  | <i>8.5</i>  | <i>8.9</i>  | <i>9.3</i>  | <i>9.7</i>  |           |            |           |          |          |          |                |            |
| <b>Core EBIT (pre-exc, pre-amort)</b>  | <b>167</b>  | <b>94</b>   | <b>104</b>  | <b>111</b>  | <b>119</b>  | <b>127</b>  | <b>135</b>  | <b>13</b> | <b>-44</b> | <b>11</b> | <b>7</b> | <b>7</b> | <b>7</b> | <b>7</b>       | <b>6.8</b> |
| <i>Margin %</i>                        | <i>13.4</i> | <i>7.6</i>  | <i>8.0</i>  | <i>8.4</i>  | <i>8.8</i>  | <i>9.2</i>  | <i>9.7</i>  |           |            |           |          |          |          |                |            |

Source: BofA Merrill Lynch Global Research

18 January 2010

**Table 15: Balance Sheet**

| (EUR millions Dec YE)                             | 2007A         | 2008A            | 2009E         | 2010E         | 2011E         | 2012E         | 2013E         | 2014E         |
|---|---------------|------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Non-current Assets</b>                         | <b>11,097</b> | <b>11,286</b>    | <b>10,994</b> | <b>10,709</b> | <b>10,424</b> | <b>10,129</b> | <b>9,817</b>  | <b>9,485</b>  |
| Intangible Assets (Net)                           | 8,165         | 8,203            | 7,785         | 7,375         | 6,971         | 6,571         | 6,174         | 5,778         |
| Property, Plant and Equipment (Net)               | 2,275         | 2,440            | 2,566         | 2,692         | 2,811         | 2,916         | 3,001         | 3,064         |
| Investments at Equity                             | 1             | 1                | 1             | 1             | 1             | 1             | 1             | 1             |
| Other Long-term Assets                            | 656           | 641              | 641           | 641           | 641           | 641           | 641           | 641           |
| <b>Current Assets</b>                             | <b>3,826</b>  | <b>4,359</b>     | <b>5,929</b>  | <b>6,399</b>  | <b>7,519</b>  | <b>8,215</b>  | <b>9,500</b>  | <b>10,875</b> |
| Inventories                                       | 1,159         | 1,407            | 1,540         | 1,621         | 1,688         | 1,727         | 1,748         | 1,764         |
| Raw materials and Production Supplies             | 239           | 254              | 0             | 0             | 0             | 0             | 0             | 0             |
| Wip, Finished Goods & Goods for Resale            | 917           | 1,152            | 0             | 0             | 0             | 0             | 0             | 0             |
| Advance Payments                                  | 3             | 2                | 0             | 0             | 0             | 0             | 0             | 0             |
| Trade Accounts Receivable                         | 1,378         | 1,659            | 1,816         | 1,911         | 1,990         | 2,036         | 2,061         | 2,080         |
| Other Current Assets                              | 297           | 422              | 422           | 422           | 422           | 422           | 422           | 422           |
| Cash, Equivalents & ST Investments                | 992           | 870              | 2,151         | 2,446         | 3,419         | 4,030         | 5,269         | 6,609         |
| Cash and Cash Equivalents                         | 427           | 693              | 1,975         | 2,269         | 3,243         | 3,853         | 5,092         | 6,432         |
| Marketable securities and financial assets        | 565           | 177              | 177           | 177           | 177           | 177           | 177           | 177           |
| <b>Total Assets</b>                               | <b>14,922</b> | <b>15,644.70</b> | <b>16,923</b> | <b>17,108</b> | <b>17,943</b> | <b>18,345</b> | <b>19,317</b> | <b>20,360</b> |
| <b>Current Liabilities</b>                        | <b>2,571</b>  | <b>2,378</b>     | <b>2,758</b>  | <b>2,346</b>  | <b>2,919</b>  | <b>2,462</b>  | <b>2,485</b>  | <b>2,503</b>  |
| Current Financial Liabilities                     | 299           | 265              | 500           | -             | 500           | -             | -             | -             |
| Leasing Obligations                               | 1             | 1                | 1             | 1             | 1             | 1             | 1             | 1             |
| Trade Accounts Payable                            | 647           | 844              | 923           | 971           | 1,012         | 1,035         | 1,048         | 1,058         |
| Other Current Liabilities                         | 989           | 694              | 760           | 799           | 832           | 852           | 862           | 870           |
| Tax Liabilities                                   | 337           | 347              | 347           | 347           | 347           | 347           | 347           | 347           |
| Current Provisions                                | 297           | 227              | 227           | 227           | 227           | 227           | 227           | 227           |
| Deferred Revenue                                  | 0             | 0                | 0             | 0             | 0             | 0             | 0             | 0             |
| <b>Non-current Liabilities</b>                    | <b>3,664</b>  | <b>3,703</b>     | <b>4,218</b>  | <b>4,218</b>  | <b>3,718</b>  | <b>3,718</b>  | <b>3,718</b>  | <b>3,718</b>  |
| Non-current Financial Liabilities (LT Debt)       | 1,038         | 1,072            | 1,587         | 1,587         | 1,087         | 1,087         | 1,087         | 1,087         |
| Leasing Obligations                               | 9             | 8                | 8             | 8             | 8             | 8             | 8             | 8             |
| Other Non-Current Liabilities                     | 40            | 20               | 20            | 20            | 20            | 20            | 20            | 20            |
| Long-term Provisions                              | 1,756         | 1,707            | 1,707         | 1,707         | 1,707         | 1,707         | 1,707         | 1,707         |
| Deferred Tax Liabilities                          | 822           | 896              | 896           | 896           | 896           | 896           | 896           | 896           |
| Deferred Income                                   | 0             | 0                | 0             | 0             | 0             | 0             | 0             | 0             |
| <b>Total Shareholders' Equity</b>                 | <b>8,626</b>  | <b>9,505</b>     | <b>9,877</b>  | <b>10,462</b> | <b>11,212</b> | <b>12,058</b> | <b>12,996</b> | <b>14,009</b> |
| Share Capital                                     | 565           | 565              | 565           | 565           | 565           | 565           | 565           | 565           |
| Reserves  | 8,061         | 8,940            | 9,312         | 9,897         | 10,647        | 11,493        | 12,430        | 13,443        |
| Retained earnings                                 | 4,247         | 5,127            | 5,498         | 6,083         | 6,833         | 7,679         | 8,617         | 9,630         |
| Additional Paid-in Capital                        | 3,814         | 3,814            | 3,814         | 3,814         | 3,814         | 3,814         | 3,814         | 3,814         |
| Minority Interests                                | 62            | 58               | 70            | 82            | 94            | 106           | 118           | 130           |
| <b>Total Liabilities and Shareholders' Equity</b> | <b>14,922</b> | <b>15,644.70</b> | <b>16,923</b> | <b>17,108</b> | <b>17,943</b> | <b>18,345</b> | <b>19,317</b> | <b>20,360</b> |
| Total Long term debt                              | 1,047         | 1,080            | 1,595         | 1,595         | 1,095         | 1,095         | 1,095         | 1,095         |
| Total short term debt                             | 300           | 266              | 501           | 1             | 501           | 1             | 1             | 1             |
| Gross debt  | 1,347         | 1,346            | 2,096         | 1,596         | 1,596         | 1,096         | 1,096         | 1,096         |
| Cash & equivalents                                | 992           | 870              | 2,151         | 2,446         | 3,419         | 4,030         | 5,269         | 6,609         |
| <b>Net debt/(cash)</b>                            | <b>355</b>    | <b>477</b>       | <b>-55</b>    | <b>-849</b>   | <b>-1,823</b> | <b>-2,934</b> | <b>-4,173</b> | <b>-5,512</b> |

Source: BofA Merrill Lynch Global Research

18 January 2010

**Table 16: Cash Flow Statement**

| (EUR millions Dec YE)                                | 2007A         | 2008A        | 2009E        | 2010E        | 2011E        | 2012E        | 2013E        | 2014E        |
|--|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Profit after Tax                                     | 3,520         | 379.10       | 450          | 669          | 851          | 959          | 1,060        | 1,145        |
| Depreciation and Amortisation                        | 924           | 1,215        | 871          | 894          | 919          | 944          | 970          | 995          |
| Depreciation   | 288           | 278          | 298          | 322          | 346          | 371          | 397          | 423          |
| Depreciation / Gross TFA %                           | 6.3%          | 5.3%         | 5.3%         | 5.3%         | 5.3%         | 5.3%         | 5.3%         | 5.3%         |
| Goodwill Amortisation                                | -             | 42           | -            | -            | -            | -            | -            | -            |
| Other Amortisation                                   | 636           | 866          | 573          | 573          | 573          | 573          | 573          | 573          |
| Other Adjustments and Exceptionals                   | -2,757        | -8           | 0            | 0            | 0            | 0            | 0            | 0            |
| Decrease/(Increase) in Inventories                   | -171          | -226         | -133         | -81          | -67          | -39          | -21          | -16          |
| Decrease/(Increase) in Receivables                   | -153          | -268         | -156         | -95          | -79          | -46          | -25          | -19          |
| Increase/(Decrease) in Payables                      | 131           | 189          | 79           | 48           | 40           | 24           | 12           | 10           |
| Change in WC   | -192          | -304         | -209         | -127         | -106         | -62          | -33          | -26          |
| Increase/(Decrease) in Provisions                    | 53            | -71          | 0            | 0            | 0            | 0            | 0            | 0            |
| Changes in Other Operating Assets & Liabilities      | -330          | -187         | 65           | 40           | 33           | 19           | 10           | 8            |
| <b>Net Cash Flow from Operating Activities</b>       | <b>1,218</b>  | <b>1,024</b> | <b>1,177</b> | <b>1,476</b> | <b>1,697</b> | <b>1,860</b> | <b>2,007</b> | <b>2,123</b> |
| Purchase of Intangible Assets                        | -121          | -141         | -154         | -162         | -169         | -173         | -175         | -177         |
| Purchase of Property, Plant and Equipment            | -283          | -395         | -425         | -447         | -465         | -476         | -482         | -487         |
| Capex/Sales  | 4.0           | 5.6          | 5.5          | 5.5          | 5.5          | 5.5          | 5.5          | 5.5          |
| Capex/Depreciation                                   | 98.4%         | 142.0%       | 142.3%       | 138.9%       | 134.4%       | 128.3%       | 121.4%       | 115.0%       |
| Acquisitions & investments in other financial assets | -7,318        | -78          | 0            | 0            | 0            | 0            | 0            | 0            |
| Disposals of Assets                                  | 4,996         | 36           | 0            | 0            | 0            | 0            | 0            | 0            |
| Changes in Securities                                | 35            | -8           | 0            | 0            | 0            | 0            | 0            | 0            |
| Changes in Other Financial Assets                    | -36           | 504          | 0            | 0            | 0            | 0            | 0            | 0            |
| <b>Net Cash Flow from Investing Activities</b>       | <b>-2,728</b> | <b>-82</b>   | <b>-579</b>  | <b>-609</b>  | <b>-634</b>  | <b>-649</b>  | <b>-657</b>  | <b>-663</b>  |
| Dividend Payments                                    | -77           | -213         | -66          | -72          | -89          | -100         | -111         | -120         |
| Capital Changes                                      | 2,038         | 0            | 0            | 0            | 0            | 0            | 0            | 0            |
| Debt Changes   | 67            | -215         | 750          | -500         | 0            | -500         | 0            | 0            |
| Other Financing Cash Flows                           | -536          | -240         | 0            | 0            | 0            | 0            | 0            | 0            |
| <b>Net Cash Flow from Financing Activities</b>       | <b>1,493</b>  | <b>-667</b>  | <b>684</b>   | <b>-572</b>  | <b>-89</b>   | <b>-600</b>  | <b>-111</b>  | <b>-120</b>  |
| Effect of FX on Cash and Cash Equivalents            | -17           | -10          | 0            | 0            | 0            | 0            | 0            | 0            |
| <b>Increase in Cash</b>                              | <b>-34</b>    | <b>266</b>   | <b>1,282</b> | <b>294</b>   | <b>974</b>   | <b>610</b>   | <b>1,239</b> | <b>1,340</b> |
| Cash and cash equivalents at January 1               | 460           | 427          | 693          | 1,975        | 2,269        | 3,243        | 3,853        | 5,092        |
| Cash and cash equivalents at end of the period       | 427           | 693          | 1,975        | 2,269        | 3,243        | 3,853        | 5,092        | 6,432        |
| Operating Cash Flow                                  | 1,218         | 1,024        | 1,177        | 1,476        | 1,697        | 1,860        | 2,007        | 2,123        |
| Investing Cash Flow                                  | -2,728        | -82          | -579         | -609         | -634         | -649         | -657         | -663         |
| Financing Cash Flow                                  | 1,476         | -676         | 684          | -572         | -89          | -600         | -111         | -120         |
| Net Change in Cash                                   | -34           | 266          | 1,282        | 294          | 974          | 610          | 1,239        | 1,340        |
| Free Cash Flow                                       | 814           | 488          | 598          | 867          | 1,063        | 1,211        | 1,350        | 1,460        |
| CFPS   | -0.16         | 1.22         | 5.90         | 1.35         | 4.48         | 2.81         | 5.70         | 6.16         |
| Free CFPS  | 3.77          | 2.25         | 2.75         | 3.99         | 4.89         | 5.57         | 6.21         | 6.72         |

Source: BofA Merrill Lynch Global Research

## Price objective basis & risk

### Merck KGaA (MKGAF)

We set a PO of Eur67 based on our DCF valuation. Within our DCF we assume a WACC of 10.3% and terminal growth rate of 1.1%.

Our PO assumes the shares trade on a 2011E PE of 10.8, a c8% discount to our target sector PE of 11.8. We assume a discount rating despite its premium growth (11-14E EPS CAGR of 6.8% vs the EU sector average of 3.2) given potential earnings risks and lack of catalysts, in our opinion.

Risks to our price objective are: (1) Greater than expected price erosion in the liquid crystal market (2) Failure of Erbitux to retain market share in colorectal cancer (mCRC) (3) Risk to longer-term Rebif forecasts from oral competition (e.g. FTY720) (4) Failure of cladribine to obtain 10 years of EU data exclusivity

## Analyst Certification

I, Sachin Jain, CFA, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

### EMEA - Pharmaceuticals Coverage Cluster

| Investment rating   | Company         | BofAML ticker | Bloomberg symbol | Analyst          |
|---------------------|-----------------|---------------|------------------|------------------|
| <b>BUY</b>          |                 |               |                  |                  |
|                     | Amirall         | LBTSF         | ALM SM           | Jamie Clark, CFA |
|                     | Bayer           | BAYZF         | BAYN GR          | Sachin Jain, CFA |
|                     | Bayer           | BAYRY         | BAYRY US         | Sachin Jain, CFA |
|                     | Hikma           | HKMPF         | HIK LN           | Jamie Clark, CFA |
|                     | Roche Holdings  | RHHBF         | ROG VX           | Sachin Jain, CFA |
|                     | Roche Holdings  | RHHBY         | RHHBY US         | Sachin Jain, CFA |
|                     | Sanofi          | SNY           | SNY US           | Graham Parry     |
|                     | Sanofi          | SNYNF         | SAN FP           | Graham Parry     |
|                     | Shire           | SHPGF         | SHP LN           | Graham Parry     |
|                     | Shire           | SHPGY         | SHPGY US         | Graham Parry     |
| <b>NEUTRAL</b>      |                 |               |                  |                  |
|                     | AstraZeneca     | AZN           | AZN US           | Sachin Jain, CFA |
|                     | AstraZeneca     | AZNCF         | AZN LN           | Sachin Jain, CFA |
|                     | Novartis (Reg.) | NVS           | NVS US           | Graham Parry     |
|                     | Novartis (Reg.) | NVSEF         | NOVN VX          | Graham Parry     |
|                     | Novo Nordisk    | NONOF         | NOVOB DC         | Sachin Jain, CFA |
|                     | Novo Nordisk    | NVO           | NVO US           | Sachin Jain, CFA |
|                     | Stada Group     | STDAF         | SAZ GR           | Jamie Clark, CFA |
| <b>UNDERPERFORM</b> |                 |               |                  |                  |
|                     | Galenica        | GNHAF         | GALN SW          | Jamie Clark, CFA |
|                     | Gedeon Richter  | RGEDF         | RICHT HB         | Jamie Clark, CFA |
|                     | GlaxoSmithKline | GSK           | GSK US           | Graham Parry     |
|                     | GlaxoSmithKline | GLAXF         | GSK LN           | Graham Parry     |
|                     | Merck KGaA      | MKGAF         | MRK GR           | Sachin Jain, CFA |
|                     | UCB             | UCBJF         | UCB BB           | Brigitte de Lima |

18 January 2010

**iQmethod<sup>SM</sup> Measures Definitions**

| <b>Business Performance</b> | <b>Numerator</b>   | <b>Denominator</b>  |
|-----------------------------|--|---|
| Return On Capital Employed  | $\text{NOPAT} = (\text{EBIT} + \text{Interest Income}) * (1 - \text{Tax Rate}) + \text{Goodwill Amortization}$ | Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill |
| Return On Equity            | Net Income   | Shareholders' Equity  |
| Operating Margin            | Operating Profit   | Sales   |
| Earnings Growth             | Expected 5-Year CAGR From Latest Actual  | N/A   |
| Free Cash Flow              | Cash Flow From Operations – Total Capex  | N/A   |

**Quality of Earnings**

|                          |  |                  |
|--------------------------|--|------------------|
| Cash Realization Ratio   | Cash Flow From Operations                      | Net Income       |
| Asset Replacement Ratio  | Capex  | Depreciation     |
| Tax Rate                 | Tax Charge                                     | Pre-Tax Income   |
| Net Debt-To-Equity Ratio | Net Debt = Total Debt, Less Cash & Equivalents | Total Equity     |
| Interest Cover           | EBIT   | Interest Expense |

**Valuation Toolkit**

|                          |  |  |
|--------------------------|--|--|
| Price / Earnings Ratio   | Current Share Price  | Diluted Earnings Per Share (Basis As Specified)          |
| Price / Book Value       | Current Share Price  | Shareholders' Equity / Current Basic Shares              |
| Dividend Yield           | Annualised Declared Cash Dividend  | Current Share Price                                      |
| Free Cash Flow Yield     | Cash Flow From Operations – Total Capex  | Market Cap. = Current Share Price * Current Basic Shares |
| Enterprise Value / Sales | $\text{EV} = \text{Current Share Price} * \text{Current Shares} + \text{Minority Equity} + \text{Net Debt} + \text{Sales} + \text{Other LT Liabilities}$ |  |
| EV / EBITDA              | Enterprise Value   | Basic EBIT + Depreciation + Amortization                 |

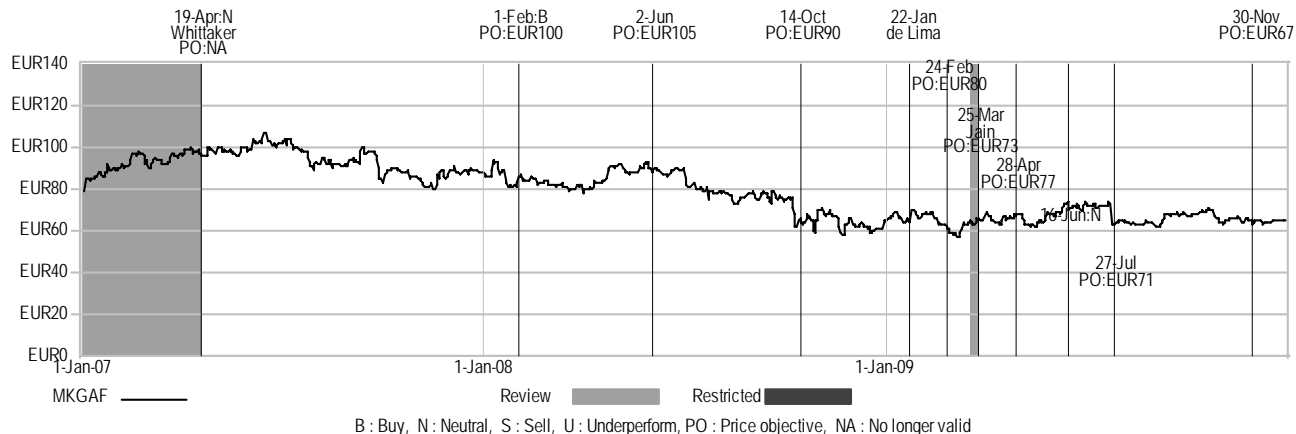
*iQmethod<sup>SM</sup>* is the set of BoFA Merrill Lynch standard measures that serve to maintain global consistency under three broad headings: Business Performance, Quality of Earnings, and validations. The key features of *iQmethod* are: A consistently structured, detailed, and transparent methodology. Guidelines to maximize the effectiveness of the comparative valuation process, and to identify some common pitfalls.

*iQdatabase<sup>®</sup>* is our real-time global research database that is sourced directly from our equity analysts' earnings models and includes forecasted as well as historical data for income statements, balance sheets, and cash flow statements for companies covered by BoFA Merrill Lynch.

*iQprofile<sup>SM</sup>*, *iQmethod<sup>SM</sup>* are service marks of Merrill Lynch & Co., Inc. *iQdatabase<sup>®</sup>* is a registered service mark of Merrill Lynch & Co., Inc.

## Important Disclosures

### MKGAF Price Chart



B : Buy, N : Neutral, S : Sell, U : Underperform, PO : Price objective, NA : No longer valid  
 \*Prior to May 31, 2008, the investment opinion system included Buy, Neutral and Sell. As of May 31, 2008, the investment opinion system includes Buy, Neutral and Underperform. Dark Grey shading indicates that a security is restricted with the opinion suspended. Light grey shading indicates that a security is under review with the opinion withdrawn. The current investment opinion key is contained at the end of the report. Chart is current as of December 31, 2009 or such later date as indicated.

BofAML price charts do not reflect analysts' coverage of the stock at prior firms. Historical price charts relating to companies covered as of December 31, 2008 by former Banc of America Securities LLC (BAS) analysts are available to BAS clients on the BAS website.\*

### Investment Rating Distribution: Health Care Group (as of 01 Jan 2010)

| Coverage Universe | Count | Percent | Inv. Banking Relationships* | Count | Percent |
|-------------------|-------|---------|-----------------------------|-------|---------|
| Buy               | 95    | 49.74%  | Buy                         | 58    | 64.44%  |
| Neutral           | 52    | 27.23%  | Neutral                     | 34    | 70.83%  |
| Sell              | 44    | 23.04%  | Sell                        | 26    | 61.90%  |

### Investment Rating Distribution: Global Group (as of 01 Jan 2010)

| Coverage Universe | Count | Percent | Inv. Banking Relationships* | Count | Percent |
|-------------------|-------|---------|-----------------------------|-------|---------|
| Buy               | 1699  | 50.78%  | Buy                         | 904   | 58.82%  |
| Neutral           | 841   | 25.13%  | Neutral                     | 491   | 65.03%  |
| Sell              | 806   | 24.09%  | Sell                        | 368   | 49.80%  |

\* Companies in respect of which MLPF&S or an affiliate has received compensation for investment banking services within the past 12 months. For purposes of this distribution, a stock rated Underperform is included as a Sell.

**FUNDAMENTAL EQUITY OPINION KEY:** Opinions include a Volatility Risk Rating, an Investment Rating and an Income Rating. **VOLATILITY RISK RATINGS**, indicators of potential price fluctuation, are: A - Low, B - Medium and C - High. **INVESTMENT RATINGS** reflect the analyst's assessment of a stock's: (i) absolute total return potential and (ii) attractiveness for investment relative to other stocks within its *Coverage Cluster* (defined below). There are three investment ratings: 1 - Buy stocks are expected to have a total return of at least 10% and are the most attractive stocks in the coverage cluster; 2 - Neutral stocks are expected to remain flat or increase in value and are less attractive than Buy rated stocks and 3 - Underperform stocks are the least attractive stocks in a coverage cluster. Analysts assign investment ratings considering, among other things, the 0-12 month total return expectation for a stock and the firm's guidelines for ratings dispersions (shown in the table below). The current price objective for a stock should be referenced to better understand the total return expectation at any given time. The price objective reflects the analyst's view of the potential price appreciation (depreciation).

| Investment rating | Total return expectation (within 12-month period of date of initial rating) | Ratings dispersion guidelines for coverage cluster* |
|-------------------|---|---|
| Buy               | ≥ 10%   | ≤ 70%   |
| Neutral           | ≥ 0%  | ≤ 30%   |
| Underperform      | N/A   | ≥ 20%   |

\* Ratings dispersions may vary from time to time where BofAML Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

**INCOME RATINGS**, indicators of potential cash dividends, are: 7 - same/higher (dividend considered to be secure), 8 - same/lower (dividend not considered to be secure) and 9 - pays no cash dividend. *Coverage Cluster* is comprised of stocks covered by a single analyst or two or more analysts sharing a common industry, sector, region or other classification(s). A stock's coverage cluster is included in the most recent BofAML Comment referencing the stock.

MLPF&S or one of its affiliates acts as a market maker for the equity securities recommended in the report: Merck KGaA.  
 The company is or was, within the last 12 months, an investment banking client of MLPF&S and/or one or more of its affiliates: Merck KGaA.  
 The company is or was, within the last 12 months, a non-securities business client of MLPF&S and/or one or more of its affiliates: Merck KGaA.  
 In the US, retail sales and/or distribution of this report may be made only in states where these securities are exempt from registration or have been qualified for sale: Merck KGaA.  
 MLPF&S or an affiliate has received compensation for investment banking services from this company within the past 12 months: Merck KGaA.

18 January 2010

MLPF&S or an affiliate expects to receive or intends to seek compensation for investment banking services from this company or an affiliate of the company within the next three months: Merck KGaA.

MLPF&S together with its affiliates beneficially owns one percent or more of the common stock of this company. If this report was issued on or after the 10th day of the month, it reflects the ownership position on the last day of the previous month. Reports issued before the 10th day of a month reflect the ownership position at the end of the second month preceding the date of the report: Merck KGaA.

MLPF&S or one of its affiliates is willing to sell to, or buy from, clients the common equity of the company on a principal basis: Merck KGaA.

The company is or was, within the last 12 months, a securities business client (non-investment banking) of MLPF&S and/or one or more of its affiliates: Merck KGaA.

The analyst(s) responsible for covering the securities in this report receive compensation based upon, among other factors, the overall profitability of Bank of America Corporation, including profits derived from investment banking revenues.

## Other Important Disclosures

**BofA Merrill Lynch (BofAML) Research refers to the combined Global Research operations of Merrill Lynch and BAS.**

Officers of MLPF&S or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.

**Merrill Lynch Research policies relating to conflicts of interest are described at <http://www.ml.com/media/43347.pdf>.**

**"Merrill Lynch" includes Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") and its affiliates, including BofA (defined below). "BofA" refers to Banc of America Securities LLC ("BAS"), Banc of America Securities Limited ("BASL") and their affiliates. Investors should contact their Merrill Lynch or BofA representative if they have questions concerning this report.**

**Information relating to Non-US affiliates of Merrill Lynch and Distribution of Affiliate Research Reports:**

MLPF&S, BAS, and BASL distribute, or may in the future distribute, research reports of the following non-US affiliates in the US (short name: legal name): Merrill Lynch (France): Merrill Lynch Capital Markets (France) SAS; Merrill Lynch (Frankfurt): Merrill Lynch International Bank Ltd, Frankfurt Branch; Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd; Merrill Lynch (Milan): Merrill Lynch International Bank Limited; MLPF&S (UK): Merrill Lynch, Pierce, Fenner & Smith Limited; Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited; Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd; Merrill Lynch (Canada): Merrill Lynch Canada Inc; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa; Merrill Lynch (Argentina): Merrill Lynch Argentina SA; Merrill Lynch (Japan): Merrill Lynch Japan Securities Co, Ltd; Merrill Lynch (Seoul): Merrill Lynch International Incorporated (Seoul Branch); Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd.; DSP Merrill Lynch (India): DSP Merrill Lynch Limited; PT Merrill Lynch (Indonesia): PT Merrill Lynch Indonesia; Merrill Lynch (KL) Sdn. Bhd.; Merrill Lynch (Malaysia): Merrill Lynch (Israel): Merrill Lynch Israel Limited; Merrill Lynch (Russia): Merrill Lynch CIS Limited, Moscow; Merrill Lynch (Turkey): Merrill Lynch Yatirim Bankasi A.S.; Merrill Lynch (Dubai): Merrill Lynch International, Dubai Branch; MLPF&S (Zürich rep. office): MLPF&S Incorporated Zürich representative office; Merrill Lynch (Spain): Merrill Lynch Capital Markets Espana, S.A.S.V.; Merrill Lynch (Brazil): Banco Merrill Lynch de Investimentos S.A.

This research report has been approved for publication in the United Kingdom by Merrill Lynch, Pierce, Fenner & Smith Limited and BASL, which are authorized and regulated by the Financial Services Authority; has been considered and distributed in Japan by Merrill Lynch Japan Securities Co, Ltd and Banc of America Securities - Japan, Inc., registered securities dealers under the Financial Instruments and Exchange Law in Japan; is distributed in Hong Kong by Merrill Lynch (Asia Pacific) Limited and Banc of America Securities Asia Limited, which are regulated by the Hong Kong SFC and the Hong Kong Monetary Authority; is issued and distributed in Taiwan by Merrill Lynch Securities (Taiwan) Ltd.; is issued and distributed in Malaysia by Merrill Lynch (KL) Sdn. Bhd., a licensed investment adviser regulated by the Malaysian Securities Commission; is issued and distributed in India by DSP Merrill Lynch Limited; and is issued and distributed in Singapore by Merrill Lynch International Bank Limited (Merchant Bank), Merrill Lynch (Singapore) Pte Ltd (Company Registration No.'s F 06872E and 198602883D respectively) and Bank of America Singapore Limited (Merchant Bank). Merrill Lynch International Bank Limited (Merchant Bank), Merrill Lynch (Singapore) Pte Ltd and Bank of America Singapore Limited (Merchant Bank) are regulated by the Monetary Authority of Singapore. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 provides this report in Australia in accordance with section 911B of the Corporations Act 2001 and neither it nor any of its affiliates involved in preparing this research report is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this report in Brazil.

This research report has been prepared and issued by MLPF&S and/or one or more of its non-US affiliates. MLPF&S is the distributor of this research report in the US and accepts full responsibility for research reports of its non-US affiliates distributed to MLPF&S clients in the US. Any US person (other than BAS, BAI and their respective clients) receiving this research report and wishing to effect any transaction in any security discussed in the report should do so through MLPF&S and not such foreign affiliates.

BAS distributes this research report to its clients and accepts responsibility for the distribution of this report in the US to BAS clients. Transactions by US persons that are BAS clients in any security discussed herein must be carried out through BAS.

**General Investment Related Disclosures:**

This research report provides general information only. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This report is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of any specific person. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this report and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this report.



18 January 2010

Securities and other financial instruments discussed in this report, or recommended, offered or sold by Merrill Lynch, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

This report may contain a short-term trading idea or recommendation, which highlights a specific near-term catalyst or event impacting the company or the market that is anticipated to have a short-term price impact on the equity securities of the company. Short-term trading ideas and recommendations are different from and do not affect a stock's fundamental equity rating, which reflects both a longer term total return expectation and attractiveness for investment relative to other stocks within its Coverage Cluster. Short-term trading ideas and recommendations may be more or less positive than a stock's fundamental equity rating.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned in this report. Investors in such securities and instruments, including ADRs, effectively assume currency risk.

UK Readers: The protections provided by the U.K. regulatory regime, including the Financial Services Scheme, do not apply in general to business coordinated by Merrill Lynch entities located outside of the United Kingdom. These disclosures should be read in conjunction with the BASL general policy statement on the handling of research conflicts, which is available upon request.

Officers of MLPF&S or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.

Merrill Lynch is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. Merrill Lynch may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

Merrill Lynch, through business units other than BofAML Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented in this report. Such ideas or recommendations reflect the different time frames, assumptions, views and analytical methods of the persons who prepared them, and Merrill Lynch is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this report.

In the event that the recipient received this report pursuant to a contract between the recipient and MLPF&S for the provision of research services for a separate fee, and in connection therewith MLPF&S may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom MLPF&S has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by MLPF&S). MLPF&S is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities mentioned in this report.

#### Copyright and General Information regarding Research Reports:

Copyright 2010 Merrill Lynch, Pierce, Fenner & Smith Incorporated. All rights reserved. iQmethod, iQmethod 2.0, iQprofile, iQtoolkit, iQworks are service marks of Merrill Lynch & Co., Inc. iQanalytics®, iQcustom®, iQdatabase® are registered service marks of Merrill Lynch & Co., Inc. This research report is prepared for the use of Merrill Lynch clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of Merrill Lynch. Merrill Lynch research reports are distributed simultaneously to internal and client websites and other portals by Merrill Lynch and are not publicly-available materials. Any unauthorized use or disclosure is prohibited. Receipt and review of this research report constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained in this report (including any investment recommendations, estimates or price targets) without first obtaining expressed permission from an authorized officer of Merrill Lynch.

Materials prepared by Merrill Lynch research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of Merrill Lynch, including investment banking personnel. Merrill Lynch has established information barriers between BofAML Research and certain business groups. As a result, Merrill Lynch does not disclose certain client relationships with, or compensation received from, such companies in research reports.

To the extent this report discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this report. Merrill Lynch research personnel's knowledge of legal proceedings in which any Merrill Lynch entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving companies mentioned in this report is based on public information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of Merrill Lynch in connection with the legal proceedings or matters relevant to such proceedings.

This report has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of MLPF&S, any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). Merrill Lynch policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

The information herein (other than disclosure information relating to Merrill Lynch and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This report may contain links to third-party websites. Merrill Lynch is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third-party websites is not part of this report and is not incorporated by reference into this report. The inclusion of a link in this report does not imply any endorsement by or any affiliation with Merrill Lynch. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. Merrill Lynch is not responsible for such terms and privacy policies and expressly disclaims any liability for them.

Subject to the quiet period applicable under laws of the various jurisdictions in which we distribute research reports and other legal and Merrill Lynch policy-related restrictions on the publication of research reports, fundamental equity reports are produced on a regular basis as necessary to keep the investment recommendation current.

Certain outstanding reports may contain discussions and/or investment opinions relating to securities, financial instruments and/or issuers that are no longer current. Always refer to the most recent research report relating to a company or issuer prior to making an investment decision.

In some cases, a company or issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such company or issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with BAS, MLPF&S or any of their affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies.

Neither Merrill Lynch nor any officer or employee of Merrill Lynch accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this report or its contents.