

# Transformative growth injection; Initiate Buy, \$50 PO

## Leading drug packaging vendor with high barriers to entry

West Pharmaceutical (West) is the leading manufacturer of parts used for medical injection systems and related packaging. We are positive on West's prospects due to a new product cycle that is likely to augment organic sales and EPS growth, which we think is not being fully appreciated by the Street.

## Positive on new product cycle

West is introducing many novel products including prefilled syringe systems and drug administration devices that should see solid adoption over the next few years as they help address key challenges faced by many healthcare customers today, including product recalls, drug waste, and, contamination. Most of these devices are based on Crystal Zenith (CZ) a proprietary resin with many favorable attributes over classic glass packaging, such as high breakage resistance and better compatibility with drugs. We are encouraged over the prospects as Amgen is already evaluating the product along with other undisclosed biopharmaceutical customers.

## Portfolio transformation & mkt trends likely to drive growth

A new product cycle along with favorable market trends, including growing demand for biological drugs and vaccines as well as exposure to top therapeutic areas (eg, cancer, rheumatoid arthritis) should accelerate organic sales growth for West to 8% (2013-18E CAGR) vs. 4% over the last five years (2007-2012 CAGR). Due to premium pricing for the company's new products, we project 400bp operating margin expansion over the next five years, leading to 16% EPS growth.

## Product trial periods & raw material costs are key PO risks

WST shares are currently trading at about 11x our 2014 EBITDA est. Our \$50 PO is based on 13x our '14 EBITDA est. vs ~10x for West's peers. In our view a premium is warranted due to a new product cycle, accelerating organic sales, and margin expansion. Risks are product adoption timing due to evaluation periods, volatility in raw material costs and currencies, and changes in customer order lead times.

## Estimates (Dec)

| (US\$)                    | 2011A | 2012A | 2013E | 2014E | 2015E |
|---------------------------|-------|-------|-------|-------|-------|
| EPS                       | 1.17  | 1.38  | 1.60  | 1.92  | 2.20  |
| GAAP EPS                  | 1.08  | 1.15  | 1.62  | 1.92  | 2.20  |
| EPS Change (YoY)          | 11.4% | 17.9% | 15.9% | 20.0% | 14.6% |
| Consensus EPS (Bloomberg) |       |       | 1.60  | 1.83  | NA    |
| DPS                       | 0.35  | 0.37  | 0.39  | 0.43  | 0.47  |

## Valuation (Dec)

|                       | 2011A | 2012A | 2013E | 2014E | 2015E |
|-----------------------|-------|-------|-------|-------|-------|
| P/E                   | 34.1x | 28.9x | 24.9x | 20.8x | 18.1x |
| GAAP P/E              | 36.9x | 34.7x | 24.6x | 20.8x | 18.1x |
| Dividend Yield        | 0.9%  | 0.9%  | 1.0%  | 1.1%  | 1.2%  |
| EV / EBITDA*          | 16.2x | 14.3x | 12.5x | 11.0x | 9.9x  |
| Free Cash Flow Yield* | 1.3%  | 2.0%  | 2.8%  | 3.3%  | 3.8%  |

\* For full definitions of *iQmethod*<sup>SM</sup> measures, see page 25.

Equity | United States | Health Care Distribution & Technology  
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## Stock Data

|                              |                  |
|------------------------------|------------------|
| Price                        | US\$39.88        |
| Price Objective              | US\$50.00        |
| Date Established             | 8-Oct-2013       |
| Investment Opinion           | A-1-7            |
| Volatility Risk              | LOW              |
| 52-Week Range                | US\$25.25-41.54  |
| Mrkt Val / Shares Out (mn)   | US\$2,763 / 69.3 |
| BofAML Ticker / Exchange     | WST / NYS        |
| Bloomberg / Reuters          | WST US / WST.N   |
| ROE (2013E)                  | 12.7%            |
| Total Dbt to Cap (Jun-2013A) | NA               |
| Est. 5-Yr EPS / DPS Growth   | 16.4% / 8.5%     |

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Refer to important disclosures on page 26 to 28. Analyst Certification on Page 24. Price Objective Basis/Risk on page 24. Link to Definitions on page 24. 11319804

# iQprofile<sup>SM</sup> West Pharmaceutical Services

## iQmethod<sup>SM</sup> – Bus Performance\*

| (US\$ Millions)            | 2011A | 2012A | 2013E | 2014E | 2015E |
|----------------------------|-------|-------|-------|-------|-------|
| Return on Capital Employed | 7.7%  | 8.3%  | 8.7%  | 9.3%  | 9.6%  |
| Return on Equity           | 13.2% | 13.6% | 12.7% | 13.1% | 13.0% |
| Operating Margin           | 9.9%  | 11.2% | 11.8% | 13.0% | 13.8% |
| Free Cash Flow             | 35    | 56    | 76    | 90    | 106   |

## iQmethod<sup>SM</sup> – Quality of Earnings\*

| (US\$ Millions)          | 2011A | 2012A | 2013E | 2014E | 2015E |
|--------------------------|-------|-------|-------|-------|-------|
| Cash Realization Ratio   | 1.5x  | 1.9x  | 1.9x  | 1.8x  | 1.7x  |
| Asset Replacement Ratio  | 1.3x  | 1.7x  | 1.6x  | 1.6x  | 1.6x  |
| Tax Rate                 | 24.8% | 27.2% | 26.2% | 26.1% | 26.5% |
| Net Debt-to-Equity Ratio | 39.3% | 34.2% | 18.0% | 8.1%  | -0.3% |
| Interest Cover           | 6.1x  | 7.6x  | 8.6x  | 10.1x | 12.2x |

## Income Statement Data (Dec)

| (US\$ Millions)             | 2011A | 2012A | 2013E | 2014E | 2015E |
|-----------------------------|-------|-------|-------|-------|-------|
| Sales                       | 1,192 | 1,266 | 1,369 | 1,463 | 1,569 |
| % Change                    | 7.9%  | 6.2%  | 8.1%  | 6.9%  | 7.2%  |
| Gross Profit                | 339   | 388   | 435   | 477   | 520   |
| % Change                    | 6.7%  | 14.3% | 12.3% | 9.6%  | 8.9%  |
| EBITDA                      | 193   | 219   | 249   | 284   | 317   |
| % Change                    | 8.7%  | 13.1% | 14.1% | 13.9% | 11.6% |
| Net Interest & Other Income | (17)  | (15)  | (15)  | (14)  | (12)  |
| Net Income (Adjusted)       | 86    | 99    | 113   | 135   | 155   |
| % Change                    | 12.0% | 14.9% | 13.7% | 19.6% | 14.8% |

## Free Cash Flow Data (Dec)

| (US\$ Millions)                        | 2011A  | 2012A | 2013E | 2014E | 2015E |
|----------------------------------------|--------|-------|-------|-------|-------|
| Net Income from Cont Operations (GAAP) | 76     | 92    | 108   | 131   | 150   |
| Depreciation & Amortization            | 76     | 77    | 88    | 94    | 100   |
| Change in Working Capital              | (21)   | (3)   | (16)  | (21)  | (24)  |
| Deferred Taxation Charge               | NA     | NA    | NA    | NA    | NA    |
| Other Adjustments, Net                 | 0      | 21    | 33    | 34    | 36    |
| Capital Expenditure                    | (95)   | (131) | (137) | (146) | (157) |
| Free Cash Flow                         | 35     | 56    | 76    | 90    | 106   |
| % Change                               | -47.5% | 58.9% | 36.2% | 18.0% | 17.1% |

## Balance Sheet Data (Dec)

| (US\$ Millions)                       | 2011A        | 2012A        | 2013E        | 2014E        | 2015E        |
|---------------------------------------|--------------|--------------|--------------|--------------|--------------|
| Cash & Equivalents                    | 92           | 162          | 220          | 294          | 357          |
| Trade Receivables                     | 147          | 175          | 188          | 200          | 215          |
| Other Current Assets                  | 233          | 220          | 231          | 243          | 258          |
| Property, Plant & Equipment           | 594          | 669          | 724          | 782          | 845          |
| Other Non-Current Assets              | 334          | 338          | 346          | 351          | 362          |
| <b>Total Assets</b>                   | <b>1,399</b> | <b>1,564</b> | <b>1,708</b> | <b>1,871</b> | <b>2,036</b> |
| Short-Term Debt                       | 50           | 33           | 0            | 0            | 0            |
| Other Current Liabilities             | 193          | 229          | 237          | 247          | 258          |
| Long-Term Debt                        | 299          | 379          | 379          | 378          | 353          |
| Other Non-Current Liabilities         | 202          | 195          | 207          | 220          | 234          |
| <b>Total Liabilities</b>              | <b>744</b>   | <b>835</b>   | <b>823</b>   | <b>844</b>   | <b>845</b>   |
| <b>Total Equity</b>                   | <b>655</b>   | <b>729</b>   | <b>885</b>   | <b>1,027</b> | <b>1,191</b> |
| <b>Total Equity &amp; Liabilities</b> | <b>1,399</b> | <b>1,564</b> | <b>1,708</b> | <b>1,871</b> | <b>2,036</b> |

\* For full definitions of iQmethod<sup>SM</sup> measures, see page 25.

## Company Description

West Pharmaceutical Services is a leading manufacturer of components used for injectable drug delivery systems, including rubber stoppers and syringe plungers, and also offers contract manufacturing services to the healthcare and consumer products industry. However, the company is currently augmenting its product portfolio by offering more proprietary products including prefilled syringes, advanced injection systems, and drug administration systems.

## Investment Thesis

We are positive on West as the company is launching several novel drug delivery systems that we believe are likely to see solid adoption as they address key challenges faced by healthcare customers today. Moreover, favorable market trends, including a growing demand for biological drugs and vaccines as well as exposure to top therapeutic areas, should help accelerate the company's sales growth and drive margin expansion over the next few years.

## Stock Data

|                      |         |
|----------------------|---------|
| Average Daily Volume | 234,456 |
|----------------------|---------|

## Quarterly Earnings Estimates

|    | 2012  | 2013  |
|----|-------|-------|
| Q1 | 0.42A | 0.44A |
| Q2 | 0.40A | 0.43A |
| Q3 | 0.26A | 0.36E |
| Q4 | 0.30A | 0.38E |

## Investment thesis

### Initiating with a Buy rating and \$50 PO

West offers components used for injectable drug delivery systems, but is augmenting its portfolio to offer more fully integrated proprietary systems

West Pharmaceutical Services is a leading manufacturer of components used for injectable drug delivery systems, including rubber stoppers and syringe plungers, and it also offers contract manufacturing services to the healthcare and consumer products industry. However, the company is augmenting its product portfolio to offer more complete proprietary drug delivery systems that address key challenges faced by biopharmaceutical customers.

For example, standard packaging materials (eg, glass and plastic) used for prefilled syringes and vials are prone to breakage, prompting customers to conduct product recalls. Moreover, drug waste is routine, as vials need to be overfilled by up to 25% to ensure full dose delivery to a patient, and drug potency may be diminished due to interaction with the packaging. West's solution to these issues is Crystal Zenith (CZ), a proprietary resin with many favorable attributes over typical glass packaging with high breakage resistance and reduced package-drug interaction.

We are positive on customer adoption of CZ due to recent developments

We are positive on customer adoption of CZ due to recent developments. In June 2012, Amgen announced that it was evaluating CZ, and management noted that several undisclosed customers are assessing this resin. We see an inflection point for CZ over the next two to three years and forecast that this resin will constitute 10% of total sales by 2018 versus 1% today, representing a five-year sales CAGR of 70% (2013-2018E).

In addition, customers are seeking systems for administering greater volumes of highly viscous biological drugs, and as a result, West recently introduced SmartDose, an electronic patch injector to subcutaneously deliver such drugs. Initial human studies for SmartDose have been positive, and West recently signed an exclusive license with a customer for the use of this device in one undisclosed therapeutic area.

We are also upbeat on West's traditional drug packaging business

We are also upbeat on West's traditional drug packaging business, which today represents about 73% and 97% of the company's total sales and operating profit, respectively. We believe that the company is well positioned to maintain its top position in this \$1.5 billion market thanks to high barriers to entry, particularly the inclusion of its drug packaging products into confidential regulatory filings for approved drugs that make switching to another vendor cumbersome and costly. In addition, West is gaining traction in marketing novel value-add services, such as special coatings and washes that improve drug stability and potency.

The outlook for West's business is solid given its strong presence in the classic drug packaging business and the several proprietary drug administration systems being launched. As a result, we model an 8% five-year sales CAGR (2013-2018E) for West, an acceleration over the 4% sales CAGR between 2007 and 2012. Due to greater contributions from premium priced proprietary products, manufacturing efficiencies, and favorable mix, we see total company margins expanding by about 400bp over the next five years to 15.8% by 2018, resulting in 16% EPS growth during this period.

Overall, we are bullish on West's portfolio transformation strategy, competitive position, and prudent capital deployment

Overall, we are bullish on West's portfolio transformation strategy, competitive position, and prudent capital deployment. We rate WST shares Buy with a \$50 PO based on approximately 13x our 2014 EBITDA estimate.

West is a global leader of the \$1.5 billion drug packaging market

West is in the process of enhancing its product portfolio

Many of West's proprietary products are based on Crystal Zenith (CZ), a resin with many favorable attributes, such as high breakage resistance

## Key positives

### Leader in drug packaging with various barriers to entry

West is a global leader of the \$1.5 billion drug packaging market, consisting of various traditional components for injectable drug delivery systems, including stoppers and syringe plungers. West is the market leader in this space with about 70% market share, and we think that the company is likely to hold this position due to several barriers to entry, particularly the inclusion of its drug packaging products into confidential regulatory filings for approved drugs that makes switching to another vendor cumbersome and costly. Moreover, more than 50% of West's customer contracts are long-term, ranging from three to seven years. Finally, the company's broad manufacturing capabilities and industry expertise help its customers minimize regulatory and supply chain risks.

### Novel products likely to drive sales growth and profitability

Today, West derives 73% of its total sales and 97% of its operating income from the sale of packaging products. However, West is in the process of enhancing its product portfolio by offering fully integrated novel drug delivery systems, as opposed to just selling components, to augment its sales growth and profitability potential. The new proprietary products include auto-injectors, safety systems for preventing accidental needle-sticks, and systems for mixing and transferring drugs. In addition, West is developing SmartDose, an electronic patch injector for the subcutaneous delivery of high volume biologic drugs. Initial human studies for SmartDose have been positive and West recently signed an exclusive license with a customer for the use of the device in one undisclosed therapeutic area.

We estimate that this portfolio transformation will help the company expand its market opportunity by at least another \$1.5 billion and participate in areas growing in the low-to-mid double-digits. Over the next five years, we think that sales and operating income contribution from non-packaging products will expand to 32% (from 27%) and 21% (from 9%), respectively, which is likely to significantly expand the company's profitability, in our view.

### Positive on Crystal Zenith (CZ) potential

Many of West's proprietary products are based on Crystal Zenith (CZ), a resin with many favorable attributes, such as high breakage resistance, minimal package-drug interaction, and better compatibility with biologic drugs. We are positive on the CZ adoption potential as it can help drug manufacturers overcome various issues associated with standard packaging materials (eg, glass) used for prefilled syringes and vials, including product recalls due to breakage of glass, the need to overfill drug vials by up to 25% to ensure full dose delivery to a patient, and drug exposure to contaminants (eg, silicone oil and tungsten).

Although customers' CZ evaluation studies may take some time, we think that an inflection point is likely over the next two to three years given recent events, including Amgen's June 2012 decision to evaluate the use of Crystal Zenith for drug containment. Moreover, West notes that four customers are conducting formal stability studies for CZ and more than 100 products have completed pre-stability testing. As a result, we see CZ sales contribution expanding from only about 1% today to about 10% by 2018.

### Favorable trends towards injection devices

Although injectable drugs only make up about 15%-20% of the current global pharmaceuticals market, this percentage is likely to increase due to a higher use of injection devices to treat top therapeutic categories, such as cancer, diabetes,

and autoimmune diseases (eg, rheumatoid arthritis). In addition, the industry has benefited from the adoption of self-injection devices, such as auto-injector and pen injectors, due to higher patient compliance to treatment and healthcare savings resulting from lower costly hospital visits. Moreover, advances in biotechnology are likely to increase industry demand for injectable devices given that several molecules are viscous and require high-volume delivery. As a result, we think that these trends will translate into favorable tailwinds for West's traditional packaging business as well as its proprietary drug delivery systems.

West's long-term financial goals suggest significant margin expansion

### Optimistic about long-term financial goals

During West's 3Q13 earnings call, we expect management to update the company's long-term financial goals. West's current 2017 revenue target range is \$1.8-\$2.0 billion, which implies a 7%-10% sales CAGR from the midpoint of 2013 revenue guidance. The company also sees the potential to expand operating margins into the 18%-19% range by 2017 from our 12% estimate for 2013. This suggests significant margin expansion driven by growth in the company's proprietary systems, efficiency improvements in the packaging business, and stronger mix of healthcare-consumable contract manufacturing.

In August 2013, West announced a two-for-one stock split

### Recent stock split improves liquidity

In August 2013, West announced that its board of directors approved a two-for-one split of its common stock, with share distribution on September 26. This marks the second split for the company in the last 10 years and doubled the total shares outstanding from 35 million to 70 million.

### Prudent capital deployment

The company primarily pursues tuck-in acquisitions to further expand its novel product offerings. In 2010, the company acquired La Model Ltd, the developer of the SmartDose injector system, for \$2.5 million plus considerations. The company also pays a dividend that equates to about a 1% yield.

Although we are positive about West's proprietary products, evaluation periods may take longer than expected

### Risk analysis

#### Adoption of new products could take longer than expected

Although we are positive about West's proprietary products, evaluation periods may take longer than expected, which could slow sales growth and margin expansion. New products within the injectables industry may take at least three years to gain traction due to the requirement for drug packaging stability studies that take at least two years to complete as well as the risk-averse nature of the biopharmaceutical industry.

#### Higher raw materials costs may impact profitability

West relies on three key raw materials: rubber, aluminum, and plastic. It has been able to pass along most raw material price increases to its customers as the result of "look back" features in its supply contracts.

#### Unfavorable economic conditions may impact results

Uncertainty in the global economy may adversely operating results from lower sales due to customers decreasing inventories and order lead times, as well as the inability to hedge currency and raw material costs sufficiently. In addition, a decline in global markets may hurt the company's pension asset values, leading to higher pension costs.

No one customer represents more than 10% of West's total revenues

## Disruptions in the supply of key raw materials

The company's supply chain management strategy involves purchasing from integrated suppliers, which caused it to rely on fewer raw material suppliers in recent years. As a result, the company's risk of supply line interruption is higher and could hamper production. However, the company regularly evaluates its supply chain to assess potential disruptions.

## Customer concentration may impact results

Although no one customer represents more than 10% of West's total revenues, its 10 largest customers accounted for about 40% of its net sales in 2012. In some cases, West also competes with its customers, particularly in marketing more fully-integrated drug delivery systems, which could reduce supply contracts.

## BofAML and consensus estimates

Between 2012 and 2015, we project revenue growth at a 7% CAGR with non-GAAP EPS growing at a 16% CAGR driven primarily by greater contribution from Delivery Systems, particularly CZ based healthcare products, improved mix from contract manufacturing, and efficiency improvements in traditional packaging.

Table 1: Estimates for WST

| FY Dec                        | 2012A  | 1Q13A  | 2Q13A  | 3Q13E  | 4Q13E  | 2013E  | 2014E  | 2015E  | '12-'15 CAGR |
|-------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------------|
| BofAML sales est (in \$mn)    | 1,266  | 339    | 345    | 333    | 354    | 1,371  | 1,457  | 1,562  | 7%           |
| Consensus sales est (in \$mn) | 1,266  | 339    | 345    | 333    | 350    | 1,366  | 1,455  | NA     |              |
| BofAML adjusted EPS est       | \$1.38 | \$0.44 | \$0.43 | \$0.34 | \$0.40 | \$1.60 | \$1.87 | \$2.15 | 16%          |
| BEST adjusted EPS est         | \$1.38 | \$0.44 | \$0.43 | \$0.36 | \$0.38 | \$1.60 | \$1.83 | NA     |              |

Source: BofA Merrill Lynch Global Research estimates, Bloomberg and company reports

On an EV/EBITDA basis, WST shares have ranged from a high of 14x to a low of 6x, with an average multiple of about 10x since the beginning of 2007

## Valuation

### \$50 based on 12x our 2014 EBITDA and backed by DCF

WST shares are up 46% year-to-date (YTD), with a 52-week trading range of \$26 to \$41. To compare, the S&P 500 is up about 18% YTD.

### EV/EBITDA trends

On an EV/EBITDA basis, WST shares are currently trading at about 11x and 9x our 2014 and 2015 estimates, respectively. On an EV/EBITDA (TTM) basis, WST shares have ranged from a high of 14x to a low of 6x, with an average multiple of about 10x since the beginning of 2007. WST shares are currently trading at about a 13% premium to its peers, consisting of a mix of life sciences, medical device, and packaging companies (Table 2), on FY14 estimates.

### P/E trends

WST shares are trading at about 21x and 18x our 2014 and 2015 EPS estimates, respectively. On a two-year forward P/E basis, WST shares have ranged from a high of 23x to a low of 12x, with an average multiple of about 17x since the beginning of 2007. WST shares are trading at about a 29% premium to its peers on FY14 estimates. However, the company is trading at only a 6% premium to some of its closest peers, including Aptar and Terumo (Table 2).



Table 2: West's comparisons

| Company              | Ticker | Price<br>10/7/2013 | 52 week<br>High | 52 week<br>Low | Market Cap<br>(in \$mn) | Div<br>Yield | P/E   |       |       | EV/EBITDA |       |       |
|----------------------|--------|--------------------|-----------------|----------------|-------------------------|--------------|-------|-------|-------|-----------|-------|-------|
|                      |        |                    |                 |                |                         |              | CY13E | CY14E | CY15E | CY13E     | CY14E | CY15E |
| APTARGROUP INC       | ATR    | \$60.26            | 61.66           | 45.19          | 3,994 M                 | 1.7%         | 21.8  | 19.4  | 17.3  | 9.3       | 8.7   | 8.1   |
| BAXTER INTERNATIONAL | BAX    | \$64.84            | 74.60           | 60.24          | 35,194 M                | 3.0%         | 13.9  | 12.6  | 11.7  | 9.1       | 8.1   | 7.6   |
| BECTON DICKINSON     | BDX    | \$99.43            | 104.98          | 74.18          | 19,311 M                | 2.0%         | 17.0  | 15.2  | 14.2  | 9.9       | 8.8   | 8.6   |
| CAREFUSION CORP      | CFN    | \$37.01            | 39.38           | 26.00          | 7,934 M                 | NM           | 17.5  | 14.5  | 13.4  | 9.0       | 8.1   | 7.4   |
| CR BARD INC          | BCR    | \$114.54           | 121.16          | 93.79          | 9,066 M                 | 0.7%         | 19.3  | 15.1  | 13.5  | 11.4      | 9.8   | 9.2   |
| COVIDIEN PLC         | COV    | \$60.55            | 64.10           | 48.54          | 27,853 M                | 2.1%         | 15.6  | 14.8  | 13.2  | 10.4      | 10.3  | 9.6   |
| DAETWYLER HOLDING    | DAE SW | \$109.00           | 115.80          | 76.35          | 1,853 M                 | NM           | 14.5  | 12.0  | 10.9  | 8.9       | 7.9   | 7.3   |
| GERRESHEIMER AG      | GXI GR | \$44.82            | 47.99           | 36.40          | 1,407 M                 | NM           | 16.4  | 13.6  | 11.7  | 7.9       | 7.0   | 6.4   |
| PALL CORP            | PLL    | \$77.14            | 78.13           | 58.18          | 8,627 M                 | 1.4%         | 24.8  | 21.9  | 19.7  | 13.9      | 13.2  | 12.3  |
| SIGMA-ALDRICH        | SIAL   | \$84.53            | 88.55           | 68.22          | 10,164 M                | 1.0%         | 20.7  | 19.4  | 18.0  | 12.2      | 11.5  | 10.8  |
| TELEFLEX INC         | TFX    | \$82.35            | 87.46           | 65.07          | 3,387 M                 | 1.7%         | 17.1  | 14.9  | 13.4  | 10.1      | 8.9   | 8.2   |
| TERUMO CORP          | TRUMF  | \$49.45            | 54.50           | 39.49          | 9,389 M                 | 1.2%         | 17.7  | 19.9  | 18.0  | 9.9       | 8.9   | 8.2   |
| THERMO FISHER        | TMO    | \$91.72            | 94.74           | 57.21          | 33,067 M                | 0.7%         | 17.1  | 16.0  | 14.4  | 11.6      | 10.9  | 10.1  |
| Mean                 |        |                    |                 |                |                         |              | 18.0  | 16.1  | 14.6  | 10.3      | 9.6   | 8.8   |
| Median               |        |                    |                 |                |                         |              | 17.1  | 15.1  | 13.5  | 9.9       | 8.9   | 8.2   |
| WEST PHARMACEUTICAL  | WST    | \$39.88            | 41.54           | 25.25          | 2,783 M                 | 1.0%         | 24.9  | 20.8  | 18.1  | 11.9      | 10.6  | 9.4   |

Source: BoFA Merrill Lynch Global Research estimates and Bloomberg

Continued execution in West's packaging business and adoption of new delivery system products is likely to lead to multiple expansion, in our view

Our bear/base/bull case assume 4%/7%/10% sales growth, respectively, for 2014

### Price objective

Continued execution in its packaging business and adoption of new delivery system products is likely to accelerate organic sales growth, which should lead to multiple expansion as margin expansion is realized beginning as early as 2H14, in our view. We arrive at a \$50 PO based on 13x our 2014 EBITDA estimate. Our base case DCF analysis implies a \$49 valuation, assuming about a 8.5% WACC and 2.5% terminal growth rate.

### Sensitivity analysis

Our base case assumes about 7% revenue growth for 2014. By segment, our base case assumes 7.5% organic growth in the Packaging Systems business, which includes modest benefit from pricing (+1%), favorable mix as more customers opt for West's value-add services, and ongoing healthy volumes. We also model 5.0% organic growth in Delivery Systems, which assumes a modest ramp in CZ demand in 2H14. Our operating margin assumption is 13.0%, up 120bp y/y as the company starts to realize better mix in Delivery Systems.

Our bull case assumes about 10% sales growth, which includes 9.5% organic growth in Packaging System due to higher pricing power due to favorable mix and volumes. We also assume 10% growth in Delivery Systems, which assumes healthy contract manufacturing demand and stronger than anticipated demand for CZ beginning in 2H14. As a result of this improved mix, we see margins expanding by 160bp y/y.

Our bear case assumes 4% growth, with about 5% organic growth in Packaging Systems. We also assume 3% growth in Delivery Systems, which assumes delays in customer adoption of CZ as well as softer contract manufacturing volumes. As a result, we only see margins expanding by 70bp y/y (Table 3).

**Table 3: West scenario analysis (2014 projections)**

|                               | <b>Bear case</b> | <b>Base case</b> | <b>Bull case</b> |
|-------------------------------|------------------|------------------|------------------|
| Packaging Systems Sales       | 1054             | 1079             | 1099             |
| Delivery Systems Sales        | 378              | 385              | 403              |
| Eliminations                  | -1               | -1               | -1               |
| Net revenues                  | 1,430            | 1,463            | 1,501            |
| COGS                          | 970              | 986              | 1,008            |
| R&D                           | 39               | 38               | 39               |
| SG&A                          | 243              | 248              | 253              |
| Operating profit              | 178              | 190              | 201              |
| D&A                           | 92               | 94               | 96               |
| EBITDA                        | 270              | 284              | 297              |
| <b>Year over Year Growth:</b> |                  |                  |                  |
| Packaging Systems Sales       | 5%               | 8%               | 10%              |
| Delivery Systems Sales        | 3%               | 5%               | 10%              |
| Net revenues                  | 4%               | 7%               | 10%              |
| <b>Assumptions:</b>           |                  |                  |                  |
| Gross margin (%)              | 32.2%            | 32.6%            | 32.9%            |
| R&D                           | 2.7%             | 2.6%             | 2.6%             |
| SG&A (%)                      | 17.0%            | 17.0%            | 16.9%            |
| Packaging Systems EBIT (%)    | 22.1%            | 22.3%            | 22.5%            |
| Delivery Systems EBIT (%)     | 3.5%             | 4.5%             | 5.6%             |
| EBIT margin (%)               | 12.5%            | 13.0%            | 13.4%            |
| <b>Implied valuation:</b>     |                  |                  |                  |
| EV/EBITDA multiple            | 11               | 13               | 15               |
| Valuation                     | 38               | 50               | 60               |

Source: BofA Merrill Lynch Global Research estimates

Total revenues have grown at a 4% CAGR over the last five years (2007-12), but we project an acceleration to 8% over the next five years (2013-18E).

## Financials

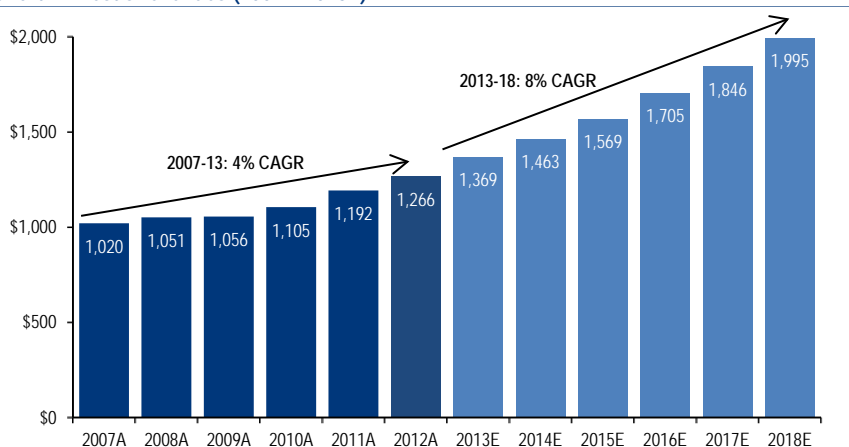
### Revenues

Total revenues have grown from \$1,051mn in 2008 to \$1,266mn in 2012, representing a 4% CAGR (Chart 1). For 2013, West projects total sales in the range of \$1,350mn to \$1,390mn (+7%-10% y/y). By segment, West guides Packaging System sales to \$990mn to \$1,020mn, with Delivery Systems sales in the range of \$360mn to \$390mn.

For 2013, we see total revenues of \$1,369mn (+8.1% y/y; 7.8% organic, +0.3% FX), with \$1,004mn from Packaging and \$367mn from Delivery Systems. For 2018, we forecast total revenues of \$1,996mn, representing an 8% five-year CAGR driven by adoption of CZ-based healthcare products, SmartDose, and value-added services (Chart 1).



Chart 1: West's revenues (2007A-2018E)



Source: Company reports and BofA Merrill Lynch Global Research estimates

## Margins and expenses

### Gross margins

By 2018, we see gross margins expanding by 350bp to 34.1% due primarily to higher margins in Delivery Systems as adoption of proprietary systems increases

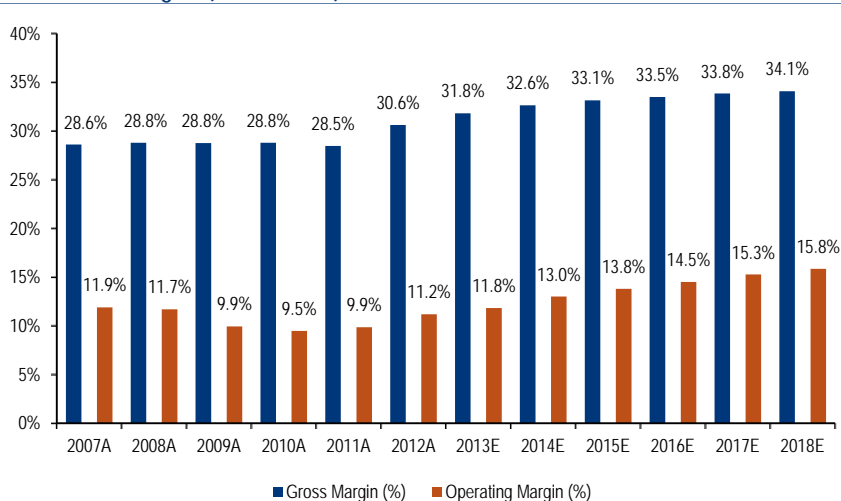
Since 2007, gross margins for West have increased by 200bp to 30.6% in 2012 due to better packaging product mix, lower raw material cost, and higher contribution from proprietary products. For 2013, West expects gross margins to be in the range of 31.5%-32.0%, with Packaging Systems in the 35.5%-36.0% range and Delivery Systems in the 20.3%-21.3% range. We project total gross margins of 31.8%, assuming 35.8% in Packaging and 20.7% in Delivery Systems. By 2018, we see gross margins expanding by 350bp to 34.1% due primarily to higher margins in Delivery Systems as adoption of proprietary systems increases.

### Operating margins

Over the next five years we expect operating margins to expand by 460bp to 15.8%

Since 2007, adjusted operating margins for West have contracted by 70bp to 11.2%. By 2018, we expect margins to expand by 460bp to 15.8%, with 23.5% and 13% operating margins from Packaging and Delivery Systems, respectively, and a 4.2% drag from other corporate expenses (Chart 2).

Chart 2: West margins (2007A-2018E)



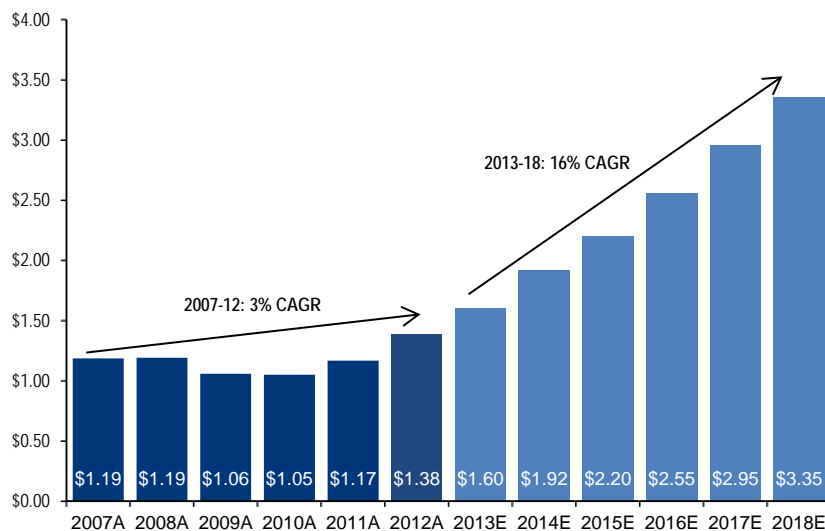
Source: Company reports and BofA Merrill Lynch Global Research estimates

By 2018, we forecast EPS of \$3.35, representing a 16% five-year CAGR

## EPS

Non-GAAP EPS grew from \$1.19 in 2007 to \$1.38 in 2012, representing a 3% CAGR. Accounting for the recent 2 for 1 split, West guides 2013 EPS to a range of \$1.55 to \$1.63. For 2013, we project EPS of \$1.60 (+16% y/y). By 2018, we forecast EPS of \$3.35, representing a 16% CAGR ('13-'18)(Chart 3).

Chart 3: West adjusted EPS (2007A-2018E)



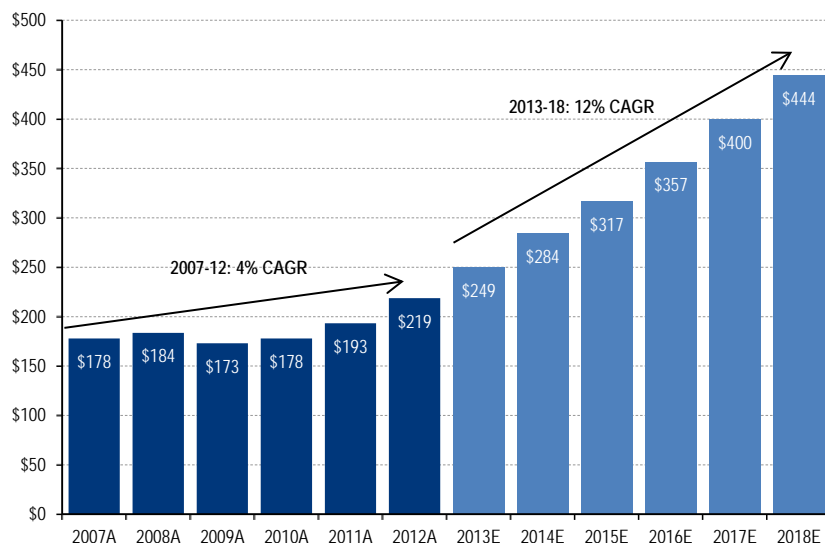
Source: Company reports and BofA Merrill Lynch Global Research estimates

Over the next five years we project an EBITDA CAGR of 12%

## EBITDA

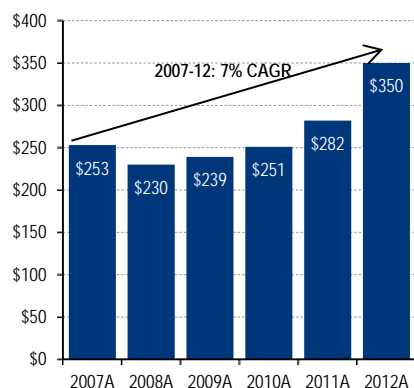
Between 2008 and 2012, adjusted EBITDA for West expanded at a 4% CAGR, from about \$178mn to \$219mn. For 2013, we project adjusted EBITDA of approximately \$249mn (+14% y/y). By 2018, we project adjusted EBITDA of about \$444mn, implying a 12% five-year CAGR (Chart 4).

Chart 4: West EBITDA (2007A-2018E)



Source: BofA Merrill Lynch Global Research estimates, company reports

Chart 5: West backlog (2007A-2012A)



Source: Company reports and BofA Merrill Lynch Global Research

## Backlog

West's backlog consists of firm orders placed by customers for manufacture over a period of time according to their schedule or upon confirmation by the customer. Since 2007, West's backlog has expanded at a 7% CAGR from \$253mn to \$350mn at the end of 2012. The growth in backlog is in part due to a lengthening in the average lead time for sales orders, particularly when compared during the recent economic downturn, as well as increased customer demand for higher value products. As of June 30, 2013, West's sales order backlog was \$356mn (+14% y/y).

## Balance sheet and cash flow

### Cash and cash equivalents

As of 2Q13, WST had \$198mn in cash and cash equivalents, of which about 75% was held outside the US.

### Debt

As of 2Q13, WST had \$394mn in total debt. The company has a standing credit facility of \$300mn, with an additional \$50mn contingent on prior approval, which expires in April 2017. Additionally WST has a revolving credit facility of \$50mn, having borrowed \$42.8mn to finance the construction and acquisition of a new corporate office and research building.

### Operating and free cash flow

For 2013, we forecast \$213mn in operating cash flow, with \$76mn (36% y/y) in free cash flow after \$137mn in capital expenditures. Of note, management estimates capital spending to be between \$125mn and \$140mn in 2013. By 2018, we forecast FCF of \$170mn, representing a 17% five-year CAGR.

### Capital deployment

WST's capital deployment strategy has consisted mostly of small, tuck-in acquisitions, dividend payments, and modest share repurchase programs. The current dividend yield is about 1%.

West products and operations help its customers minimize regulatory, manufacturing, and supply chain risk

Today, West remains a leader in drug delivery systems

West continues to expand its geographic footprint through targeted manufacturing expansion

West operates in two business segments: pharmaceutical packaging systems (PPS) and pharmaceutical delivery systems (PDS)

## Company overview

Headquartered in Exton, PA, West Pharmaceutical Services is a global leader in the development and manufacture of products that help ensure the safe packaging and delivery of injectable drug products. Due to its deep understanding of the science behind the compatibility between a drug and its packaging and administration systems, West helps its customers minimize regulatory, manufacturing, and supply chain risk. Although the majority of the company's sales today stem from the sale of traditional components for injectable drug delivery systems, such as stoppers and syringe plungers, the company is transforming its portfolio to offer more complete administration systems, including injectable container solutions that improve drug stability and reduce the need for vial overfill, safety and administration systems, and advanced injection systems.

## Company history

West Pharmaceutical Services was founded in 1923 by Herman West, with an initial focus in providing components for packaging injectable drugs. For example, in the 1930s the company developed the idea of using vial closures consisting of a rubber septum fixed in place by a metal seal to allow multiple punctures using a syringe needle without harming the integrity of a drug. Consequently this product innovation allowed for the widespread distribution of important drugs such as penicillin and insulin.

Today, West remains a leader in drug delivery systems thanks to its global operations, clean room manufacturing and processing, as well as automated assembly. However, the company is also expanding its portfolio through acquisitions, partnerships and organic innovation. In May 2005, West acquired The Tech Group to provide contract manufacturing solutions for pharmaceutical delivery systems, medical devices and personal care and consumer products. In August 2005 the company acquired Medimop Medical Projects Ltd. to expand its system offerings for the transfer, mixing, and administration of injectable pharmaceuticals.

West also has a long-standing relationship and 25% ownership in Japan-based Daikyo Seiko, which gives the company exclusive access to Crystal Zenith (CZ) polymer that will help it offer new, proprietary products that we think will be a key driver for future growth (see more details in Delivery Systems section).

West continues to expand its geographic footprint through targeted manufacturing expansion. In late 2012, the company completed its compression molding facility in China and validation in early 2013. The company also started construction of its first manufacturing facility in India in August 2012, which it expects to be on-line in with metal seal production in early 2014 and compression molding capabilities in the first half of 2015.

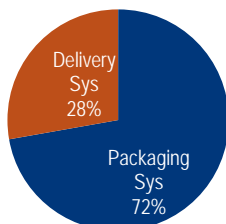
## Two operating segments

West operates in two business segments: pharmaceutical packaging systems (PPS) and pharmaceutical delivery systems (PDS). Through its PPS segment, the company offers more traditional primary packaging components and systems for injectable drug delivery including stoppers and seals for vials as well as components used in syringe, intravenous, and blood collection systems. In the PDS segment, West offers safety and administration systems, multi-component systems for drug administration, and various contract-manufacturing services for the healthcare and consumer-products markets.

## Revenue breakdown

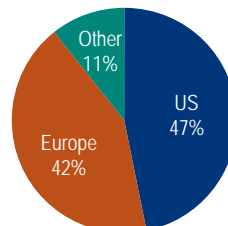
In 2012, West recorded total net revenues of \$1,266 million (+6.2% y/y; +10.1% organic), with approximately 72% of sales from the company's Packaging Systems segment and the remaining 28% of sales from Delivery Systems. In terms of revenue exposure by geography, about 47% of revenues were from the US, about 42% from Europe, and the remaining 11% from the rest of the world.

Chart 6: West product mix



Source: Company reports and BofA Merrill Lynch Global Research

Chart 7: West geographic mix



Source: Company reports and BofA Merrill Lynch Global Research

## Management

### Donald E. Morel, Jr., Ph.D. — chairman and CEO

Dr. Donald Morel has been West's chairman of the board since March 2003 and chief executive officer since April 2002. Previously, Dr. Morel was West's president from April 2002 to June 2006 and COO from May 2001 to April 2002. He was also division president of the company's drug delivery systems segment from October 1999 to May 2001, and prior thereto, group president.

### William J. Federici — vice president and CFO

Mr. William Federici joined West as its CFO in August 2003. Previously, he was national industry director for pharmaceuticals of KPMG LLP from June 2002 until August 2003. Prior to that, he was an audit partner with Arthur Andersen, LLP.

### Jeffrey C. Hunt — president, Packaging Systems

Mr. Jeffrey Hunt has been president of West's Pharmaceutical Packaging Systems segment since January 3, 2011. Previously, he served as vice president, strategic planning and business development from July 2010 to January 2011. From August 2006 to July 2009, he served as president of the patient care and safety products global business unit for Covidien. From August 2004 to August 2006, he was vice president and general manager of the sharp safety division of Tyco Healthcare/Kendall, vice president of marketing from June 2003 to August 2004 and marketing director from March 1998 to June 2003.

### John Paproski — president, Delivery Systems

Mr. John Paproski has been president of West's Pharmaceutical Delivery Systems segment since December 2009. Previously, he was vice president of innovation, from January 2005 to December 2009 and vice president, global product development from August 1996 to January 2005. He has held numerous other operations and engineering positions within West, including vice president of Rubber Operations from August 1993 to January 2005 and director of manufacturing engineering from 1991 to 1993.

We estimate that the market opportunity for the company is about \$3 billion and growing in the mid-to-high single digits per annum

West's customers include nearly every major pharmaceutical, biotechnology, generic, and medical device company in the world

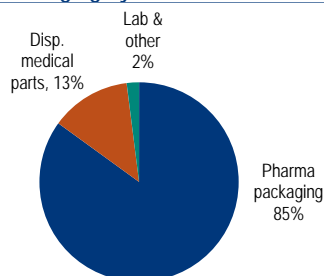
## Business description

West's operations consist of two segments: Packaging Systems (72% of net revenues) and Delivery Systems (28% of net revenues). In aggregate, we estimate that the market opportunity for the company is about \$3 billion and growing in the mid-to-high single digits per annum, with about \$1.5 billion from packaging systems and \$1.5 billion from proprietary delivery systems.

West's customers include nearly every major pharmaceutical, biotechnology, generic, and medical device company in the world. West's products are used in 19 of the top 20 selling injectable biotechnology drugs and are included in the regulatory filings of several new, emerging biologic molecules. In 2012, the company's 10 largest customers accounted for about 40% of its net sales, but no one customer accounted for more than 10% of sales.

West's principal categories include the delivery of insulin, cancer therapies, biologics, and generics. The company's products and services are offered primarily through its own sales force and distribution network, with limited use of contract sales agents and distributors. West has a strong global presence with 34 sales locations and 32 manufacturing facilities across the world. The company's operations feature clean-room manufacturing, robotics, and automated assembly. As of year-end 2012, West employed about 6,700 individuals.

Chart 8: Packaging Systems revenue mix



Source: Company reports and BofA Merrill Lynch Global Research estimates

### Packaging Systems (72% of total sales)

Through its Packaging Systems segment, West develops, manufactures, and markets primary packaging components and systems for injectable drug delivery. Products offered in this business unit include stoppers and seals for vials, closures and other parts used in syringe, intravenous and blood collection systems, and prefillable syringe components. In 2012, West's Packaging Systems segment generated about \$915 million (+7% y/y; +11% organic) in revenues. We estimate that about 85% of segment sales stemmed from pharmaceutical packaging, 13% from disposable medical components, and the remaining 2% from laboratory and other services (Chart 8).

### Segment performance trends

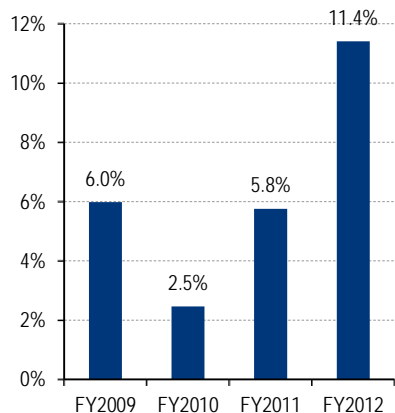
Since 2009, West's Packaging Systems revenues have grown at about a 6% CAGR (2009-2012). During this period, the organic growth average was also approximately 6%, with a low of 2.5% in 2010 in part due to large inventory adjustments made by West's customers starting during the economic downturn in 2008 and consisting of smaller order quantities, reduced lead times, and quarter- and year end delivery date changes. As customers have moved beyond these inventory changes, growth has improved and in 2012 the company recorded a high of 11% organic sales growth (Chart 9).

### Gross margins & profitability for Packaging Systems continues to improve

Since 2009, gross margins have increased by 250bp to 34.8% in 2012, while operating margins have grown by 270bp to 20.5% primarily due to healthy pricing, higher volumes, and favorable mix (Chart 10, Chart 11).

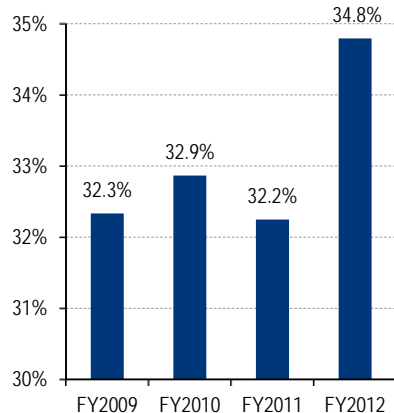


**Chart 9: Packaging Sys Org. Sales Growth**



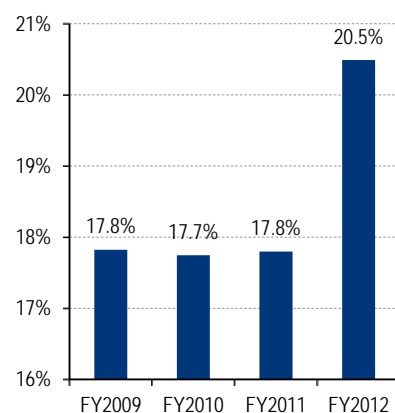
Source: BofA Merrill Lynch Global Research, company report

**Chart 10: Packaging Sys Gross Margin**



Source: BofA Merrill Lynch Global Research, company report

**Chart 11: Packaging Sys Operating Margin**



Source: BofA Merrill Lynch Global Research, company report

**Exhibit 1: West's vials, rubber stoppers, and seals**



Source: Image provided by West Pharmaceutical Services, Inc. 2013

## Pharmaceutical packaging (~85% of total segment sales)

Through its pharmaceutical packaging business, West offers classic rubber (elastomeric), plastic, and metal components used injectable drug delivery systems (Table 4; Exhibit 1). Products include pharmaceutical containers as well as rubber stoppers and discs that serve as primary closures to maintain the integrity of a drug. West also markets solutions for prefillable syringes, such as rubber plungers, needle shields, and tip caps that help preserve the quality of the packaged drug product. In addition, West markets secondary closures for pharmaceutical vials called Flip-Off seals made of an aluminum seal and a removable plastic button to allow needle access to the contents within a drug vial.

**Table 4: Pharmaceutical Packaging products**

| Product                            | Description                                                                                                                     |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Rubber stoppers and discs          | Primary closures for pharmaceutical vials to help maintain the integrity of a drug                                              |
| Vials                              | Plastic or glass containers to ensure that a wide variety of drug application needs are met                                     |
| Solutions for prefillable syringes | Rubber plungers, needle shields, and tip caps that are designed to maintain the quality and safety of the packaged drug product |
| Secondary closures (Flip-Off)      | Aluminum shells and plastic buttons to allow needle access to the contents of a drug vial                                       |

Source: Company reports and BofA Merrill Lynch Global Research

West offers enhanced processing services to improve the performance of traditional components

## Enhanced processing

West also markets value-add processing services for the majority of the components that it sells that include advanced barrier films and coatings to improve the performance of the components (Table 5: Enhanced processing services). For example, the company offers its FluroTec barrier film, a patented molding process applied to elastomeric stoppers and plungers to prevent cross-contamination between the rubber components and drug agent. Of note, products sold with coating technologies or post-manufacturing processes can generate gross margins of over 50% versus approximately 25% for standard packages.

Table 5: Enhanced processing services

| Service            | Description                                                                                                                                                                             |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FluroTec           | A patented molding process to lower the risk of product loss by contamination and protect the shelf life of a packaged drug                                                             |
| Envision           | Components that are inspected using automated vision inspection systems to ensure that components meets quality specifications for visible and subvisible particulate and contamination |
| Post-manufacturing | Westar RS (ready-to-sterilize) and Westar RU (ready-to-use) are fully validated procedures for washing and siliconizing components to remove biological materials and endotoxins        |
| NovaPure           | Serum and lyophilization stoppers and syringe plungers that incorporate FluroTec, validated wash and sterilization processes, vision verification, and lot-to-lot extractable profile   |
| B2-Coating         | A patented process for applying a coating to the surface of stoppers and plungers that eliminates the need for traditional silicone application                                         |

Source: Company reports and BofA Merrill Lynch Global Research

To complement its enhanced processing services, the company offers contract analytical laboratory services

### Disposable med. components (~13% of total segment sales)

West markets disposable medical components, including rubber parts for blood collection, infusion, and intravenous (iv) systems, such as flashback bulbs and sleeve stoppers. The company also offers dropper bulbs used in diagnostic products and dispensing systems in various applications, including eye, ear, and nasal drops.

### Lab services and other (~2% of total segment sales)

To complement its enhanced processing services, the company offers contract analytical laboratory services for testing and evaluating primary drug-packaging parts and their interaction with particular drug formulations. Lab services include drug product method development, validation, release, stability, administration systems, devices and packaging testing. The company's specific established test methods are filed in a Drug Master File with the FDA.

We estimate that the overall Pharmaceutical Systems addressable market is approximately \$1.5 to \$1.7 billion in size and growing in the mid-single digits

### Competitive landscape

We estimate that the overall Pharmaceutical Systems addressable market is approximately \$1.5 to \$1.7 billion in size and growing in the mid-single digits. By product type, we estimate that components used in the biotechnology market are growing in the double digits (10%-15%), while standard packaging products (eg, components for traditional antibiotics and vaccines) are growing in the low-single digits (2%-3%), and disposable components are flattish (0%-1%). In terms of market share, we estimate that West is the leader in the overall space with about 70% share, followed by Datwyler (formerly Helvoet) with about 18%-20% share, and Aptar (formerly Stelmi) with an estimated 5%-7% share.

West is likely to maintain its dominant market due to various barriers to entry, in our view. For example, West's products are integrated into confidential regulatory filings for approved drugs (eg, Drug Master Files (DMFs) in the U.S.) making switching cumbersome and costly since it requires re-filing extensive paperwork with regulatory bodies as well as re-conducting studies to demonstrate the stability of a particular drug with the newly proposed packaging material. Of note, drug stability tests typically cost about \$400-\$500k.

In addition, about half of West's contracts are long-term in nature, lasting three to seven years. West also has a broad manufacturing footprint and vast experience in filling high volume orders that greatly helps ease customers' concerns over potential supply chain disruptions.

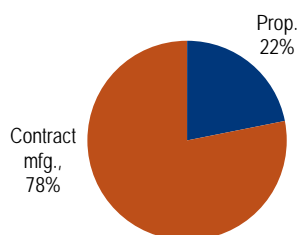
In our view West could grow its PPS sales in the mid-to-high single digit range by adding more features into each component that the company sells

### Growth outlook

Although traditional component volumes are likely to grow in the low to mid-single digits, in our view West could grow its revenues in the mid-to-high single digit range by adding more features into each component that the company sells. As a result, further transitioning customers into value-add services will be critical, but in our opinion, this will be aided by biopharma's greater focus on ensuring drug stability, reducing product waste, and meeting regulatory standards.

In addition, the company's efforts to expand its capacity in China and India will help growth given a greater presence of multinational and generic companies. However, the largest growth opportunity for West's sales and margins remains in customers' adoption of its proprietary full systems and Crystal Zenith (CZ) based products, which we discuss in the Delivery Systems section.

Chart 12: Delivery Systems revenue mix



Source: BofA Merrill Lynch Global Research, company report

## Delivery Systems (~28% of total sales)

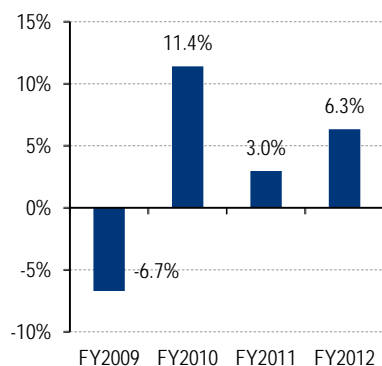
Through its Delivery Systems segment, West develops, manufactures, and markets complete proprietary systems, including safety and administration systems, multi-component systems for drug administration, and contract manufacturing services. In 2012, West's Delivery Systems segment generated about \$352 million (+5% y/y; +6% organic) in revenues. Approximately 78% of segment sales stemmed from contract manufacturing sales, while the remaining 22% of sales were from proprietary products.

### Segment performance trends

Since 2009, West's Delivery Systems revenues have grown at about a 7% CAGR (2008-2012). During this period, the organic growth average was approximately 5%, with a low of -4% in 2009 in part due to reduced selling prices as a result of lower plastic resin prices, lower volumes due to the discontinuation of some contract manufacturing products, and unfavorable mix. As the company has launched more proprietary products, and volumes for contract manufacturing have improved, growth has rebounded. In 2012 the company recorded organic sales growth of 6% (Chart 13).

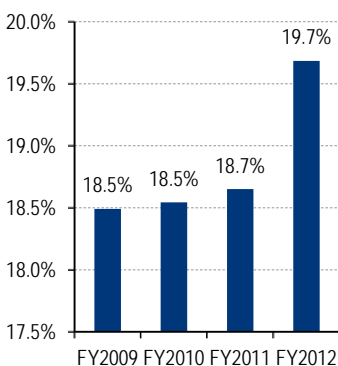
Since 2009, gross margins have increased by 120 bp to 19.7% in 2012, while operating margins have grown by 170 bp to 20.5% (Chart 13) due in part to production efficiencies, favorable pricing for raw materials, and improved mix in contract manufacturing (Chart 14, Chart 15).

Chart 13: Delivery Sys Org. Sales Growth



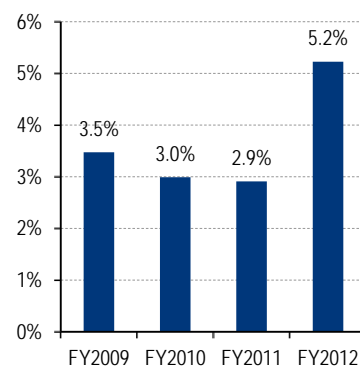
Source: BofA Merrill Lynch Global Research, company reports

Chart 14: Delivery Sys Gross Margin



Source: BofA Merrill Lynch Global Research, company reports

Chart 15: Delivery Sys Operating Margin



Source: BofA Merrill Lynch Global Research, company reports

We expect proprietary systems to be significant growth drivers for West

### Proprietary systems (~22% of total segment sales)

Within its Delivery Systems segment, the company's proprietary systems business develops and commercializes multi-component systems for injectable drug administration and other healthcare applications. Key products in this area include Crystal Zenith (CZ) based healthcare devices, including prefilled syringe systems, vials, and containers as well as proprietary drug administration systems and advanced injection systems.

Although proprietary systems only represent about 6% of total sales, we expect these products to be significant growth drivers for West as the company places a greater emphasis on marketing complete integrated drug administration systems as opposed to just individual components used in the packaging of drugs. Over the next five years we expect proprietary systems to represent 16% of total sales particularly as customers shift from using conventional materials (eg, glass or plastic) as their primary packaging to CZ, a novel plastic resin.

### Crystal Zenith (CZ) healthcare devices

CZ is a proprietary resin that is developed by Daikyo Seiko, a Japanese packaging and components manufacturer, which provides various advantages over traditional packaging material (eg, glass), including high breakage resistance, reduced package-drug interaction, and compatibility with various drugs, including large biologic molecules. CZ is protected by a combination of intellectual property, trade secrets, and manufacturing know-how.

West markets several products formulated from Crystal Zenith (CZ), including prefilled syringe systems, which are ready-to-administer, single-use syringes (Exhibit 2). Prefilled syringes offer various advantages over vial-disposable syringe concepts including ease of use, convenience, higher safety, and a reduction of drug overfill. West also sells CZ vials and other drug containers.

West's therapeutic targets for CZ prefilled syringes include the delivery of biotherapeutic drugs in oncology, vaccines, auto-immune diseases (eg, rheumatoid arthritis, multiple sclerosis), and diabetes (ie, insulin). Today, several manufacturers are evaluating the use of CZ for their biologics. In June 2012, Amgen announced that it was evaluating the use of CZ technologies for drug containment, but details on actual product launch are unknown at this time. In addition, West management notes that four customers are on formal stability studies and that more than 100 products have completed pre-stability testing.

Exhibit 2: West's CZ prefilled syringe



Source: Image provided by West Pharmaceutical Services, Inc. 2013

We estimate the market for CZ healthcare devices to be about \$1bn in size and growing in the low double-digits

In our view the prospects for CZ are positive given that it features several advantages over conventional materials

CZ-based products are already in commercial use in Japan and in Europe, including certain contrast media agents and hyaluronic acid, an injectable drug used for various orthopedic applications. In 2012, Daikyo recorded approximately \$50mn in CZ sales with y/y growth in the mid-high single digit range. In the US, CZ is the principal vial that is used for Zometa, a drug marketed by Novartis to prevent skeletal fractures in patients with cancers as well as for osteoporosis.

#### CZ competitive landscape and growth outlook

We estimate the market for CZ healthcare devices to be approximately \$1 billion in size and growing in the low double-digits per annum. This market estimate is based on the more than 60 injectable drug products that are currently available in a prefilled syringe format today generating biopharmaceutical demand of more than 2 billion units per year. Within in the traditional prefilled syringe market, Becton Dickinson (BDX, \$99.43, A-3-7) is estimated to represent about 80% of the total market, while Gerresheimer represents 10%-15% of the total market. Today West has a negligible position in the complete prefilled syringe market, but it provides about 90% of the plungers used in these systems.

Other companies seek to provide alternatives to standard materials used for prefilled syringes, including Becton Dickinson. However, in our view the prospects for CZ are positive given that it features several advantages over conventional materials. Often, compounds are used during the manufacturing process of classic vials and syringes that could impact a drug. For example, traditional prefilled syringe systems use silicone oil to help the plungers glide easily against the inner walls of glass barrels. However, silicone oil has been demonstrated to interact with biologic drugs, leading to protein aggregation (ie, clumping of proteins) and potential degradation. As a result, manufacturers often overfill syringes to compensate for these potential interactions, leading to higher drug waste and operating costs. CZ syringe systems also use an insert-molded needle to avoid the use of an adhesive, which can often interact with a drug.

In addition, classic prefilled syringe systems routinely use tungsten during the manufacturing process to keep a barrel open while it is being shaped. However, since high temperatures are used during the shaping process, metal particles may be deposited from the tungsten pin into the syringe that could interact with a drug compound and also cause protein aggregation. Other key CZ attributes include enhanced break and scratch resistance and high transparency to facilitate visual inspection. Moreover, CZ products are compatible with drug filling lines found at customers' manufacturing facilities.

Exhibit 3: West's SmartDose system



Source: Image provided by West Pharmaceutical Services, Inc. 2013

#### Administration systems

Within its administration systems business the company develops and markets products focused on the administration, transfer, and mixing of injectable drug products. A promising proprietary system for West that was introduced in 2010 is its SmartDose electronic patch injector that is designed for the subcutaneous delivery of higher volumes of biologic drugs (Exhibit 3). The device incorporates a cartridge that can be made of CZ or glass and can range in size from 3ml to 5ml. SmartDose is placed on a patient's body in a similar fashion to an adhesive bandage. A small needle penetrates the subcutaneous layer of a patient's skin and a drug is pumped into the patient over 30 minutes to several hours.

Details on the therapeutic applications of SmartDose remain limited due to confidentially agreements with customers. However, the ideal use of SmartDose is for the delivery of drug formulations that require large volumes due to viscosity concerns. Development work for SmartDose remains on schedule and West

Initial feedback and clinical studies for SmartDose have been positive

Exhibit 4: West's MixJect transfer device



Source: Image provided by West Pharmaceutical Services, Inc. 2013

completed its first-in-human study using healthcare providers to place the device on subjects during 2Q13. Results and feedback from this study were positive. West also realized an important milestone for SmartDose in 2Q13 as the company received a \$20mn exclusivity fee from a customer for the use of this device in a single therapeutic area that will be recognized over the 13-year life of the agreement.

Thanks in part to its 2005 acquisition of Medimop Medical Projects, West also sells products used to transfer and mix drugs. Various injectable pharmaceuticals, including several biologics, are developed as freeze-dried powders as this approach preserves the potency of a drug while in transit or storage. Therefore, drug reconstitution requires the use of sterile water or other diluents and West's administration systems help facilitate this process, while also reducing the potential for an accidental needle stick to the caregiver or patient.

Reconstitution products include the MixJect transfer device, which is a single unit device for reconstituting a powder drug with a diluent-prefilled syringe (Exhibit 4). Once the drug is reconstituted, it is ready for immediate injection with a pre-attached needle. In addition, the company markets the Mix2Vial needless reconstitution system, which enables vial-to-vial transfer and mixing between two vials for the reconstitution of a drug. Once finished, the reconstituted drug is ready for immediate aspiration into the syringe used for injection.

#### Administration systems competitive landscape and growth outlook

We estimate the administration systems market to be about a \$200-\$300mn opportunity growing in the low-double digits. This market is highly fragmented and emerging, but major competitors include Becton Dickinson, Unilife Corp (UNIS, not covered), and West.

We are optimistic about trends in this market since products like SmartDose represent novel solutions to help customers overcome prior constraints surrounding the formulation and delivery of high volumes of certain biologic drugs. With an expected price of \$30 to \$35 per SmartDose unit, this system could represent a significant opportunity for West. The transfer and mix market represents another key growth opportunity, particularly as the rapid global expansion of cancer therapies has placed a greater emphasis on safe drug handling and worker safety.

#### Advanced injection systems

The company's main advanced injection systems are the ConfiDose and SelfDose auto-injector systems, which are designed to improve patient compliance and safety (Exhibit 5). A key feature of these systems is that the needle used by these systems remains shielded at all times and retracts automatically after the injection is administered, thus minimizing the risk of accidental sticks. Both of these systems are compatible with glass or CZ prefilled syringes. Broadly speaking, auto-injectors facilitate at home use, especially in the treatment of chronic diseases such as rheumatoid arthritis.

Through this business, the company also markets safety systems that are designed to prevent needle sticks. Products in this area include the NovaGuard passive safety needle system, a protective sheath that automatically slides over the needle of a syringe when it is extracted from the patient's skin. In addition, the company markets the eris and B.Safe safety systems for prefilled syringes.

Exhibit 5: West's ConfiDose system



Source: Image provided by West Pharmaceutical Services, Inc. 2013



We are positive on the outlook for auto-injectors given the emergence of self-administration as the preferred model of drug delivery

West offers contract manufacturing services to the healthcare and consumer industries

We see future growth in West's contract manufacturing business driven by higher customer demand

#### Advanced injection systems competitive landscape and growth outlook

We estimate the advanced injection systems market to be about \$300-\$400mn in size and growing in the low-to-mid double digits per annum. Key competitors in this market include Becton Dickinson, Mumford, Owen Mumford, SHL Group, Unilife, and Ypsomed.

We are positive on the outlook for auto-injectors given the emergence of self-administration as the preferred model of drug delivery due to its much more efficient model, including healthcare savings due to at home use and convenience for patients. We are also encouraged by trends in the safety market due to government regulations to identify, evaluate, and implement safer medical devices. While the U.S. market is most likely nearing full penetration (ie, 85-90%), uptake in Europe has been much slower, with penetration estimated to range 30-40%. However, new legislation should help increase adoption in this geography. In addition, we expect the emerging markets to help drive growth in this market segment longer-term.

#### Contract manufacturing (~78% of total segment sales)

West offers contract manufacturing services to the healthcare and consumer industries. For this business, the company does not own the intellectual property and instead produces systems using designs from customers.

In the healthcare market, West offers manufacturing and assembly of injection-molded components and devices for surgical, ophthalmic, diagnostic, and drug delivery systems. The company's product portfolio includes glucose monitoring devices, single use point-of-care devices, pipettes, cuvettes, blood filters, prefilled syringes, insulin pens, metered dose and dry powder inhalers.

For the consumer market, the company manufactures various personal care and consumer products, including closures for beverage containers, infant nurser assemblies, child-resistant and tamper-evident closures, and dispensers.

The contract manufacturing market is a multi-billion dollar industry and West is a limited participant in this space. However, we see the opportunity for low- to mid-single digit growth in the healthcare and consumer markets driven by customer demand for more efficient operations along with tailored services, particularly for complex projects.

Table 6: West income statement (2007A-2018E)

|                                                     | 2007A         | 2008A         | 2009A         | 2010A         | 2011A         | 2012A         | 2013E         | 2014E         | 2015E         | 2016E         | 2017E         | 2018E         |
|-----------------------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                                                     | FY            | FY            | FY            | FY            | FY            | FY            | FY            | FY            | FY            | FY            | FY            | FY            |
| Packaging Systems Sales                             | 741.8         | 760.4         | 776.0         | 785.0         | 857.4         | 915.1         | 1003.7        | 1079.0        | 1145.9        | 1214.6        | 1281.4        | 1351.9        |
| Delivery Systems Sales                              | 289.2         | 297.9         | 285.0         | 324.1         | 336.7         | 352.1         | 366.6         | 385.4         | 424.0         | 491.8         | 565.6         | 644.8         |
| Eliminations                                        | -10.9         | -7.2          | -5.3          | -4.4          | -1.8          | -0.8          | -1.2          | -1.2          | -1.2          | -1.2          | -1.2          | -1.2          |
| <b>Total Revenues</b>                               | <b>1020.1</b> | <b>1051.1</b> | <b>1055.7</b> | <b>1104.7</b> | <b>1192.3</b> | <b>1266.4</b> | <b>1369.1</b> | <b>1463.2</b> | <b>1568.7</b> | <b>1705.2</b> | <b>1845.8</b> | <b>1995.5</b> |
| <b>Costs and Expenses:</b>                          | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           |
| Total Cost of sales                                 | 728.3         | 748.5         | 752.1         | 786.6         | 853.0         | 878.7         | 933.6         | 985.8         | 1048.9        | 1134.2        | 1221.2        | 1315.4        |
| R&D                                                 | 16.1          | 18.7          | 19.9          | 23.9          | 29.1          | 33.3          | 37.3          | 38.5          | 41.6          | 44.2          | 46.9          | 49.8          |
| SG&A                                                | 152.5         | 159.3         | 177.7         | 187.8         | 191.1         | 218.0         | 237.0         | 248.5         | 261.7         | 279.5         | 295.9         | 314.0         |
| Other expense, net                                  | 1.9           | 1.7           | 1.0           | 1.7           | 1.5           | -5.4          | -0.6          | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           |
| Total Costs and Expenses                            | 170.5         | 179.7         | 198.6         | 213.4         | 221.7         | 246.0         | 273.6         | 286.9         | 303.3         | 323.7         | 342.8         | 363.8         |
| <b>Operating Income (Non-GAAP)</b>                  | <b>121.3</b>  | <b>122.9</b>  | <b>105.0</b>  | <b>104.7</b>  | <b>117.6</b>  | <b>141.8</b>  | <b>161.8</b>  | <b>190.5</b>  | <b>216.5</b>  | <b>247.4</b>  | <b>281.8</b>  | <b>316.2</b>  |
| Interest expense, net                               | -8.5          | -14.6         | -14.4         | -16.2         | -16.9         | -14.9         | -15.0         | -13.8         | -11.8         | -9.0          | -5.0          | -1.0          |
| <b>Income Before Taxes</b>                          | <b>112.8</b>  | <b>108.3</b>  | <b>90.6</b>   | <b>88.5</b>   | <b>100.7</b>  | <b>126.9</b>  | <b>146.8</b>  | <b>176.7</b>  | <b>204.7</b>  | <b>238.4</b>  | <b>276.8</b>  | <b>315.2</b>  |
| Income Taxes                                        | 32.4          | 26.8          | 21.2          | 20.2          | 25.0          | 34.5          | 38.4          | 46.1          | 54.3          | 63.2          | 73.4          | 83.5          |
| Minority interests                                  | 0.5           | 0.6           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           |
| Equity in net income of affiliated companies        | 2.5           | 0.8           | 3.0           | 4.4           | 6.3           | 4.7           | 4.4           | 4.4           | 4.5           | 4.7           | 4.9           | 5.0           |
| Interest expense on convertible debt, net of tax    | 3.4           | 4.4           | 4.4           | 4.4           | 4.4           | 2.2           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           |
| <b>Net Income (continuing operations; Non-GAAP)</b> | <b>85.7</b>   | <b>86.1</b>   | <b>76.8</b>   | <b>77.1</b>   | <b>86.4</b>   | <b>99.3</b>   | <b>112.9</b>  | <b>134.9</b>  | <b>155.0</b>  | <b>179.9</b>  | <b>208.4</b>  | <b>236.7</b>  |
| <b>EPS (Non-GAAP)</b>                               | <b>1.19</b>   | <b>1.19</b>   | <b>1.06</b>   | <b>1.05</b>   | <b>1.17</b>   | <b>1.38</b>   | <b>1.60</b>   | <b>1.92</b>   | <b>2.20</b>   | <b>2.55</b>   | <b>2.95</b>   | <b>3.35</b>   |
| Net Income (GAAP)                                   | 74.5          | 90.4          | 77.0          | 69.5          | 79.9          | 82.7          | 114.0         | 134.9         | 155.0         | 179.9         | 208.4         | 236.7         |
| EPS (GAAP)                                          | 1.03          | 1.25          | 1.06          | 0.95          | 1.08          | 1.15          | 1.62          | 1.92          | 2.20          | 2.55          | 2.95          | 3.35          |
| Diluted shares outstanding                          | 72.3          | 72.3          | 72.6          | 73.4          | 74.0          | 71.8          | 70.6          | 70.4          | 70.4          | 70.5          | 70.6          | 70.7          |
| <b>AS A PERCENT OF TOTAL REVENUES</b>               |               |               |               |               |               |               |               |               |               |               |               |               |
| <b>Margin Analysis:</b>                             |               |               |               |               |               |               |               |               |               |               |               |               |
| <b>Gross margin</b>                                 | <b>28.6%</b>  | <b>28.8%</b>  | <b>28.8%</b>  | <b>28.8%</b>  | <b>28.5%</b>  | <b>30.6%</b>  | <b>31.8%</b>  | <b>32.6%</b>  | <b>33.1%</b>  | <b>33.5%</b>  | <b>33.8%</b>  | <b>34.1%</b>  |
| Research and Development                            | 1.6%          | 1.8%          | 1.9%          | 2.2%          | 2.4%          | 2.6%          | 2.7%          | 2.6%          | 2.6%          | 2.6%          | 2.5%          | 2.5%          |
| SG&A                                                | 14.9%         | 15.2%         | 16.8%         | 17.0%         | 16.0%         | 17.2%         | 17.3%         | 17.0%         | 16.7%         | 16.4%         | 16.0%         | 15.7%         |
| Total operating expenses                            | 16.7%         | 17.1%         | 18.8%         | 19.3%         | 18.6%         | 19.4%         | 20.0%         | 19.6%         | 19.3%         | 19.0%         | 18.6%         | 18.2%         |
| <b>Operating Income</b>                             | <b>11.9%</b>  | <b>11.7%</b>  | <b>9.9%</b>   | <b>9.5%</b>   | <b>9.9%</b>   | <b>11.2%</b>  | <b>11.8%</b>  | <b>13.0%</b>  | <b>13.8%</b>  | <b>14.5%</b>  | <b>15.3%</b>  | <b>15.8%</b>  |
| Tax Rate                                            | 28.7%         | 24.7%         | 23.4%         | 22.8%         | 24.8%         | 27.2%         | 26.2%         | 26.1%         | 26.5%         | 26.5%         | 26.5%         | 26.5%         |
| <b>YEAR-OVER-YEAR GROWTH</b>                        |               |               |               |               |               |               |               |               |               |               |               |               |
| Total Packaging Systems Sales                       | 0.0%          | 0.0%          | 2.1%          | 1.2%          | 9.2%          | 6.7%          | 9.7%          | 7.5%          | 6.2%          | 6.0%          | 5.5%          | 5.5%          |
| Total Delivery Systems Sales                        | 0.0%          | 0.0%          | -4.3%         | 13.7%         | 3.9%          | 4.6%          | 4.1%          | 5.1%          | 10.0%         | 16.0%         | 15.0%         | 14.0%         |
| <b>Total Revenues</b>                               | <b>11.7%</b>  | <b>3.0%</b>   | <b>0.4%</b>   | <b>4.6%</b>   | <b>7.9%</b>   | <b>6.2%</b>   | <b>8.1%</b>   | <b>6.9%</b>   | <b>7.2%</b>   | <b>8.7%</b>   | <b>8.2%</b>   | <b>8.1%</b>   |
| COGS                                                | 12.3%         | 2.8%          | 0.5%          | 4.6%          | 8.4%          | 3.0%          | 6.3%          | 5.6%          | 6.4%          | 8.1%          | 7.7%          | 7.7%          |
| Total R&D                                           | 45.0%         | 16.1%         | 6.4%          | 20.1%         | 21.8%         | 14.4%         | 11.9%         | 3.3%          | 8.0%          | 6.3%          | 6.2%          | 6.2%          |
| Total SG&A                                          | 3.2%          | 4.5%          | 11.6%         | 5.7%          | 1.8%          | 14.1%         | 8.7%          | 4.8%          | 5.3%          | 6.8%          | 5.9%          | 6.1%          |
| Operating Expenses                                  | 4.1%          | 5.4%          | 10.5%         | 7.5%          | 3.9%          | 10.9%         | 11.3%         | 4.9%          | 5.7%          | 6.7%          | 5.9%          | 6.1%          |
| <b>Operating Income (non-GAAP)</b>                  | <b>20.1%</b>  | <b>1.3%</b>   | <b>-14.6%</b> | <b>-0.3%</b>  | <b>12.3%</b>  | <b>20.5%</b>  | <b>14.2%</b>  | <b>17.7%</b>  | <b>13.7%</b>  | <b>14.2%</b>  | <b>13.9%</b>  | <b>12.2%</b>  |
| <b>Net Income (non-GAAP)</b>                        | <b>31.9%</b>  | <b>0.5%</b>   | <b>-10.9%</b> | <b>0.4%</b>   | <b>12.0%</b>  | <b>14.9%</b>  | <b>13.7%</b>  | <b>19.6%</b>  | <b>14.8%</b>  | <b>16.1%</b>  | <b>15.8%</b>  | <b>13.6%</b>  |
| <b>Non-GAAP EPS</b>                                 | <b>22.6%</b>  | <b>0.5%</b>   | <b>-11.3%</b> | <b>-0.7%</b>  | <b>11.1%</b>  | <b>18.5%</b>  | <b>15.7%</b>  | <b>19.8%</b>  | <b>14.9%</b>  | <b>15.9%</b>  | <b>15.7%</b>  | <b>13.4%</b>  |

Source: BofA Merrill Lynch Global Research estimates, company reports

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**Table 7: West Balance Sheet (2007A-2018E)**

|                                                   | 2007A         | 2008A         | 2009A         | 2010A         | 2011A         | 2012A         | 2013E         | 2014E         | 2015E         | 2016E         | 2017E         | 2018E         |
|---------------------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Assets</b>                                     |               |               |               |               |               |               |               |               |               |               |               |               |
| Cash and cash equivalents                         | 108.4         | 87.2          | 83.1          | 110.2         | 91.8          | 161.9         | 219.7         | 294.2         | 356.8         | 375.6         | 420.6         | 521.5         |
| Short-term investments                            | 0.0           | 0.0           | 0.0           | 0.0           | 26.5          | 12.4          | 12.0          | 12.0          | 12.0          | 12.0          | 12.0          | 12.0          |
| Accounts receivable, net                          | 136.1         | 128.6         | 138.7         | 126.4         | 147.2         | 175.0         | 187.5         | 200.4         | 214.9         | 233.6         | 252.9         | 273.4         |
| Inventories, net                                  | 111.8         | 115.7         | 129.2         | 147.0         | 151.8         | 162.2         | 169.7         | 179.2         | 190.7         | 206.2         | 222.0         | 239.2         |
| Other current assets                              | 56.0          | 34.7          | 46.2          | 53.0          | 54.7          | 45.8          | 49.3          | 52.1          | 55.3          | 59.4          | 63.6          | 68.1          |
| <b>Total current assets</b>                       | <b>412.3</b>  | <b>366.2</b>  | <b>397.2</b>  | <b>436.6</b>  | <b>472.0</b>  | <b>557.3</b>  | <b>638.3</b>  | <b>738.0</b>  | <b>829.7</b>  | <b>886.8</b>  | <b>971.1</b>  | <b>1114.1</b> |
| Property, plant and equipment, net                | 481.7         | 531.0         | 577.1         | 554.8         | 593.6         | 669.0         | 723.8         | 782.3         | 845.0         | 913.2         | 987.1         | 1066.9        |
| Other assets                                      | 291.6         | 271.5         | 296.7         | 302.9         | 333.5         | 337.7         | 346.1         | 350.9         | 361.5         | 374.6         | 388.0         | 402.3         |
| <b>Total assets</b>                               | <b>1185.6</b> | <b>1168.7</b> | <b>1271.0</b> | <b>1294.3</b> | <b>1399.1</b> | <b>1564.0</b> | <b>1708.1</b> | <b>1871.1</b> | <b>2036.2</b> | <b>2174.6</b> | <b>2346.3</b> | <b>2583.3</b> |
| <b>Liabilities and Equity</b>                     | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    |
| <b>Current liabilities:</b>                       | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    | <b>0.0</b>    |
| Notes payable and other current debt              | 0.5           | 3.9           | 0.5           | 0.3           | 50.1          | 32.7          | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           |
| Accounts payable                                  | 80.4          | 67.6          | 68.4          | 63.2          | 89.8          | 102.9         | 107.4         | 108.4         | 110.1         | 113.4         | 116.0         | 118.4         |
| Other current liabilities                         | 102.0         | 87.6          | 102.2         | 106.2         | 103.3         | 126.2         | 129.7         | 138.4         | 148.2         | 160.8         | 173.9         | 188.0         |
| <b>Total current liabilities</b>                  | <b>182.9</b>  | <b>159.1</b>  | <b>171.1</b>  | <b>169.7</b>  | <b>243.2</b>  | <b>261.8</b>  | <b>237.1</b>  | <b>246.8</b>  | <b>258.3</b>  | <b>274.2</b>  | <b>289.9</b>  | <b>306.4</b>  |
| Long-term debt                                    | 394.6         | 382.1         | 379.1         | 358.1         | 299.3         | 378.8         | 378.8         | 377.8         | 352.8         | 270.8         | 193.3         | 151.3         |
| Other long-term liabilities                       | 117.2         | 140.4         | 141.7         | 140.8         | 201.7         | 194.5         | 206.8         | 219.5         | 233.8         | 252.2         | 271.2         | 291.4         |
| <b>Total liabilities</b>                          | <b>694.7</b>  | <b>681.6</b>  | <b>691.9</b>  | <b>668.6</b>  | <b>744.2</b>  | <b>835.1</b>  | <b>822.7</b>  | <b>844.2</b>  | <b>844.9</b>  | <b>797.2</b>  | <b>754.4</b>  | <b>749.1</b>  |
| <b>Total shareholders' equity</b>                 | <b>490.9</b>  | <b>487.1</b>  | <b>579.1</b>  | <b>625.7</b>  | <b>654.9</b>  | <b>728.9</b>  | <b>885.4</b>  | <b>1027.0</b> | <b>1191.4</b> | <b>1377.4</b> | <b>1591.9</b> | <b>1834.3</b> |
| <b>Total liabilities and shareholders' equity</b> | <b>1185.6</b> | <b>1168.7</b> | <b>1271.0</b> | <b>1294.3</b> | <b>1399.1</b> | <b>1564.0</b> | <b>1708.1</b> | <b>1871.1</b> | <b>2036.2</b> | <b>2174.6</b> | <b>2346.3</b> | <b>2583.3</b> |

Source: BofA Merrill Lynch Global Research estimates, company reports

**Table 8: West Cash Flow (2007A-2018E)**

|                                      | 2007A          | 2008A          | 2009A          | 2010A         | 2011A          | 2012A          | 2013E          | 2014E          | 2015E          | 2016E          | 2017E          | 2018E          |
|--------------------------------------|----------------|----------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Net income (GAAP)                    | 74.5           | 90.4           | 77.0           | 69.5          | 79.9           | 82.7           | 114.0          | 134.9          | 155.0          | 179.9          | 208.4          | 236.7          |
| Adjustments to net income            | 3.3            | 3.8            | 4.4            | 4.2           | 4.3            | 2.0            | -              | -              | -              | -              | -              | -              |
| Net income                           | 71.2           | 86.6           | 72.6           | 65.3          | 75.5           | 80.7           | 114.0          | 134.9          | 155.0          | 179.9          | 208.4          | 236.7          |
| Gain from dis. ops, net of tax       | 0.5            | -              | -              | -             | -              | -              | -              | -              | -              | -              | -              | -              |
| Depreciation                         | 51.6           | 56.1           | 63.9           | 68.8          | 71.1           | 72.8           | 82.1           | 87.8           | 94.1           | 102.3          | 110.7          | 119.7          |
| Amortization                         | 5.0            | 4.5            | 4.2            | 4.4           | 4.6            | 4.1            | 5.5            | 5.9            | 6.3            | 6.8            | 7.4            | 8.0            |
| Total other                          | 15.9           | 17.9           | 12.6           | 12.3          | 0.6            | 33.1           | 13.7           | 14.6           | 15.7           | 17.1           | 18.5           | 20.0           |
| Changes in op. assets & liabilities  | (15.0)         | (30.1)         | (15.6)         | (12.5)        | (21.1)         | (3.3)          | (15.6)         | (21.3)         | (24.2)         | (30.9)         | (32.5)         | (35.3)         |
| <b>Operating activities</b>          | <b>129.2</b>   | <b>135.0</b>   | <b>137.7</b>   | <b>138.3</b>  | <b>130.7</b>   | <b>187.4</b>   | <b>213.3</b>   | <b>236.5</b>   | <b>262.5</b>   | <b>292.2</b>   | <b>330.9</b>   | <b>369.1</b>   |
| PP&E                                 | (129.4)        | (138.6)        | (104.9)        | (71.1)        | (95.4)         | (131.3)        | (136.9)        | (146.3)        | (156.9)        | (170.5)        | (184.6)        | (199.5)        |
| M&A and other                        | (4.7)          | (0.5)          | (19.8)         | (6.4)         | (1.4)          | (0.7)          | -              | -              | -              | -              | -              | -              |
| Investments                          | (22.7)         | 16.8           | 2.6            | 1.7           | (25.6)         | 14.4           | -              | -              | -              | -              | -              | -              |
| Other                                | 0.9            | 2.6            | 0.2            | 1.8           | 1.9            | 1.6            | (3.0)          | -              | -              | -              | -              | -              |
| <b>Investing activities</b>          | <b>(155.9)</b> | <b>(119.7)</b> | <b>(121.9)</b> | <b>(74.0)</b> | <b>(120.5)</b> | <b>(116.0)</b> | <b>(139.9)</b> | <b>(146.3)</b> | <b>(156.9)</b> | <b>(170.5)</b> | <b>(184.6)</b> | <b>(199.5)</b> |
| Issuance of debt (repayment of debt) | 137.5          | (9.2)          | (10.2)         | (16.0)        | (7.3)          | 10.4           | -              | (1.0)          | (25.0)         | (82.0)         | (77.5)         | (42.0)         |
| Dividend payments                    | (17.5)         | (18.6)         | (20.1)         | (21.7)        | (23.2)         | (24.9)         | (27.5)         | (29.7)         | (33.1)         | (35.9)         | (38.8)         | (41.7)         |
| Other                                | (35.4)         | (1.6)          | 7.7            | 3.7           | 5.8            | 11.1           | 10.0           | 10.0           | 10.0           | 10.0           | 10.0           | 10.0           |
| <b>Financing activities</b>          | <b>84.6</b>    | <b>(29.4)</b>  | <b>(22.6)</b>  | <b>(34.0)</b> | <b>(24.7)</b>  | <b>(3.4)</b>   | <b>(12.5)</b>  | <b>(15.7)</b>  | <b>(43.1)</b>  | <b>(102.9)</b> | <b>(101.3)</b> | <b>(68.7)</b>  |
| FX                                   | 3.4            | (7.1)          | 2.7            | (3.2)         | (3.9)          | 2.1            | (3.1)          | -              | -              | -              | -              | -              |
| <b>Net change in cash</b>            | <b>61.3</b>    | <b>(21.2)</b>  | <b>(4.1)</b>   | <b>27.1</b>   | <b>(18.4)</b>  | <b>70.1</b>    | <b>57.8</b>    | <b>74.5</b>    | <b>62.6</b>    | <b>18.8</b>    | <b>45.1</b>    | <b>100.8</b>   |

Source: BofA Merrill Lynch Global Research estimates, company reports

## Price objective basis & risk

### West Pharmaceutical Services (WST)

Our \$50 PO is based on 13x our '14 EBITDA est vs. approximately 10x for West's peers. In our view a premium is warranted due to the company's new product cycle, accelerating organic sales, and margin expansion. Our PO is also backed by DCF analysis, which assumes about a 8.5% WACC and 2.5% terminal growth rate. Risks are product adoption timing due to evaluation periods of novel products, volatility in raw material costs and currencies, changes in customer order lead times, and disruptions in the supply of key manufacturing materials.

## Link to Definitions

### Healthcare

Click [here](#) for definitions of commonly used terms.

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### US - Life Science & Diagnostic Tools Coverage Cluster

| Investment rating   | Company                              | BofA Merrill Lynch ticker | Bloomberg symbol | Analyst        |
|---------------------|--------------------------------------|---------------------------|------------------|----------------|
| <b>BUY</b>          |                                      |                           |                  |                |
|                     | Agilent Technologies                 | A                         | A US             | Derik de Bruin |
|                     | Bruker Corporation                   | BRKR                      | BRKR US          | Derik de Bruin |
|                     | FEI Company                          | FEIC                      | FEIC US          | Derik de Bruin |
|                     | Illumina, Inc.                       | ILMN                      | ILMN US          | Derik de Bruin |
|                     | Mettler-Toledo                       | MTD                       | MTD US           | Derik de Bruin |
|                     | PerkinElmer                          | PKI                       | PKI US           | Derik de Bruin |
|                     | Quintiles Transnational Holdings Inc | Q                         | Q US             | Derik de Bruin |
|                     | Thermo Fisher Scientific             | TMO                       | TMO US           | Derik de Bruin |
|                     | Waters Corp.                         | WAT                       | WAT US           | Derik de Bruin |
|                     | West Pharmaceutical Services         | WST                       | WST US           | Rafael Tejada  |
| <b>NEUTRAL</b>      |                                      |                           |                  |                |
|                     | Cepheid Inc                          | CPHD                      | CPHD US          | Derik de Bruin |
|                     | Charles River Laboratories           | CRL                       | CRL US           | Rafael Tejada  |
|                     | Covance Inc                          | CVD                       | CVD US           | Rafael Tejada  |
|                     | Myriad Genetics                      | MYGN                      | MYGN US          | Derik de Bruin |
|                     | Pall Corporation                     | PLL                       | PLL US           | Derik de Bruin |
|                     | Qiagen                               | QGEN                      | QGEN US          | Derik de Bruin |
|                     | Qiagen N.V.                          | XQGNF                     | QIA GR           | Derik de Bruin |
| <b>UNDERPERFORM</b> |                                      |                           |                  |                |
|                     | Affymetrix Inc                       | AFFX                      | AFFX US          | Derik de Bruin |
|                     | Becton, Dickinson and Company        | BDX                       | BDX US           | Derik de Bruin |
|                     | Genomic Health                       | GHDX                      | GHDX US          | Derik de Bruin |
|                     | Sigma-Aldrich                        | SIAL                      | SIAL US          | Derik de Bruin |

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

| <b>Business Performance</b> | <b>Numerator</b>                                                                                                                          | <b>Denominator</b>                                                                                |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Return On Capital Employed  | $\text{NOPAT} = (\text{EBIT} + \text{Interest Income}) * (1 - \text{Tax Rate}) + \text{Goodwill Amortization}$                            | $\text{Total Assets} - \text{Current Liabilities} + \text{ST Debt} + \text{Accumulated Goodwill}$ |
| 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                                                                                               |
| <b>Quality of Earnings</b>  |                                                                                                                                           |                                                                                                   |
| 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    | $\text{Net Debt} = \text{Total Debt, Less Cash \& Equivalents}$                                                                           | Total Equity                                                                                      |
| Interest Cover              | EBIT                                                                                                                                      | Interest Expense                                                                                  |
| <b>Valuation Toolkit</b>    |                                                                                                                                           |                                                                                                   |
| 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                                                                                                   | $\text{Market Cap.} = \text{Current Share Price} * \text{Current Basic Shares}$                   |
| Enterprise Value / Sales    | $\text{EV} = \text{Current Share Price} * \text{Current Shares} + \text{Minority Equity} + \text{Net Debt} + \text{Other LT Liabilities}$ | Sales                                                                                             |
| EV / EBITDA                 | Enterprise Value                                                                                                                          | Basic EBIT + Depreciation + Amortization                                                          |

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### Investment Rating Distribution: Health Care Group (as of 30 Sep 2013)

| Coverage Universe | Count | Percent | Inv. Banking Relationships* | Count | Percent |
|-------------------|-------|---------|-----------------------------|-------|---------|
| Buy               | 136   | 53.33%  | Buy                         | 101   | 74.26%  |
| Neutral           | 54    | 21.18%  | Neutral                     | 40    | 74.07%  |
| Sell              | 65    | 25.49%  | Sell                        | 36    | 55.38%  |

### Investment Rating Distribution: Global Group (as of 30 Sep 2013)

| Coverage Universe | Count | Percent | Inv. Banking Relationships* | Count | Percent |
|-------------------|-------|---------|-----------------------------|-------|---------|
| Buy               | 1672  | 49.06%  | Buy                         | 1234  | 73.80%  |
| Neutral           | 856   | 25.12%  | Neutral                     | 622   | 72.66%  |
| Sell              | 880   | 25.82%  | Sell                        | 551   | 62.61%  |

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| 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 BofA Merrill Lynch Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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08 October 2013

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