



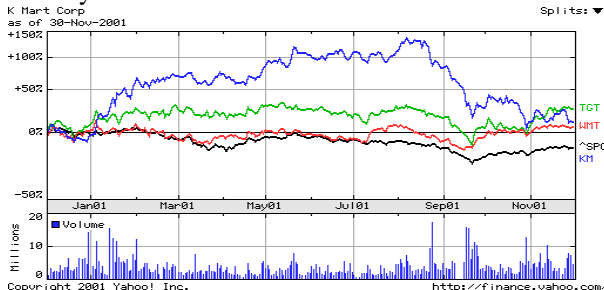
Analysis of the Kmart Corporation



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Investment Recommendation: HOLD

As of November 30, 2001

|   |                   |   |         |                        |         |          |
|---|-------------------|---|---------|------------------------|---------|----------|
| KM – NYSE (11/30/2001)  | \$ 6.10           | <u>EPS Forecast</u>                           |         |                        |         |          |
| 52 week range   | \$4.75 - \$13.55  | <b>FYE 1/24</b>                               | 1999A   | 2000A                  | 2001E   | 2002E    |
| Revenue (2001 estimated)  | \$ 37,028,000,000 | EPS   | \$1.29  | -\$0.49                | -\$0.10 | \$0.19   |
| Market Capitalization (11/30/01)  | \$ 3,040,343,700  | <u>Ratios</u>                                 | Firm    | Average of Competitors |         |          |
| Share Outstanding   | 498,417,000       | Forward P/E                                   | N/A     | 23.84                  |         |          |
| Dividend Yield  | 0.00%             | Forward PEG                                   | N/A     | 1.77                   |         |          |
| Avg Daily Trading Volume  | 4,639,272         | M/B   | 0.52    | 4.60                   |         |          |
| Book Value per Share (11/01)  | \$11.75           | <u>Valuation Predictions</u>                  |         |                        |         |          |
| Return on Equity (TTM)  | 1.20%             | Actual Current Price                          |         |                        |         | \$ 6.10  |
| Return on Assets (TTM)  | 0.71%             | P/E Valuation (TTM)                           |         |                        |         | \$ 5.46  |
| Est. 5 Years EPS Growth Rate  | 30-40%            | PEG Valuation (TTM)                           |         |                        |         | \$ 3.41  |
|   |                   | EBO (Abnormal Earnings) Valuation             |         |                        |         | \$ 6.57  |
|   |                   | DCF Valuation (Direct FCF Method)             |         |                        |         | \$ 12.12 |
|   |                   | DCF Valuation (Indirect FCF Method)           |         |                        |         | \$ 14.15 |
| <b>Industry DISCOUNT RETAILING</b>  |                   | <u>Stock Performance (annualized returns)</u> |         |                        |         |          |
|  |                   | Trailing                                      | 1 year  | 3 years                | 5 years |          |
|   |                   | Kmart Return                                  | 10.91%  | -26.32%                | -17.84% |          |
|   |                   | Return on S&P 500                             | -13.35% | -0.70%                 | 8.52%   |          |
|   |                   | Return on Wal-Mart                            | 6.28%   | 14.10%                 | 34.79%  |          |
|   |                   | Return on Target Corp.                        | 25.61%  | 19.36%                 | 32.10%  |          |
|   |                   |   |         |                        |         |          |

- Assigning a rating of HOLD on Kmart Corporation at its current price of \$6.10 and a wide range of sensitive valuations based on various accepted methods—the current price is within this range;
- Kmart remains the second largest discount retailer in the United States (in terms of sales), second only to worldwide industry leader Wal-Mart;
- Large investments in supply chain management, customer service, and marketing will continue through the end of 2002, resulting in negative estimated earnings in the upcoming year;
- Current trading price is near its 52-week low of \$4.75 (trading at a 55% discount from 52-week high of \$63);
- Kmart sales are estimated to grow at 10%, below the industry average of 15% due to a lack of an international presence and continuing strategic and competitive challenges.

**Rating System:**

BUY: A strong purchase recommendation with above average long-term growth potential.

HOLD: A recommendation to maintain current positions with returns to match that of the market.

SELL: A recommendation to sell the security (or short the security) as it is expected to decrease in price in the medium term.

## **Strategic Analysis**

### **Business Model**

Based in Troy, Michigan, the Kmart Corporation (NYSE: KM) is a discount retailer and general merchandise retailer—the second largest such retailer in terms of sales in the United States. Once an international retailer with over 12 different specialty retail formats, Kmart is now a domestic-only retailer with four basic formats: discount stores, Big Kmart stores, Super Kmart stores, and BlueLight.com. The company sells name-brand and private-label general merchandise, including the popular Martha Stewart Everyday and Route 66 labels, through its more than 2,100 discount stores. The stores are located in each of the 50 states, Puerto Rico, The United States Virgin Islands, and Guam. Its general merchandise retail operations are located in 321 of the 331 Metropolitan Statistical Areas in the United States. Kmart stores are generally one-floor, freestanding units, ranging in size from 40,000 to 190,000 square feet. The customer base generally consists of low- to mid-income families.

Kmart Corporation is #36 in the Fortune 500, #46 in Hoover's 500, and is included in the S&P 500.

### **Competitors**

Kmart Corporation faces tough competition domestically. The main forces of competition in discount merchandise retailing are low prices, customer service, and product availability. Below are descriptions of five major competitors of Kmart, courtesy of the *Yahoo! Finance* website:

#### *Wal-Mart Stores Inc.*

Wal-Mart Stores Inc. is principally engaged in the operation of mass merchandising stores. At January 31, 2001, the Company operated 1,736 discount stores, 888 Supercenters, 475 SAM'S Clubs and 19 Neighborhood Markets. Internationally, at January 31, 2001, the Company operated units in Argentina (11), Brazil (20), Canada (174), Germany (94), Korea (6) Mexico (499), Puerto Rico (15) and the United Kingdom (241), and, under joint venture agreements, in China (11). The Company operates through three segments, the Wal-Mart Stores segment, the SAM'S Club segment and the International segment. For the nine months ended 10/31/01, revenues rose 14% to \$155.05 billion. Net income rose 4% to \$4.48 billion. Revenues reflect higher international, McLane, Wal-Mart and SAM'S Club sales. Net income was partially offset by reduced gross margins and an increase in operating, selling, general and administrative expenses and minority interest losses.

#### *Sears, Roebuck and Co.*

Sears, Roebuck and Co. is a multi-line retailer that provides a wide array of merchandise and services. As of December 30, 2000, the Company organized its business into four domestic segments and one international segment. The Company's segments in the United States and Puerto Rico are Retail (comprised of Full-line Stores and Specialty Stores), Services (comprised of Home Services and Direct Response), Credit (comprised of the domestic credit operations) and Corporate (comprised of activities that are of a holding company nature and its investment in Sears Online). The International segment consists of similar retail, services, credit and corporate operations conducted through a majority-owned subsidiary in Canada. For the thirty-nine weeks ended 9/01, revenues increased 1% to \$28.84 billion. Net income fell 73% to \$241 million. Revenues reflect higher managed portfolio yields. Earnings were offset by the inclusion of a \$522 million provision for securitized receivables.

#### *Target Corporation*

Target Corporation is engaged in general merchandise retailing. The Company's store brands include Target, Marshall Field's and Mervyn's. In early 2000, target.direct, the direct merchandising and electronic retailing organization of Target Corporation, was formed. The business combines the e-commerce team of Target with its direct merchandising unit into one integrated organization. The target.direct organization operates seven Websites, which support the store and catalog brands in an online environment and produces six retail catalogs. Target Corporation also owns Associated Merchandising Corporation (AMC), which sources the high quality apparel and hardlines merchandise for the company. AMC also provides international sourcing for a number of retailers. As of 12/00, the Company operated 978 Target locations, 267 Mervyn's locations, and 64 department store locations throughout the U.S. For the 26 weeks ended

8/4/01, revenues rose 8% to \$17.3 billion. Net income before extraordinary item rose 6% to \$526 million. Results reflect increased revenues at Target due to the opening of new stores, partially offset by increased depreciation expense.

#### *Big Lots, Inc.*

Big Lots, Inc., formerly known as Consolidated Stores Corporation, incorporated in 1983, is a broadline closeout retailer. At February 3, 2001, the Company operated a total of 1,290 stores in 46 states. The Company's retail operations are conducted as Big Lots, Big Lots Furniture, Odd Lots, Pic 'N' Save and Mac Frugal's Bargains - Close-Outs. Wholesale operations are conducted under the names Consolidated International and Wisconsin Toy. In May 2001, the Company changed its corporate name from Consolidated Stores Corporation to Big Lots, Inc. The Company plans to convert all stores to the Big Lots brand name over a three-year period. The Company believes that Big Lots is its most recognizable brand name and this change will offer numerous opportunities to increase brand awareness among customers, suppliers, investors and the general public. For the 26 weeks ended 8/4/01, net sales rose 6% to \$1.52 billion. Net loss from continuing operations totaled \$10.4 million, vs. an income of \$23.6 million. Results reflect store additions and higher comparable store sales, offset by lower gross margins.

#### *Costco Wholesale Corporation*

Costco Wholesale Corporation operates membership warehouses that offer very low prices on a limited selection of nationally branded and selected private label products in a wide range of merchandise categories in no-frills, self-service warehouse facilities. At September 3, 2000, Costco operated 313 warehouse clubs, comprised of 237 in the United States, 59 in Canada, 10 in the United Kingdom, three in Korea, three in Taiwan, and one in Japan. As of September 3, 2000, the Company also operated (through a 50%-owned joint venture) 18 warehouses in Mexico. For the fiscal year ended 9/2/01, revenues increased 8% to \$34.80 billion. Earnings fell 5% to \$602.1 million. Revenues reflect the opening of 32 new warehouses. Earnings were offset by higher merchandise costs and S/G/A expenses.

## **Current Restructuring Program and Future Outlook**

In the late 1980s and early 1990s, Kmart went through a period of rapid expansion. The company acquired a portfolio of category-dominant chains to complement its core business, the Kmart discount store. Due to poor management and overextension, this strategy eventually brought Kmart to near-bankruptcy in the mid-'90s. To avoid this occurrence, Kmart began selling off all business units and interests that were not related to the core discount stores.

In May 2000, Charles Conaway, former President and Chief Operating Officer of CVS Corporation, was named Chairman and CEO of Kmart. He replaced Floyd Hall, who had served as Chairman and CEO for nearly five years. His goal is to "fix" the business by September 2002. Conaway has restructured the Kmart organization under three strategic imperatives:

- improving supply chain efficiencies and in-store execution;
- creating a customer-centric culture; and
- developing marketing and sales opportunities designed to create a sustainable bond with the consumer and to differentiate Kmart.

According to Conaway, the makeover is "a massive cultural as well as structural transformation." Many things about Kmart were "broken," including the supply chain and the computer systems intended to track sales and inventory. In addition, the retailer has suffered from what the New York Times has called an "identity crisis"—in a November 8<sup>th</sup> article, the newspaper stated that "While its name may be embedded in the nation's consciousness—with its Blue-Light specials and its battle cry 'Attention Kmart shoppers'—many shoppers have been unclear for years just why they should go to Kmart." Wal-Mart became the world's biggest retailer by efficiently delivering the lowest-priced goods in town; Target created an image as the place for the simultaneously price-conscious and fashionable. At Kmart, shoppers have complained for years that the products they most wanted were often out of stock. Prices, while low, have been regularly undercut by Wal-Mart. In addition, poor customer service has been long associated with the customer experience at Kmart, with only 40% customer satisfaction in 2000.

Kmart's commitment to change has already been evidenced by store closings, inventory reduction acceleration, and information technology strategy upgrades. Kmart recorded one-time pre-tax charges of \$740 million in the second quarter 2000 and \$148 million in the third quarter of 2001 as a result of these initiatives. Conaway has also stressed a new marketing focus on mothers, describing Kmart as "the retail destination that best meets their families' need." He has also stressed a commitment to lower prices through the new "BlueLight Always" program, and has been trying to improve customer service through service-ranking-based compensation systems for store managers. Since Conaway's arrival, the percentage of items in stock has risen from a dismal 73% to a more-respectable 86%. The business has not yet been "turned around," however, as evidenced by the fact that they have posted losses for five of the last six fiscal quarters.

One other method of cost-savings currently being employed, but not publicized, by Kmart has been taking longer to pay their suppliers. Basically, Kmart is taking out no interest loans by extending the payback period. This practice has strained Kmart's relationships with many of its suppliers.

As part of its turnaround attempt, the firm is converting its old, outdated Kmart discount stores into Big Kmart outlets that feature an expanded selection of merchandise, including small grocery sections (although the company announced in mid-2001 that it is dropping the Big Kmart name). This signifies a clear move towards a general store format more in line with their 100-plus Super Kmart Centers (similar to Wal-Mart's Supercenter stores), which offer a full line of groceries and general merchandise.

As described in the Wall Street Journal in a November 28<sup>th</sup> 2001 article, there are doubts in the market whether anyone could turn Kmart around and successfully compete with Wal-Mart. Goldman-Sachs analyst George Strachan believes that Wal-Mart and Target have "perfectly divvied up the market," with Wal-Mart capturing the majority of shoppers earning \$50,000/year or less, and Target attracting most of those that earn more. This may be true—the recent state of the U.S. economy has driven consumers to become more bargain-conscious and has boosted sales at Wal-Mart and Target, while Kmart's sales have slightly decreased.

Conaway believes that Kmart has much work to do before its base business is sound and the company can again focus on growth. We believe that the upcoming holiday season should be very telling in regards to the success of the restructuring program and Kmart's hopes for the future. Though we believe earnings will again be negative in 2001, we believe that Conaway's efforts will likely pay off, eventually allowing the company to again focus on growth, albeit below the growth of industry leader Wal-Mart, which attributes much of its recent growth to international markets. This success should be realized through a continued commitment to improved customer service, supply chain practices/systems, and marketing.

The chart below shows a comparison of the performance of Kmart with that of Wal-Mart and Target in the 2000 timeframe.

|          | Sales per SF (Figures for 2000) | Inventory Turnover (Number of times per year, 2000) | Same-store Sales Growth (1999-2000 for stores open a year or more) |
|----------|---------------------------------|---|--|
| Wal-Mart | \$398                           | 7.3   | 7.6%   |
| Target   | \$265                           | 6.3   | 2.4%   |
| Kmart    | \$237                           | 4.3   | 1.1%   |

Sources of information:

- Hays, Constance L., "Slow Lane to Kmart's Recovery," New York Times, November 8, 2001.
- Merrick, Amy, "Kmart Loss Widens on Hefty Charge Tied To Supply-Chain Overhaul, Weaker Sales," Wall Street Journal, November 28, 2001.
- Yahoo! Finance website
- Hoover's Online website
- Management Ventures, Inc., "Kmart: Corporate Overview," ©2000 (thanks to Jon Feld of MVentures for kindly providing this information).

## Valuation Analysis

### Comparative analysis - calculation of ratios

| Company                 | Assigned Weight | Price (close 30 Nov 01) | EPS (TTM)      | P/E Ratio (TTM) | Estimated EPS 2002 | Fwd P/E        | 5-year expected growth rate | PEG (TTM)      | Price/Sales (TTM) | Price/Book (MRQ) |
|-------------------------|-----------------|-------------------------|----------------|-----------------|--------------------|----------------|-----------------------------|----------------|-------------------|------------------|
| Wal-Mart (WMT)          | 2               | \$ 55.15                | \$ 1.45        | 38.07           | 1.71               | 32.25          | 14.20%                      | 2.68           | 1.17              | 7.18             |
| Target (TGT)            | 2               | \$ 37.54                | \$ 1.42        | 26.50           | 1.69               | 22.21          | 14.50%                      | 1.83           | 0.86              | 4.74             |
| Big Lots (BLI)          | 1               | \$ 9.40                 | \$ 0.40        | 23.40           | 0.47               | 20.00          | 14.80%                      | 1.58           | 0.29              | 1.07             |
| Costco (COST)           | 1               | \$ 40.88                | \$ 1.29        | 31.79           | 1.69               | 24.19          | 14.20%                      | 2.24           | 0.56              | 3.78             |
| Fred's Inc. (FRED)      | 1               | \$ 33.19                | \$ 1.18        | 28.04           | 1.39               | 23.88          | 20.00%                      | 1.40           | 0.55              | 2.84             |
| Dollar General (DG)     | 1               | \$ 13.50                | \$ 0.54        | 24.87           | 0.84               | 16.07          | 20.80%                      | 1.20           | 1.13              | 4.78             |
| Family Dollar (FDO)     | 1               | \$ 29.80                | \$ 1.07        | 27.74           | 1.43               | 20.84          | 19.40%                      | 1.43           | 1.43              | 5.46             |
| Kohl's (KSS)            | 0.5             | \$ 67.85                | \$ 1.32        | 51.30           | 1.68               | 40.39          | 23.30%                      | 2.20           | 3.23              | 8.68             |
| Circuit City (CC)       | 0.5             | \$ 17.55                | \$ 0.29        | 59.92           | 0.93               | 18.87          | 13.90%                      | 4.31           | 0.33              | 1.33             |
| Best Buy (BBY)          | 0.5             | \$ 71.39                | \$ 1.92        | 37.14           | 2.63               | 27.14          | 19.90%                      | 1.87           | 0.84              | 6.97             |
| Sears (S)               | 0.5             | \$ 45.51                | \$ 2.10        | 21.64           | 4.46               | 10.20          | 9.60%                       | 2.25           | 0.36              | 2.33             |
| Walgreen (WAG)          | 0.5             | \$ 33.00                | \$ 0.82        | 40.21           | 1.17               | 28.21          | 18.00%                      | 2.23           | 1.45              | 7.03             |
| CVS                     | 0.5             | \$ 26.95                | \$ 1.98        | 13.58           | 1.73               | 15.58          | 13.30%                      | 1.02           | 0.47              | 2.18             |
| Toys 'R' Us (TOY)       | 0.5             | \$ 21.51                | \$ 0.75        | 28.74           | 1.36               | 15.82          | 11.80%                      | 2.44           | 0.40              | 1.30             |
| The GAP (GPS)           | 0.5             | \$ 13.23                | \$ 0.30        | 43.67           | 0.60               | 22.05          | 17.00%                      | 2.57           | 0.90              | 4.17             |
| Lowe's (LOW)            | 0.5             | \$ 45.31                | \$ 1.30        | 34.76           | 1.49               | 30.41          | 20.80%                      | 1.67           | 1.54              | 5.06             |
| Home Depot (HD)         | 0.5             | \$ 46.65                | \$ 1.20        | 39.01           | 1.50               | 31.10          | 20.10%                      | 1.94           | 2.16              | 6.24             |
| <b>Weighted average</b> |                 |                         |                | 32.14           |                    | 23.84          |                             | 2.01           | 0.99              | 4.60             |
| <b>KMART (KM)</b>       |                 | <b>\$ 6.10</b>          | <b>\$ 0.17</b> | <b>35.88</b>    | <b>\$ 0.19</b>     | <b>32.11</b>   | 10.00%                      | 3.59           | <b>0.08</b>       | <b>0.52</b>      |
| <b>Predicted price</b>  |                 |                         |                | <b>\$ 5.46</b>  |                    | <b>\$ 4.53</b> |                             | <b>\$ 3.41</b> | <b>\$ 73.55</b>   | <b>\$ 54.04</b>  |

For the purposes of this analysis, 17 competitors were identified and weighted to give a representative of Kmart's segment in discount retail. Analysis of Kmart's sales, cash flow, earnings and book value of equity reveals very significant differences from these competitors. In particular, Kmart's Price/Book and Price/Sales ratios are far lower than for any other close competitor, as can be seen from the table above. The Price/Book value of 0.52 might suggest that Kmart's book value of equity is artificially high, although intangibles do not make up a significant portion of the firm's assets. The low Price/Sales ratio is most likely due to the fact that despite annual sales of almost \$40 billion, discount retailing remains an industry with razor-thin margins.

As a result, although price predictions based on comparing Kmart's P/S and P/B with the weighted competitor average suggests the company is greatly undervalued, we do not consider these predictions reliable.

Kmart's earnings ratios are much more in line with its competitors in discount retailing, and with the average values for S&P500. This suggests that, despite industry-specific characteristics, Kmart's stock is essentially valued based on earnings. Comparative valuation based on the P/E for the last 12 months suggests the stock is slightly overvalued. A forward P/E comparison, based on expected earnings for 2002, and an estimate based on the PEG ratio for the last 12 months also suggest a lower price.

### Ground-up Estimates of Future Firm Financial Performance

Projections of future net income and earnings per share were calculated based on estimating growth rates and ratios for Kmart from 2001-2005 based on long-term historical averages for the company, industry, and economy. The following major assumptions were made:

- Sales Growth- 0% growth in 2001 due to restructuring. 10% growth in 2002 and beyond which is between the historical sales growth for Kmart and the industry growth. 10% growth is realistic

- since Kmart does not have international operations, which is a source of growth for other companies within the discount retail industry.
- COGS/Sales- Ratio will remain constant as the average from 1996-2000. Expected improvements in supply chain efficiency will be balanced out by increase in sales. Kmart's COGS/Sales ratio is in line with Wal-Mart's ratio of 0.79.
  - SG&A/Sales- Ratio will remain constant at 0.20
  - Depreciation/PPE- Ratio will remain constant at 0.06
  - Other/Sales- In 2001 Other Expenses will decrease to 1% of sales (still a rather high level due to continuing restructuring). In 2002 and beyond, the historical average for Kmart is assumed.
  - Interest/Debt- Ratio will remain constant from historical growth from 1998-2000
  - Tax rate- Projected long-term tax rate for industry.

| Component             | 1996        | 1997        | 1998        | 1999        | 2000         | 2001E        | 2002E       | 2003E       | 2004E       | 2005E       |
|-----------------------|-------------|-------------|-------------|-------------|--------------|--------------|-------------|-------------|-------------|-------------|
| Sales                 | 31,437      | 32,183      | 33,674      | 35,925      | 37,028       | 37,028       | 38,806      | 41,342      | 44,760      | 49,236      |
| COGS                  | 23,736      | 24,492      | 25,648      | 27,332      | 28,516       | 28,205       | 29,560      | 31,492      | 34,095      | 37,505      |
| SG&A                  | 6,274       | 6,136       | 6,245       | 6,523       | 7,052        | 7,406        | 7,761       | 8,268       | 8,952       | 9,847       |
| Depreciation          | 654         | 660         | 671         | 770         | 777          | 779          | 795         | 816         | 837         | 859         |
| Other Income          | 10          | -114        | -19         | 0           | -728         | -370         | -182        | -194        | -210        | -231        |
| EBIT                  | 783         | 781         | 1,091       | 1,300       | -45          | 268          | 508         | 573         | 666         | 795         |
| Interest              | 484         | 412         | 343         | 330         | 333          | 347          | 361         | 376         | 391         | 407         |
| Taxes                 | 68          | 120         | 230         | 337         | -134         | -28          | 54          | 73          | 104         | 149         |
| <b>Net Income</b>     | <b>231</b>  | <b>249</b>  | <b>518</b>  | <b>633</b>  | <b>-244</b>  | <b>-50</b>   | <b>94</b>   | <b>124</b>  | <b>171</b>  | <b>239</b>  |
| <b>Earnings/Share</b> | <b>0.46</b> | <b>0.50</b> | <b>1.04</b> | <b>1.27</b> | <b>-0.49</b> | <b>-0.10</b> | <b>0.19</b> | <b>0.25</b> | <b>0.34</b> | <b>0.48</b> |

Projected net income values are used to determine free cash flows for the valuation analysis by the indirect method as well as an input to the residual income valuation analysis. See the Appendix for expected annual percentage ratios in addition to long term historical averages for Kmart, the industry, and the overall economy.

## Discounted Cash Flow (DCF) Valuation

First, we estimate the Equity Beta for Kmart in order to approximate the expected return of the stock. The Beta is calculated using a regression of 60-months of historical data on the risk-free rate, return on the market (S&P500 portfolio, of which Kmart is a part), and the return on Kmart stock. See the Appendix for this regression. The risk-free rate used in the final calculation of the expected rate of the return on the stock is the *October 2001 30-Year Treasury Constant Maturity Rate*, as listed online at <http://www.stls.frb.org/fred>. Below is the calculation of this final rate of return, including a sensitivity analysis with varying Market Risk Premiums ( $R_m - R_f$ ).

### CAPM Calculation (including sensitivity analysis)

| Rf           | Beta        | Rm-Rf        | Rkmart        |
|--------------|-------------|--------------|---------------|
| 5.32%        | 1.02        | 7.02%        | 12.50%        |
| 5.32%        | 1.02        | 7.51%        | 13.00%        |
| 5.32%        | 1.02        | 8.00%        | 13.50%        |
| <b>5.32%</b> | <b>1.02</b> | <b>8.50%</b> | <b>14.01%</b> |
| 5.32%        | 1.02        | 8.98%        | 14.50%        |
| 5.32%        | 1.02        | 9.47%        | 15.00%        |
| 5.32%        | 1.02        | 9.96%        | 15.50%        |

We now perform the DCF Valuation in two different ways: the *Direct Free Cash Flows (FCF) Method* and the *Indirect FCF Method*. Both are shown below.

**DCF Analysis (Using Direct FCF Method)**

| Year                     | CFO   | CFI    | FCF  | Cost of |           |            | Discount Factor | DCF          |
|--------------------------|-------|--------|------|---------|-----------|------------|-----------------|--------------|
|                          |       |        |      | Capital | Dividends | Book Value |                 |              |
| 2000                     | 1,039 | -1,142 | -103 | 14.01%  | 0         | -103       |                 |              |
| 2001                     | 1,121 | -1,200 | -79  | 14.01%  | 0         | -79        | 1.140           | -70          |
| 2002                     | 1,208 | -1,200 | 8    | 14.01%  | 0         | 8          | 1.300           | 7            |
| 2003                     | 1,303 | -600   | 703  | 14.01%  | 0         | 703        | 1.482           | 475          |
| 2004                     | 1,406 | -660   | 746  | 14.01%  | 0         | 746        | 1.690           | 441          |
| 2005                     | 1,516 | -726   | 790  | 14.01%  | 0         | 790        | 1.926           | 410          |
| Perpetuity               |       |        |      |         |           |            |                 | 4,778        |
| Total                    |       |        |      |         |           |            |                 | 6,040        |
| <b>Total Price/Share</b> |       |        |      |         |           |            |                 | <b>12.12</b> |

The Direct Method of calculating free cash flows involved projecting cash flow from operations and investing and then discounting the resulting cash flows.

Assumptions for DCF Analysis using Direct FCF Method:

- Cash flow from operations (CFO) will grow by the increase in Kmart sales from 1996-2000, which is equal to 7.85%
- Cash flow from investing (CFI) will remain constant at \$1.2 billion from 2001-2002 due to continued restructuring
- Since restructuring is supposed to end by 2002, CFI is assumed to decrease by 50% from 2002-2003. From 2004-2005 CFI is assumed to increase by 10% per year over 2003 levels.
- Long term growth rate in perpetuity is 5%

**DCF Analysis (Using Indirect FCF Method)**

| Year                   | Depreciation and |              | Capital Expenditures | Change in NWC | FCF  | Cost of Capital | Discount Factor | DCF          |
|------------------------|------------------|--------------|----------------------|---------------|------|-----------------|-----------------|--------------|
|                        | EBIT*(1-t)       | Amortization |                      |               |      |                 |                 |              |
| 2000                   | -29              | 777          |                      | -259          |      |                 |                 |              |
| 2001                   | 171              | 779          | 239                  | 0             | 712  | 14.01%          | 1.140           | 624          |
| 2002                   | 322              | 795          | 244                  | 0             | 831  | 14.01%          | 1.300           | 639          |
| 2003                   | 360              | 816          | 326                  | 0             | 933  | 14.01%          | 1.482           | 629          |
| 2004                   | 415              | 837          | 334                  | 0             | 1081 | 14.01%          | 1.690           | 640          |
| 2005                   | 490              | 859          | 343                  | 0             | 1284 | 14.01%          | 1.926           | 667          |
| Perpetuity             |                  |              |                      |               |      |                 |                 | 7,768        |
| Total Enterprise Value |                  |              |                      |               |      |                 |                 | 10,967       |
| Debt                   |                  |              |                      |               |      |                 |                 | 3,914        |
| Total Equity Value     |                  |              |                      |               |      |                 |                 | 7,053        |
| <b>Total/Share</b>     |                  |              |                      |               |      |                 |                 | <b>14.15</b> |

The Indirect Method of calculating free cash flows involved using the projections of future earning and adjusting them for depreciation, capital expenditures, and change in net working capital.

Assumptions for DCF Analysis using Indirect FCF Method:

- EBIT, tax rate, depreciation, and change in capital expenditures are from the previous projection of future earnings analysis
- 2001-2005 change in net working capital is zero
- Long term growth rate in perpetuity is 5%

DCF Sensitivity with Varying Growth Rates and Cost of Capital Using Direct FCF Method

| Growth<br>Rate | Cost of Capital |        |        |               |        |        |        |
|----------------|-----------------|--------|--------|---------------|--------|--------|--------|
|                | 12.50%          | 13.00% | 13.50% | <b>14.01%</b> | 14.50% | 15.00% | 15.50% |
| 3.00%          | 14.99           | 11.49  | 10.83  | 10.23         | 9.70   | 9.21   | 8.76   |
| 4.00%          | 13.44           | 12.57  | 11.79  | 11.08         | 10.47  | 9.90   | 9.38   |
| <b>5.00%</b>   | 14.99           | 13.92  | 12.98  | <b>12.12</b>  | 11.39  | 10.72  | 10.11  |
| 6.00%          | 17.02           | 15.65  | 14.47  | 13.42         | 12.53  | 11.73  | 11.01  |
| 7.00%          | 19.79           | 17.97  | 16.43  | 15.09         | 13.98  | 12.98  | 12.11  |
| 8.00%          | 23.78           | 21.21  | 19.10  | 17.31         | 15.87  | 14.60  | 13.51  |

## Abnormal Earnings (EBO) Valuation

The value of a firm (or the equity in the firm) should be the sum of three components:

1. Original Invested Capital (the starting value of funds originally contributed by investors (equity holders));
2. Normal rate of return on Invested Capital (equivalent to the cost of capital); and
3. Abnormal return on Invested Capital (residual income above the normal expected rate of return).

The Abnormal Earnings method of valuation uses the above idea to express current equity value of the firm as a function of the book value of the firm's equity and anticipated *abnormal earnings*.

Using the earnings per share (EPS) estimates constructed in an earlier section of this report, the following valuation analysis was completed, resulting in a valuation of **\$6.57 per share**:

**Kmart Corporation**

Calculation of firm equity value using abnormal earnings:

Current stock price = \$ 6.10 per common share

Current book value = \$ 12.40 per common share

For 2001, M/B ratio is equal to approximately = 0.5

\*\*This extremely low M/B ratio predicts relatively large and negative abnormal earnings in the near future.

**Assume:** Risk-free rate,  $R_f$  = 5.32% (30-year Treasury constant maturity rate, 10/01)

Equity Beta = 1.0226 (regression analysis included in Appendix)

Market Risk Premium, MRP = 8.5% (based on Brealey-Myers textbook suggestion)

Therefore, cost of equity capital is equal to:

$r = 14.01\%$

**Earnings forecast:**

For the years 2001 through 2005, the earnings estimates below are based on the assumptions and calculations in the attached "E-assignment #6: Projection of Future Earnings." These numbers assume the recovery of the U.S. economy and the completion of the majority of Kmart's restructuring expenses.

For the years beyond 2005, assume that within ten years of today, abnormal earnings will reach zero. Kmart will, under this assumption, continue to improve their operations until they achieve a rate of return equal to the market expectations.

This requires a yearly increase in abnormal earnings of: \$ 0.23

|                      | 2000   | 2001E  | 2002E  | 2003E  | 2004E  | 2005E  | 2006E  | 2007E  | 2008E  | 2009E  | 2010E  | 2011E |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Earnings per share   | (0.49) | (0.10) | 0.19   | 0.25   | 0.34   | 0.48   |        |        |        |        |        |       |
| Dividends            | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |        |        |        |        |        |       |
| Book value of equity | 12.50  | 12.40  | 12.59  | 12.83  | 13.18  | 13.66  |        |        |        |        |        |       |
| Abnormal earnings    |        | (1.85) | (1.55) | (1.52) | (1.45) | (1.37) | (1.14) | (0.91) | (0.68) | (0.46) | (0.23) | 0.00  |
| Discount factor      |        |        | 0.88   | 0.77   | 0.67   | 0.59   | 0.52   | 0.46   | 0.40   | 0.35   | 0.31   | 0.27  |
| PV                   | 12.50  | 12.40  | (1.36) | (1.17) | (0.98) | (0.81) | (0.59) | (0.41) | (0.27) | (0.16) | (0.07) | 0.00  |

**Abnormal Earnings Valuation = \$ 6.57 per share**

A sensitivity analysis reveals a range of plausible valuations, as outlined below:

**Sensitivity Analysis with Varying Costs of Capital -- EBO Valuation**

| Cost of Capital | EBO                      |
|-----------------|--------------------------|
| 12.50%          | \$ 7.13 per share        |
| 13.00%          | \$ 6.94 per share        |
| 13.50%          | \$ 6.76 per share        |
| <b>14.01%</b>   | <b>\$ 6.57 per share</b> |
| 14.50%          | \$ 6.41 per share        |
| 15.00%          | \$ 6.24 per share        |
| 15.50%          | \$ 6.08 per share        |

**Sensitivity Analysis with Varying Perpetuity Assumption -- EBO Valuation**

| Assumption  | EBO                      |
|---|--------------------------|
| Flat level of abnormal earnings from 2005 onward        | \$ 2.31 per share        |
| <b>Abnormal earnings reach zero at 2011 (in 10 yrs)</b> | <b>\$ 6.57 per share</b> |
| Abnormal earnings reach zero in 15 yrs)                 | \$ 5.83 per share        |
| Abnormal earnings reach zero in 20 yrs)                 | \$ 4.88 per share        |

As seen above, the valuation calculation is very sensitive to the assumptions made regarding the perpetuity calculation. This leads us to conclude that the actual value of the firm may be somewhat lower than our calculated value of \$6.57.

## Quality of Earnings Analysis

Three accepted methods for detecting earnings management were examined for Kmart. This analysis checks Kmart's financial statements for *Aggressiveness in Booking Sales*, *Smoothing Volatility of Earnings Using Accruals*, and *Managing Reported Earnings per Share (EPS)*.

### Aggressiveness in Booking Sales

% Growth in Sales (Jan-96 through Jan-00) = 17.78%

% Growth in Accounts Receivable (A/R) (Jan-96 through Jan-00) → Not calculable (No A/R on the books)

The nature of Kmart's consumer base makes it logical that Accounts Receivable (A/R) are so small as to not even be included as a separate account on their Consolidated Balance Sheets. Most transactions are relatively small cash (or cash-equivalent, i.e. credit card) transactions—no substantial accrual of receivables is developed. Accrued A/R has actually decreased over the years (for instance, decreases of \$76M, \$62M, and \$103M for FY1998-2000, respectively). The A/R are most likely (though it is not clearly stated in the Financial Statements) tallied under "Other Current Assets," a value which is dwarfed by the "Merchandise Inventories" account (i.e., in FY2000, \$811M vs. \$6,412M). Potentially, it could be interpreted that by not breaking out A/R clearly, Kmart is disguising some potentially questionable revenue recognition activities—more specifically their policies for determining "anticipated returns." They do not clearly outline these policies in their FY2000 Annual Report.

### Smoothing Volatility of Earnings Using Accruals

This ratio is a test for evidence of smoothing volatility of earnings using accruals. The ratio is defined as:

$$\frac{\text{Volatility (Operating Income)}}{\text{Volatility (CFO)}} = \frac{\text{stdev(Op Inc over 5 years)} / \text{average(Op Inc over 5 years)}}{\text{stdev(CFO over 5 years)} / \text{average(CFO over 5 years)}}$$

| Company         | Volatility Ratio |
|-----------------|------------------|
| <b>Kmart</b>    | 0.863            |
| <b>Wal-Mart</b> | 0.751            |
| <b>Target</b>   | 0.784            |

Kmart appears to be smoothing earnings less than Wal-Mart and Target, since its ratio is greater than that of the other two, at 0.86. None of the three ratios, however, is substantially less than one, so it is not apparent that any of them are employing an alarming amount of earnings management.

### Managing Reported Earnings per Share (EPS)

Evidence of a company managing their reported earnings can be detected by comparing the change in net income to the change in basic earnings per share.

For Kmart this comparison translates to:

|   |                 |
|---|-----------------|
| NI for FY2000:  | -244            |
| NI for FY1999:  | 403             |
| <b>% Change in NI:</b>                                    | <b>-160.55%</b> |
|   |                 |
| EPS for FY 2000 (primary, excluding extraordinary items): | -0.48           |
| EPS for FY1999 (primary, excluding extraordinary items):  | 1.29            |
| <b>% Change in EPS:</b>                                   | <b>-137.21%</b> |

Since the change in net income from 1999-2000 is not radically different from the change in earnings per share, there is no reason to suspect from this data that EPS have been managed.

## Appendix

### Projections of Future Earnings: Assumptions

| Component          | 1996 | 1997 | 1998 | 1999 | 2000  | 2001E  | 2002E | 2003E | 2004E | 2005E |
|--------------------|------|------|------|------|-------|--------|-------|-------|-------|-------|
| Sales Growth       |      | 0.02 | 0.05 | 0.07 | 0.03  | 0.00   | 0.05  | 0.07  | 0.08  | 0.10  |
| COGS/Sales         | 0.76 | 0.76 | 0.76 | 0.76 | 0.77  | 0.76   | 0.76  | 0.76  | 0.76  | 0.76  |
| SG&A/Sales         | 0.20 | 0.19 | 0.19 | 0.18 | 0.19  | 0.20   | 0.20  | 0.20  | 0.20  | 0.20  |
| Depreciation/(PPE) | 0.06 | 0.07 | 0.06 | 0.07 | 0.07  | 0.06   | 0.06  | 0.06  | 0.06  | 0.06  |
| Other/Sales        | 0.00 | 0.00 | 0.00 | 0.00 | -0.02 | -0.010 | 0.00  | 0.00  | 0.00  | 0.00  |
| Interest/Debt      | 0.11 | 0.11 | 0.09 | 0.09 | 0.09  | 0.09   | 0.09  | 0.09  | 0.09  | 0.09  |
| Tax Rate           | 0.23 | 0.33 | 0.31 | 0.35 | 0.35  | 0.36   | 0.37  | 0.37  | 0.38  | 0.38  |

#### Historical Growth Rates from Multex Investor:

|                                 | Kmart  | Industry | Economy |
|---------------------------------|--------|----------|---------|
| Sales- 5-year rate              | 3.15%  | 14.40%   | 15.21%  |
| Capital Spending- 5-year rate   | 15.02% | 15.82%   | 12.57%  |
| Effective tax rate- 5-year rate | 27.79% | 38.35%   | 35.54%  |

### Regression to Calculate Kmart's Equity Beta

#### SUMMARY OUTPUT

##### Regression Statistics

|                   |             |
|-------------------|-------------|
| Multiple R        | 0.375608913 |
| R Square          | 0.141082055 |
| Adjusted R Square | 0.126524124 |
| Standard Error    | 13.05158289 |
| Observations      | 61          |

##### ANOVA

|            | df | SS          | MS          | F           | Significance F |
|------------|----|-------------|-------------|-------------|----------------|
| Regression | 1  | 1650.815301 | 1650.815301 | 9.691078547 | 0.002854709    |
| Residual   | 59 | 10050.28515 | 170.343816  |             |                |
| Total      | 60 | 11701.10045 |             |             |                |

|           | Coefficients       | Standard Error | t Stat             | P-value     | Lower 95%    | Upper 95%   | Lower 95.0%  | Upper 95.0% |
|-----------|--------------------|----------------|--------------------|-------------|--------------|-------------|--------------|-------------|
| Intercept | -0.41078809        | 1.677417511    | -0.244893169       | 0.807388908 | -3.767296307 | 2.945720127 | -3.767296307 | 2.945720127 |
| Beta      | <b>1.022605909</b> | 0.328490066    | <b>3.113049718</b> | 0.002854709 | 0.365298112  | 1.679913705 | 0.365298112  | 1.679913705 |

(Spreadsheet of stock return data used in regression available upon request)