U.S Auto Industry in Perspective

• U.S. Auto Related Employment - 6.6 million (4.9% of Total)
• U.S. Auto Related Compensation - $243 billion (5.6% of total)
• Zero Percent Financing Lowered U.S. Unemployment Rate 1 Percent
• 7.5 Jobs Created for Each Autoworker’s Job

U.S. Vehicle Sales Trend

Source: Michigan Department of Treasury
**U.S. Car & Light Truck Sales**

Cars = 8.655 million

Trucks = 8.522 million

Source: Automotive News, Market Data Book 2002

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**2001 Vehicle Market Segments**

- SUV: 22%
- Large Car: 3%
- Small Car: 11%
- Van: 9%
- Sporty: 3%
- Luxury: 6%
- Midsize Car: 27%
- Pickup: 19%

---

2
U. S. Automotive Outlook

- Ability to Buy
- Willingness to Buy
- Sales Trend
- Sales Outlook
- Production Outlook

Factors Affecting Auto Sales

Ability to Buy

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposable Income</td>
<td>Red</td>
<td>Red</td>
</tr>
<tr>
<td>Vehicle Prices</td>
<td>Green</td>
<td>Yellow</td>
</tr>
<tr>
<td>Interest Rates</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>Affordability</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>Household Debt</td>
<td>Red</td>
<td>Red</td>
</tr>
</tbody>
</table>
Michigan Real Disposable Income Growth

Forecast

Change in Per Capita Income

-3.0% 0.0% 3.0% 6.0%


Source: U.S. Bureau of Economic Analysis, RSQE August 2002

Sticker Prices Remain Strong

Thousands of Dollars


Import
$27,477 (-1.0%)

Domestic
$19,654 (4.0%)

Sources: AAMA & Automotive News, Market Data Book 2002
Real Vehicle Prices Lower
New Car and Truck CPI

Source: U.S. Bureau of Labor Statistics

Low Interest Rates Help Sales

Source: Comerica Bank Economics Department
**Vehicles More Affordable**

- Source: Comerica Bank Economics Department

**Consumer Debt Payments**

- Installment, Mortgage & Auto Leases

- Source: Michigan Department of Treasury

- 14.8% in 2001
Factors Affecting Auto Sales
Willingness to Buy

2002 | 2003
---|---
Consumer Attitudes | **Green** | **Yellow**
Unemployment Claims | **Yellow** | **Yellow**
Age of Vehicle | **Yellow** | **Yellow**
Oil Prices | **Yellow** | **Green**
Stock Market | **Red** | **Yellow**

Source: Michigan Department of Treasury

Consumer Car Buying Attitudes

Index: Good - Bad + 100

Source: University of Michigan, Survey Research Center, September 2002
Weekly Initial Unemployment Claims

Vehicle Age Declining

Source: U.S. Department of Labor

Source: Automotive News, 2002 Market Data Book
Oil Prices Rising Recently

Source: Monthly Energy Review

Stock Market Correction
Reduces Consumer Wealth

Source: Wall Street Journal
Sales Outlook

• Record incentives for now . . .
  . . . 0% Financing and Rebates
• Low interest rates . . .
  . . . (but record debt)
• How many cars can you buy?
  However
• Negative wealth effect
• Income and Job Uncertainty

U.S. Motor Vehicle Outlook
Car and Light Truck Sales

Forecast

Source: University of Michigan, RSQE, August 2002
### 2002 Forecast Accuracy

<table>
<thead>
<tr>
<th></th>
<th>Aug 2001 Forecast</th>
<th>Sept 2002 Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRI - WEFA</td>
<td>16.0</td>
<td>16.6</td>
</tr>
<tr>
<td>Univ. of Michigan</td>
<td>16.0</td>
<td>16.6</td>
</tr>
<tr>
<td>Blue Chip</td>
<td>16.1</td>
<td>16.4</td>
</tr>
</tbody>
</table>

### Light Vehicle Forecasts

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRI – WEFA</td>
<td>17.2</td>
<td>17.5</td>
</tr>
<tr>
<td>Univ. of Michigan</td>
<td>16.5</td>
<td>16.6</td>
</tr>
<tr>
<td>Blue Chip</td>
<td>16.4</td>
<td>N/A</td>
</tr>
</tbody>
</table>

- **DRI – WEFA**
  - September 17.2
  - September 17.5
- **Univ. of Michigan**
  - August 16.5
  - August 16.6
- **Blue Chip**
  - September 16.4
  - N/A
**Vehicle Market Segments Important Growth January through June 2002**

- Small: -6.3%
- Midsize: -6.9%
- Large: -15.0%
- Luxury: -0.4%
- Pickup: -2.1%
- Van: -4.5%
- SUV: 3.7%

Source: Wards Automotive Reports

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**Luxury Sales Outpace Other Sales Growth January through August 2002**

- All Vehicles: -0.5%
- Mercedes: 1.2%
- BMW: 7.3%
- Lexus: 8.4%
- Cadillac: 19.1%
- Infiniti: 21.1%
- Jaguar: 63.2%

Source: Automotive News
## Entry-Level Drives Luxury Sales

<table>
<thead>
<tr>
<th>Make</th>
<th>Best Seller(s)</th>
<th>% Sales Growth</th>
<th>Base Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audi</td>
<td>A4</td>
<td>+20.4%</td>
<td>$24,443</td>
</tr>
<tr>
<td>BMW</td>
<td>3-Series Sedan</td>
<td>+8.5%</td>
<td>$27,270</td>
</tr>
<tr>
<td>Cadillac</td>
<td>DeVille Sedan</td>
<td>-14.2%</td>
<td>$41,707</td>
</tr>
<tr>
<td>Jaguar</td>
<td>X-Type</td>
<td>New</td>
<td>$28,744</td>
</tr>
<tr>
<td>Lexus</td>
<td>ES 300</td>
<td>+86.8%</td>
<td>$30,353</td>
</tr>
<tr>
<td>Mercedes</td>
<td>C-Class Sedan</td>
<td>+46.6%</td>
<td>$24,315</td>
</tr>
</tbody>
</table>

## Near Luxury Vehicle Production

<table>
<thead>
<tr>
<th>Make</th>
<th>Model</th>
<th>Production Location</th>
<th>Sales 2002 YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMW</td>
<td>3-Series</td>
<td>S. Carolina and Germany</td>
<td>77,011</td>
</tr>
<tr>
<td>Cadillac</td>
<td>DeVille</td>
<td>Michigan</td>
<td>56,320</td>
</tr>
<tr>
<td>Jaguar</td>
<td>X-Type</td>
<td>England</td>
<td>24,650</td>
</tr>
<tr>
<td>Lexus</td>
<td>ES-300</td>
<td>Japan</td>
<td>49,166</td>
</tr>
<tr>
<td>Mercedes</td>
<td>C-Class</td>
<td>Germany</td>
<td>44,188</td>
</tr>
</tbody>
</table>
U.S. Auto Industry Trends

- Big 3 sales squeezed by competitors in all market segments
- Transplant capacity added in North America - light truck segment
- Production growing in the South (non-union areas)

The Big Squeeze

- High: Imported European Cars (8.0% of car sales)
- Middle: Big 3 Domestic Sales 63.2% (20,000 – $40,000)
- Low: Korean Cars (5.7% of total car market)
U.S. Motor Vehicle Production

- Capacity Utilization
- Production Costs
- Inventory Levels
- Worker Bonuses
- Increasing Transplant Production

2001 Production and Capacity
North America

<table>
<thead>
<tr>
<th></th>
<th>Millions of Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cars</td>
<td>7.130</td>
</tr>
<tr>
<td>Trucks</td>
<td>9.286</td>
</tr>
</tbody>
</table>

Source: DRI-WEFA, August 2002
2003 Capacity Utilization
Forecast for North America

Source: DRI-WEFA, August 2002

Stock-Sales Ratio

Source: University of Michigan, RSQE, August 2002
No Big 3 Profit Sharing Checks For 2002

U. S. Motor Vehicle Outlook

Summary

- Sales Stronger than Expected
- Price Incentives Driving Sales
- Jobs, Attitudes and Affordability Key to Sales
- Increased Competition from Foreign Nameplates

Source: Ward’s Automotive Reports
Motor Vehicle Outlook
FTA Revenue Estimating Conference
September 30, 2002

Mark Haas, Director
Andrew Lockwood, Economist
Office of Revenue and Tax Analysis
Department of Treasury
State of Michigan