The Automotive Industry, 2008, 2009 and looking forward
Take a Deep Breath . . .
Happy, Happy . . .
The Future
Is Manufacturing Relevant?

Source: U.S. Department of Transportation, Bureau of Transportation Statistics
2008 Average Annual Pay for U.S. Industrial Sectors

- Motor Vehicle: $79,134
- Motor Vehicle Parts: $52,168
- Manf.: $54,392
- Total Private Industries: $57,309
- Machinery Manf.: $45,368

Source: BLS
2008 Average Hourly Earnings Per Production Worker for U.S. Industrial Sectors

Motor Vehicles and Parts: $22.2
Durable Goods: $18.9
Manufacturing: $18.0
Total Private Industries: $18.4

Source: BLS
2006 Value Added Per Employee

Source: 2006 Annual survey of Manufacturers; US Census Bureau
Total Vehicle Registrations by Region: 2007 in Millions

<table>
<thead>
<tr>
<th>Region</th>
<th>Registrations (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pacific</td>
<td>17.7</td>
</tr>
<tr>
<td>Western Europe</td>
<td>235.80</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>82.80</td>
</tr>
<tr>
<td>Middle East</td>
<td>27.80</td>
</tr>
<tr>
<td>Asia (Far East)</td>
<td>183.70</td>
</tr>
<tr>
<td>North America</td>
<td>293.20</td>
</tr>
<tr>
<td>Central and South Amer.</td>
<td>45.70</td>
</tr>
<tr>
<td>Caribbean</td>
<td>13.30</td>
</tr>
<tr>
<td>Africa</td>
<td>21.30</td>
</tr>
</tbody>
</table>

World: 890.8

2007 Total U.S. Vehicle Exports: In Billions of Dollars

- Total: $45.4 billion
- Total Buses: $0.9 billion
- Total Trucks: $10.5 billion
- Total Cars: $34.0 billion

2008 Vehicle Sales in Major Countries:
In Millions

Source: Ward’s Automotive Yearbook, 2009
*Source: Marklines
2008 Vehicle Production in Major Countries:
In Millions

Source: Ward’s Automotive Yearbook, 2009
*Source: Marklines

Source: Ward’s Automotive Yearbook, 2009
2007 Private R&D Spending by Industry: In Millions

- Pharmaceuticals: $47,624
- Software / Electronics: $18,975
- Automotive: $16,034
- Instrumentation: $12,140
- Communications: $11,435
- Computers: $6,869

Source: NSF, Research and Development in Industry 2007, Table 1
Global Sales
2009 (estimate)

1. Toyota Motor  6.8M
2. Volkswagen    5.7M
3-4. Ford       5.2M
3-4. General Motors  5.2M
5. Renault-Nissan 4.6M
6. Hyundai-Kia    4.3M
7-8. Honda Motors 2.9M
7-8. PSA Peugeot Citroen 2.9M
9. Fiat-Chrysler  2.8M
10. Suzuki       2.1M

Source: CSM Worldwide; Ford Figures include Volvo and Mazda
Global Sales 2015 (estimate)

1. Toyota Motor: 11.4M
2. Volkswagen: 7.9M
3. Ford: 7.7M
4. Renault-Nissan: 7.4M
5. General Motors: 6.2M
6. Hyundai-Kia: 6.0M
7. Honda Motors: 5.4M
8. PSA Peugeot Citroen: 3.4M
9. Fiat-Chrysler: 3.2M
9.-10. Suzuki: 2.5M

Source: CSM Worldwide; Ford Figures include Volvo and Mazda
Defining the Automotive Industry
Direct Employment and Compensation

OEMs directly employed 313,000 people
  – Includes manufacturing, research and development, headquarters, and all other operational activities
  – Directly reported by OEMs at end of 2008

686,000 people were employed in the automotive parts sector.
  – Includes a percentage employment from rubber, plastics, batteries, and other non-automotive sectors

737,000 people were employed in the dealer network selling and servicing new vehicles.
An estimated:

- **8 million private sector jobs**, 
- more than **$500 billion** in annual compensation, and
- nearly **$70 billion in personal tax revenues**

are generated by the automotive industry’s **total U.S. automotive operations**, including new vehicle development and production, parts manufacturing, along with the contribution from the sales and service of new vehicles.
U.S. Annual Unemployment Rate: 1998 to 2008

Source: BLS
Automotive Industry Total Employment

Total Automotive Employment by State
- Less than 20,000
- 20,000 to 70,000
- 70,000 to 150,000
- 150,000 to 300,000
- More than 300,000

Note: Includes direct and estimated intermediate jobs

Source: US Census Bureau, County Business Patterns
5321: Automotive Equipment Rental and Leasing Employment 2001-2007

Source: US Census Bureau, County Business Patterns

Source: US Census Bureau, County Business Patterns

Source: US Census Bureau, County Business Patterns
4411: Automobile Dealers
Employment 2001-2007

Source: US Census Bureau, County Business Patterns

Source: US Census Bureau, County Business Patterns
44112: Used Car Dealers 2001-2007

Source: US Census Bureau, County Business Patterns
4413 : Automotive Parts, Accessories, and Tire Stores
2001-2007

Source: US Census Bureau, County Business Patterns

Source: US Census Bureau, County Business Patterns

Source: US Census Bureau, County Business Patterns
Housing Crunches,
Credit Crunches,
and the tanking of auto sales
U.S. Home Sales in Millions

Source: National Association of Realtors
Current Homeowners Are Stuck: Medium Price of New and Existing Homes 1990-2008*

Price of Home in Thousands


*in 2008 Dollars

Reduced Building will help, but Surplus still Exists: Housing Starts 1990-2010

Source: US Census Bureau, New Privately Owned Housing Units Started www.census.gov/const/startsan.pdf
Burden Level on Homeowners: Housing Costs as a Percent of Income

Source: Harvard University Joint Center for Housing Studies, based on U.S. Census Bureau data from the American Community Survey
Burden Level on Renters: Housing Costs as a Percent of Income

Source: Harvard University Joint Center for Housing Studies, based on U.S. Census Bureau data from the American Community Survey
YOY %Δ of Consumer Credit: 2004-2009*

Source: Federal Reserve

*2009 Q1
Consumer Motor Vehicle Loans and Leases and Consumer Credit: 2004-2008

Source: Federal Reserve
YOY %Δ of Consumer Auto Loans and Leases: 2004-2009*

*Source: Federal Reserve

*2009Q1
U.S. Light Vehicle Sales by Month: June 2008 through June 2009

Source: Automotive News Data Center
U.S. Light Vehicle Sales
Monthly Percentage Change*:
April 2008 through June 2009

*Percent change is a comparison of the given month’s sales volume to its corresponding value in the previous year.

Source: Automotive News Data Center
Total U.S. Employment: Motor Vehicles and Equipment

Source: Ward’s Automotive Facts and Figures, 2009
Off A Cliff!

Total U.S. Sales of Light Vehicles:
1992 - 2009

[Bar chart showing total U.S. sales of light vehicles from 1992 to 2010, with categories for Car, MV/CSU/CUV, and Other Truck/Van.

Source: Ward's Automotive Reports]
However, Will It Come Back . . .?
U.S. Light Vehicle Sales Forecast

Unit in Millions

May 26 2009
CAR Forecast
U.S. GDP Growth Rate and Light Vehicle Sales Growth Rate
1Q 01’ thru 2Q 09’
YOY % Change

[Graph showing GDP and Sales growth rates from 2001q1 to 2009q1]
Segment Breakdown - U.S. LV Sales
YOY % Change
YTD Through June: 2009 vs. 2008

Source: Automotive News
Percentage Change in Sales of Light Vehicles Per OEM:
YTD Through June 2009 vs. 2008

Source: Automotive News
N.A. Light Vehicle Production Percent Change
YTD Through April: 2009 vs. 2008

<table>
<thead>
<tr>
<th>Company</th>
<th>2009 Production</th>
<th>2008 Production</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>2,502,800</td>
<td>-2,388,351</td>
<td>-48.8</td>
</tr>
<tr>
<td>Hyundai</td>
<td>54,449</td>
<td>-35,531</td>
<td>-39.5</td>
</tr>
<tr>
<td>Nissan</td>
<td>177,767</td>
<td>-183,518</td>
<td>-50.7</td>
</tr>
<tr>
<td>Honda</td>
<td>304,169</td>
<td>-213,326</td>
<td>-51.4</td>
</tr>
<tr>
<td>Toyota</td>
<td>280,247</td>
<td>-269,699</td>
<td>-51.4</td>
</tr>
<tr>
<td>Chrysler</td>
<td>322,423</td>
<td>-431,717</td>
<td>-47.2</td>
</tr>
<tr>
<td>Ford</td>
<td>492,144</td>
<td>-468,245</td>
<td>-48.7</td>
</tr>
<tr>
<td>GM</td>
<td>585,835</td>
<td>-563,909</td>
<td>-49.0</td>
</tr>
</tbody>
</table>

Source: Automotive News
N.A. Light Vehicle Production Percent Change
YTD Through June: 2009 vs. 2008

Source: Automotive News
The Darkest Part of the Tunnel…
Motor Vehicle & Parts Manufacturing Employment
1999 – June 2009

Source: BLS, U.S. DOL, April 2009

*U.S. through May 2009
GM, Ford, Chrysler, Delphi & ACH
U.S. and Canadian Plant Shutdowns
Announced and Executed, 2005-2011

GM, Ford & Chrysler Shutdowns: 55 Plants
111,398 Hourly; plus
49,176 Salaried

Delphi Job Cuts: 27 Plants
18,377 in Plant Shutdowns and Selloffs

ACH Job Cuts: 14 Plants
21,400 in Plant Shutdowns and Selloffs

Shutdown Total = 112,612
Line Trimming, Sold, & Buyouts = 40,900
Salaried = 46,839
Total Impact = 200,351 Jobs
More Shutdowns and Employment Reductions

- Announced 12 to close, 4 put on “Standby” idle at GM – Assembly, Stamping, Powertrain (some already idle, e.g. Janesville Assembly) by 2010
- 8 at Chrysler (2 already idle)
- Thousands of dealer franchises to be closed 2,400 at GM eventually and 1,300 now, and 786 at Chrysler right away.
- Pontiac and Saturn gone at end of year.
- GM to cut 21,000 U.S. hourly jobs by 2011, and Chrysler about 3,500.
- Ford may slow its restructuring or . . .
Help! Bankruptcy!
Major Supplier Bankruptcies

2001
- Valeo
- Harvard Industries
- Aetna Industries
- Exide Tech.
- DCT
- GenTek
- Talon Automotive
- Mexican Industries
- A.G. Simpson
- Hayes Lemmerz
- Federal Mogul

2002
- Veltri Metal
- Citation
- Intermet
- Oxford Automotive
- Insilco
- Venture Industries
- Atchison Casting
- Precision Tool & Die

2003
- Dana
- Dura
- Remy
- Plastech
- PPI

2004
- Contech
- Checker
- Foamex
- Noble
- Metaldyne
- Hayes-Lemmerz
- Visteon
- Lear

2005
- Tower
- Eagle Picher
- Meridian
- Collins & Aikman
- Amcast Industrial
- Delphi

2006
- Liquidated

2007
- In Progress

2008
- Emerged

2009

Source: Wall Street Journal, BankruptcyData.com, Center for Automotive Research
* The latest filing is listed in multiple bankruptcy cases.
Why Did GM and Chrysler Go Bankrupt?

- No end in sight of the auto sales slump
- N.A. Revenues down by 50%
- GM $74B in debt - $174B in liabilities
- Not enough cash to operate (gone on 1/1/09)
- Couldn’t reduce dealers outside of court (-3,000+)
- UAW wouldn’t deal without court threat (21 plant shutdowns)
- Government said they had to . . . (to get money)
- Taxpayers funding the deal (only source of DIP)
- Bondholders and stockholders were wiped out
- They will be smaller . . . “Bottom-Up” crash for suppliers is possible
Chrysler Post Bankruptcy Will be Tough

U.S. Government was only bidder and DIP financier – sells to Fiat (20% - 35% - 49%), UAW VEBA (68%), U.S. Govt. (10%), and Canadian Govt. (2%). 4,3,1, and 1 BOD seats. But Fiat controls.

Over $12.9B Of U.S./Canadian Govt. Support during and after bankruptcy. Fiat promises one U.S. and 1 Canadian plant ---- and 1 Mexican. 6 cars?

789 cancelled dealers will close. Eight manufacturing plants, 3,500 more workers to be bought out. However, no new Fiat models for up to two years – can Chrysler Group survive? U.S. market share could fall to 5%.

Fiat will sell Chrysler product (Jeeps) in Europe and Latin America and maybe China.
GM Company has many new advantages

- 2,600 storefronts to close . . . (1,100 now, 1,000 to come and 500 Saturn/Saab/Hummer), 14 US plants to close or be idled, 21,000 hourly jobs, 6,000 more salaried job cuts in U.S.
- $74.4B in debt to be reduced to $17B: $6.7B to US Treasury, $1.3B to Can. Govt., $2.5B to UAW-VEBA, and $6.8B of “other” debt. Also, $9B of preferred stock to governments and UAW-VEBA.
- Governments get 72.5% (60.8% U.S.), UAW 17.5%, and bondholders 10% (eventually 25%) of new equity. Plus warrants. Government may deal more with bondholders with assistance of judge in bankruptcy. Secured creditors ($6B) are fully re-paid.
- GM will remain a private firm for 12-18 months.
- Four core brands in North America: Chevrolet, Cadillac, Buick, and GMC. GM says that market share will vary between 18.4 to 18.9% beyond 2009. May actually fall to 15%
- Government funding supporting bankruptcy and beyond is $33.0B. Funding must be adequate or supplier sector will crash. GMAC must fund dealer floor-plans or fire sales by dealers and banks. Dealer consolidation delayed thru end of 2010. GM should have cash pile of $15B by January.
- International operations outside of Europe are supposed to be unaffected.
- Reduction in fixed costs in N.A. of $3,000 per unit thru 2011, then $5,000 per unit thereafter. Breakeven now of 11.5 mil. U.S. SAAR.
- Must increase revenue per unit by $2-4,000.
**New GM Capital Structure**

- Critical to GM’s reinvention is a significantly healthier balance sheet
  - On March 31, 2009, GM reported consolidated debt of $54.4 billion along with approximately a $20 billion UAW VEBA obligation.
- Other than $8B of debt, all other amounts owed to UST and Canadian and Ontario governments will be exchanged for common and preferred equity

<table>
<thead>
<tr>
<th>($ Billions)</th>
<th>Debt</th>
<th>9% Perp. Pref. Equity</th>
<th>Common Stock</th>
<th>Warrants</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Treasury</td>
<td>$ 6.7</td>
<td>$ 2.1</td>
<td>60.8%</td>
<td></td>
</tr>
<tr>
<td>Canadian &amp; Ontario Governments</td>
<td>1.3</td>
<td>0.4</td>
<td>11.7%</td>
<td></td>
</tr>
<tr>
<td>New VEBA</td>
<td>2.5</td>
<td>6.5</td>
<td>17.5%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Unsecured Bondholders, Other Creditors</td>
<td>-</td>
<td>-</td>
<td>10.0%</td>
<td>15.0%</td>
</tr>
<tr>
<td>Other Debt</td>
<td>~6.8</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>~$17.3</td>
<td>$9.0</td>
<td>100%</td>
<td>17.5%</td>
</tr>
</tbody>
</table>
Viability After Reorganization

- Overall economic conditions
- Functioning financial sector providing credit to automakers, suppliers and consumers
- Stability in the supplier sector
- Speed at which companies are able to bring new product plans to market
- Final response of consumers to Chrysler and General Motors’ use of the bankruptcy process
The Good News . . .

• GM and Chrysler still exist and have emerged from Bankruptcy – quickly
• GM will cut fixed costs by up to $5,000 per vehicle
• GM has an adequate pipeline of new product starting next year
• The U.S. Government is committed to the long-term success of these two companies.
• The Government is re-examining its support for suppliers
• The recession can’t last forever. . .
• Earnings loss far lower than Toyota and Nissan in Q1
• Ford reduced its operating loss to $424 Million in Q2
• April/May U.S. sales and market share higher than Toyota’s
• Posted a net profit of $2.3 Billion due to debt restructuring
• New labor agreement – and a match coming
• Sold 300 million shares to raise case
• 2010-2011 model launches will set a record
• Sales and production are rising, profitability soon?
And the Result?

• GM and Chrysler will be much, much smaller . . .
• U.S. GM with 15-16% share, and 60,000 employment.
• U.S. Chrysler with 7-8% share and 30,000 employment.
• But Ford may be bigger with 15-17% share. And GM/Chrysler will exist for now.
• U.S./Canada industry and market will resemble Europe – many competitors with government control of market, products, and ownership.
• Government participation now apparent in other regions – should result in national champions, and the end of global competitors and competition. Will Policy replace competition?
Yet, who wants to be in this market?

Well........,

- The Germans are coming (VW)
- The Italians are coming (Fiat)
- The Indians are coming (Tata)
- The Chinese are coming (to buy Hummer and Volvo)
- The GM small car is coming (Lake Orion)
- Roger Penske is coming (to rescue Saturn)
- Many other automakers are selling or will: Hyundai/Kia, Mahindra, Opel (Magna), and many more . . .
N.A. Production
2001 – 2015

Source: CSM Worldwide, CAR
N.A. Production Capacity
2001 – 2015

*Adj. D3 Capacity includes only the Windsor and Toledo Chrysler Facilities

Source: CSM Worldwide, CAR
Conclusions

• U.S. market will mostly recover
• GM and Chrysler market will shrink by 1/3 to 1/2
• Ford will gain
• Toyota and Honda are solid
• Many new automakers in N. America soon
• Supplier sector still in danger
QUESTIONS??

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