The Coming Cost Crunch: UAW Contracts, Capital, & the EV Transition

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Agenda

• Impact of New UAW Contract
• Economics of BEVs
• Other Industry Challenges
# Summary of UAW Contract Concessions

## Standard Terms
- ~25% General Wage Increase Over Contract (~6% Last Contract)
- In-Progression Grow-In (3 Yrs vs. 8 Yrs)
- Temps Convert to In-Progression After 9 Months
- 401K Contribution 10% (6.4% prior)
- +9% Increase in Pension Payment for Eligible Retiree
- Profit Share Retained
- $5K signing bonus ($9K-11K prior)
- No Lump Sums

## 2007 Contract Provisions Returned
- Cost of Living Adjustment (COLA) Returned
- Retirees: $2.5K in Lump Sum Payments

## Other Concessions
- GM & STLA Unionize Battery Plants
- Right to Strike Over Plant Closing
- STLA Reopens Belvidere Plant
**Cost of UAW Concessions**

- Estimate Average Wage Rises from ~$40/hr to ~$49/hr by 2027
- Implies Annual Salary Rises from ~$83K to ~$102K
- All-In Cost Rises from ~$58/hr to ~$73/hr
- Transplant All-In Wages ~$52-55/hr in 2023 (Now Up ~10%)

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**Estimated All-In Wage Per Hour at Detroit 3 Based on UAW Highlighters**

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<tr>
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<tbody>
<tr>
<td>Skilled</td>
<td>$36.96</td>
<td>$42.65</td>
<td>$50.57</td>
<td>$36.85</td>
<td>$42.52</td>
<td>$49.43</td>
<td>$37.05</td>
<td>$42.91</td>
<td>$50.87</td>
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<td>Legacy</td>
<td>$32.05</td>
<td>$35.70</td>
<td>$42.60</td>
<td>$32.32</td>
<td>$36.00</td>
<td>$42.95</td>
<td>$31.77</td>
<td>$35.38</td>
<td>$42.24</td>
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<tr>
<td>In Progression</td>
<td>$30.87</td>
<td>$32.02</td>
<td>$40.82</td>
<td>$31.23</td>
<td>$32.29</td>
<td>$41.17</td>
<td>$31.37</td>
<td>$31.74</td>
<td>$40.46</td>
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<tr>
<td>Temp</td>
<td>$16.67</td>
<td>$21.00</td>
<td>$21.00</td>
<td>$16.67</td>
<td>$21.00</td>
<td>$21.00</td>
<td>$17.53</td>
<td>$21.00</td>
<td>$21.00</td>
</tr>
<tr>
<td><strong>Average Base Wage</strong></td>
<td><strong>$31.56</strong></td>
<td><strong>$34.55</strong></td>
<td><strong>$42.30</strong></td>
<td><strong>$31.70</strong></td>
<td><strong>$35.03</strong></td>
<td><strong>$42.78</strong></td>
<td><strong>$30.37</strong></td>
<td><strong>$33.75</strong></td>
<td><strong>$41.71</strong></td>
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<tr>
<td>Overtime</td>
<td>$0.47</td>
<td>$0.52</td>
<td>$0.63</td>
<td>$0.48</td>
<td>$0.53</td>
<td>$0.64</td>
<td>$0.46</td>
<td>$0.51</td>
<td>$0.63</td>
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<tr>
<td>Profit Share</td>
<td>$4.41</td>
<td>$4.41</td>
<td>$4.41</td>
<td>$6.13</td>
<td>$6.13</td>
<td>$6.13</td>
<td>$7.10</td>
<td>$7.10</td>
<td>$7.10</td>
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<tr>
<td>Inflation Bonus</td>
<td>$0.72</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.72</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.72</td>
<td>$0.00</td>
<td>$0.00</td>
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<tr>
<td>Lump Bonuses Pro-rated</td>
<td>$0.66</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.72</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.72</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Signing Bonus Prorated</td>
<td>$1.08</td>
<td>$0.60</td>
<td>$0.60</td>
<td>$1.32</td>
<td>$0.60</td>
<td>$0.60</td>
<td>$1.08</td>
<td>$0.60</td>
<td>$0.60</td>
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<tr>
<td><strong>Total Payroll</strong></td>
<td><strong>$38.91</strong></td>
<td><strong>$40.08</strong></td>
<td><strong>$47.95</strong></td>
<td><strong>$41.07</strong></td>
<td><strong>$42.28</strong></td>
<td><strong>$50.15</strong></td>
<td><strong>$40.45</strong></td>
<td><strong>$41.96</strong></td>
<td><strong>$50.03</strong></td>
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<td>Active Healthcare</td>
<td>$10.12</td>
<td>$10.73</td>
<td>$12.78</td>
<td>$10.12</td>
<td>$10.73</td>
<td>$12.78</td>
<td>$7.09</td>
<td>$7.65</td>
<td>$9.64</td>
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<tr>
<td>Pension</td>
<td>$3.49</td>
<td>$5.01</td>
<td>$5.79</td>
<td>$3.63</td>
<td>$5.23</td>
<td>$6.02</td>
<td>$3.59</td>
<td>$5.20</td>
<td>$6.00</td>
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<tr>
<td>Statutory</td>
<td>$2.72</td>
<td>$2.81</td>
<td>$3.36</td>
<td>$2.87</td>
<td>$2.96</td>
<td>$3.51</td>
<td>$2.83</td>
<td>$2.94</td>
<td>$3.50</td>
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<tr>
<td>Other Benefit</td>
<td>$2.00</td>
<td>$2.04</td>
<td>$2.16</td>
<td>$2.00</td>
<td>$2.04</td>
<td>$2.16</td>
<td>$2.00</td>
<td>$2.04</td>
<td>$2.16</td>
</tr>
<tr>
<td><strong>All-In Wage</strong></td>
<td><strong>$57.25</strong></td>
<td><strong>$60.66</strong></td>
<td><strong>$72.04</strong></td>
<td><strong>$59.70</strong></td>
<td><strong>$63.24</strong></td>
<td><strong>$74.62</strong></td>
<td><strong>$55.95</strong></td>
<td><strong>$59.78</strong></td>
<td><strong>$71.34</strong></td>
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<tr>
<td>Annual Wage</td>
<td>$119,071</td>
<td>$126,182</td>
<td>$149,846</td>
<td>$124,166</td>
<td>$131,540</td>
<td>$155,212</td>
<td>$116,382</td>
<td>$124,342</td>
<td>$148,397</td>
</tr>
<tr>
<td>Per Hour Worked</td>
<td>$66.15</td>
<td>$70.10</td>
<td>$83.25</td>
<td>$68.98</td>
<td>$73.08</td>
<td>$86.23</td>
<td>$64.66</td>
<td>$69.08</td>
<td>$82.44</td>
</tr>
</tbody>
</table>

Source: Center for Automotive Research; Company Reports; Wells Fargo Securities, LLC estimates
What Will UAW Contract Cost?

- Estimate Contract Adds **$1.3-$1.8B by 2027**
- Labor Cost Gap ~$550/Vehicle Currently vs. Average EBIT Per Vehicle of ~$4,000
- Added Cost from UAW Labor Costs at Battery Plants
- Right to Strike Over Plant Closing Risk

### Estimated Impact of Contracts on Detroit 3

<table>
<thead>
<tr>
<th></th>
<th>Ford 2024E</th>
<th>Ford 2027E</th>
<th>GM 2024E</th>
<th>GM 2027E</th>
<th>STLA 2024E</th>
<th>STLA 2027E</th>
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<tbody>
<tr>
<td>Employees</td>
<td>57,000</td>
<td>46,000</td>
<td>40,500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Est. Annual Wage Increase</td>
<td>$5,848</td>
<td>$30,774</td>
<td>$7,499</td>
<td>$31,171</td>
<td>$8,084</td>
<td>$32,139</td>
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<tr>
<td>Labor Cost in $M</td>
<td>$333</td>
<td>$1,754</td>
<td>$345</td>
<td>$1,434</td>
<td>$327</td>
<td>$1,302</td>
</tr>
<tr>
<td>Est. Retirees</td>
<td>138,000</td>
<td>380,000</td>
<td>92,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Est. Lump Sum</td>
<td>$1,000</td>
<td>$500</td>
<td>$1,000</td>
<td>$500</td>
<td>$1,000</td>
<td>$500</td>
</tr>
<tr>
<td>Retiree Cost $M</td>
<td>$138</td>
<td>$69</td>
<td>$380</td>
<td>$190</td>
<td>$92</td>
<td>$46</td>
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<tr>
<td><strong>Total Cost</strong></td>
<td><strong>$471</strong></td>
<td><strong>$1,823</strong></td>
<td><strong>$725</strong></td>
<td><strong>$1,624</strong></td>
<td><strong>$419</strong></td>
<td><strong>$1,348</strong></td>
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</table>

Source: Company Reports; Wells Fargo Securities, LLC estimates
BEV Teardown Series: What We Tore Down

**Tesla Model Y** - Source: A2Mac1; Wells Fargo Securities, LLC

**Hyundai Ioniq 5** - Source: A2Mac1; Wells Fargo Securities, LLC

**XPeng P7** - Source: A2Mac1; Wells Fargo Securities, LLC

**BYD Han** - Source: A2Mac1; Wells Fargo Securities, LLC

**Ford Lightning** - Source: A2Mac1; Wells Fargo Securities, LLC

**Rivian R1T** - Source: A2Mac1; Wells Fargo Securities, LLC
Battery Raw Mat Risks

- Critical BEV raw material prices rose dramatically in 2022, severely impacting BEV economics (Nickel & Lithium)
- Current Pricing Back to 2021 Levels
- Long Term Raw Mat Cost Risk Remains
BEV-ICE Parity Still in the Future

- Pack & E-Powertrain Also Add Cost
- All-In NMC-based BEV powertrain is ~$6.6k more costly than ICE
- Average global OEM profit ~$4k per vehicle.
- We estimate cost parity will not occur until after 2030
Pickup Profits At Risk

- **BEV Economics Worse for Pickups**
- **Full-Size Pickups Account for Most of GM & Ford Profits**
- **Pickups are ~3% of Global Unit Sales, But are ~14% of Global Profits & ~41% of N America Profits**

### Rivian R1T vs. Ford Lightning BEV Powertrain Cost

<table>
<thead>
<tr>
<th></th>
<th>Rivian R1T</th>
<th>Lightning Extended</th>
<th>ICE F-150</th>
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<tr>
<td>Cells</td>
<td>$19,460</td>
<td>$17,180</td>
<td>$8,000</td>
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<tr>
<td>BMS</td>
<td>$4,660</td>
<td></td>
<td>$6,385</td>
</tr>
<tr>
<td>Other</td>
<td>$3,540</td>
<td>$2,950</td>
<td>$3,600</td>
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</table>

### Full-Size Pickups Estimated Percent of Auto Profits

<table>
<thead>
<tr>
<th></th>
<th>GM</th>
<th>Ford</th>
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</thead>
<tbody>
<tr>
<td>N American Profit</td>
<td>76%</td>
<td>72%</td>
</tr>
<tr>
<td>Global Auto Profit</td>
<td>70%</td>
<td>69%</td>
</tr>
</tbody>
</table>

Source: A2Mac1; Wells Fargo Securities, LLC

Source: Company websites; Wells Fargo Securities, LLC
US Regulations Force Sales of BEVs

- EPA’s Targets to 2026 Imply 9-12% BEV
- Detroit 3 at -4% Currently
- EPA 2032 Proposal Implies 67% BEV by 2032

Source: Wards; EPA; NHTSA; Wells Fargo Securities, LLC estimates

Which Technologies Can Help Automakers Reach 2026 Emissions Targets?

Source: Company Reports; Wells Fargo Securities, LLC estimates

Est. EV & Hybrid Mix Needed for 2026 EPA Targets

Source: Wards; EPA; NHTSA; Wells Fargo Securities, LLC estimates

US Fuel Economy Actual & Targets for Light Trucks

Source: Wards; EPA; NHTSA; Wells Fargo Securities, LLC estimates
Challenges of Sub $25K BEV

- Will Consumers Want Small Car?
- Are ICE Cars Even Profitable?
- Weight Works Against BEVs
  - Large Car Means Large Battery

**Estimated Contribution Margin by Segment**

Source: Company reports; Wells Fargo Securities, LLC estimates

**Est. Avg ICE $ Operating Profit Per Vehicle**

Source: Company reports; Wells Fargo Securities, LLC estimates
Other Challenges for Automakers in 2024

- **Pricing Pressure**
- **Excess Capacity**
  - >4M units of Added Capacity in N America by 2027
  - Europe Flat by Sales in Decline & Imports Rising
- **Pickup Demand**
  - Housing Starts Down
  - Inventory Rising with ~Flat Sales

### N America Capacity Utilization

<table>
<thead>
<tr>
<th>Year</th>
<th>Base 2017</th>
<th>Closed</th>
<th>Add Trad.</th>
<th>Add TSLA</th>
<th>Add EV</th>
<th>Shifts 2023 Ending</th>
<th>Add Trad.</th>
<th>Add TSLA</th>
<th>Add EV</th>
<th>Closed 2027 Ending</th>
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<tbody>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td>24.5</td>
<td>0.4</td>
<td></td>
<td>0.4</td>
<td>0.4</td>
<td>0.3</td>
<td>0.3</td>
<td>0.9</td>
</tr>
<tr>
<td>2027</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Wards; Wells Fargo Securities, LLC estimates

### US New Vehicle Average Transaction Prices

- 2015: $33,029
- 2016: $34,279
- 2017: $35,396
- 2018: $35,755
- 2019: $37,519
- 2020: $38,961
- 2021: $41,804
- 2022: $46,334
- 2023: $47,785
- 2024: $49,612
- 2025: $44,437

Source: Bloomberg; Wells Fargo Securities, LLC estimates

### US FSPU Sales vs. US Housing Starts

Source: Wards; Wells Fargo Securities, LLC estimates
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