Introductions
The American Academy of Actuaries is a 19,500-member professional association whose mission is to serve the public and the U.S. actuarial profession. For more than 50 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.
Today’s Presenters

- Linda K. Stone, MAAA, FSA
  Senior Pension Fellow

- Joe Hicks, MAAA, FCA, EA
  Member, Multiemployer Pension Plans Committee

- Dave Pazamickas, MAAA, ASA, EA
  Member, Multiemployer Pension Plans Committee

- Jason Russell, MAAA, FSA, EA
  Chairperson, Multiemployer Pension Plans Committee
A Three-Part Series

- **Session 1: Background and Current State**  
  Monday, July 15, 2019 | Noon to 1 p.m.  
  2261 Rayburn House Office Building

- **Session 2: Possible Approaches for Addressing Failing Plans**  
  Monday, July 22, 2019 | Noon to 1 p.m.  
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- **Session 3: Strengthening the System for the Future**  
  Friday, August 2, 2019 | Noon to 1 p.m.  
  485 Russell Senate Office Building
Topics for Discussion

- The Basics
- Multiemployer Landscape
- Pension Benefit Guaranty Corporation (PBGC)
- Multiemployer Funding Rules
- Withdrawal Liability
- Actuarial Assumptions
- How We Got Here
- Developments Since MPRA
- Where We Go from Here
The Basics
Employer Sponsored Retirement Systems

- **Defined Benefit**
  - Traditional ($ per month, % of contributions)
  - Hybrid (Cash Balance, Variable/Adjustable Benefit)

- **Defined Contribution**
  - Profit Sharing
  - 401(k)

Private Sector / Multiemployer / Government Sponsored / Church Sponsored
Multiemployer Defined Benefit Basics

- Plans typically organized by industry
- Contributions collectively bargained
- Benefit levels set by Trustees
  - Trustees equally represented by labor and management
- Multiemployer system principles
  - Aligned with industry workforce patterns
  - Conducive to collective bargaining process
  - Aligned with employee needs
Basic Plan Structure

- Same geography, trade, union, industry
- Benefits earned at any contributing employer
- Employers share risk
- Union represents participants / collectively bargained benefits
- Trustees oversee Plan
- Not multiple employer plan
Multiemployer Challenges
Multiemployer Landscape
The Current Landscape

- Roughly 1,250 active multiemployer pension plans
  - Figure does not include over 100 plans already terminated or insolvent
  - Over 10 million active, inactive, and retired workers

- Close to 130 plans are in “critical and declining” status
  - Projected to exhaust their assets within the next 20 years
  - These plans cover over 1 million participants

- Other plans projected to fail beyond 20 years
Zone Status by Industry

Source: Horizon Actuarial study of 2016 Form 5500 data

- Percentages may not sum to 100% due to rounding
- Approximately 0.2 million participants are covered in industries other than those shown in the chart above
"PBGC" = Pension Benefit Guaranty Corporation
Multiemployer PBGC Basics

- Provides assistance to plans unable to pay benefits
- Distinct Single and Multiemployer programs
- Funded by premiums paid by plan sponsors
- Multiemployer guaranteed benefit amount
  - 100% of first $11 of monthly benefit plus 75% of the next $33 of monthly benefit for each year of service
Multiemployer Historical PBGC Premiums

*Premiums increase with inflation after the Multiemployer Pension Reform Act of 2014*

Source: CBIZ Retirement Plan Services
PBGC Guaranteed Benefit Amount

PBGC Guarantee: 100% of first $11 of monthly benefit plus 75% of the next $33 of monthly benefit for each year of service
Source: CBIZ Retirement Plan Services
PBGC Multiemployer Fund Projection

Source: PBGC 2017 Fiscal Year Projections Report
PBGC Multiemployer Overview

- PBGC assistance may be constrained
  - Multiemployer program underfunded nearly $60B
  - Multiemployer program likely insolvent in 2025
- PBGC benefit guarantee is already low
- Dramatically larger benefit losses if PBGC fails
- Benefit losses could impact funding for social welfare programs
Multiemployer Funding Rules
Funding Rules: ERISA

- **ERISA** = Employee Retirement Income Security Act
- Passed in 1974, became effective in 1976
- Accrued benefit protections (anti-cutback rule)
- Minimum funding standards
  - Required 100% funding over a 10 to 40 year period
  - Based on best estimate actuarial assumptions
- PBGC established to support insolvent plans
Funding Rules: PPA

- PPA = Pension Protection Act
- Amended ERISA; passed in 2006, effective in 2008
- Created “critical” and “endangered” zone status
  - Incorporated projections into funding standards
  - Required funding improvement and rehabilitation plans
  - Critical status plans may reduce adjustable benefits
- Limit amortization periods to 15 years
- Higher maximum tax-deductible limits
MPRA = Multiemployer Pension Reform Act

- Amended ERISA; passed at end of 2014, effective in 2015
- Included technical corrections to PPA
- Increased PBGC per-participant premium rates
  - From $12 in 2014 to $26 in 2015
- Gave new tools to plans in “critical and declining” status
  - Suspension of benefits
  - Partition of benefits (liability removal) by PBGC
  - Facilitated merger by PBGC
Withdrawal Liability
Withdrawal Liability Basics

- Established in 1980 under MPPAA
  - “MPPAA” = Multiemployer Pension Plan Amendments Act
- Represents employer’s share of UVB
  - “UVB” = Unfunded Vested Benefits
  - Shortfall of assets versus value of vested benefits
- Assessed when an employer withdraws from plan
  - Withdrawal = stop making contributions to plan
Withdrawal Liability Calculations

1. UVB Measurement
   - Annual measurement for total plan
   - Based on plan actuary’s assumptions, for example:
     - Funding interest rate (7% to 7.5%)
     - PBGC settlement rates (under 3%)

2. UVB Allocation
   - Total plan UVB must be allocated among employers
   - ERISA defines certain allocation methods
   - Some plans can apply to PBGC for alternate methods

3. Payment Schedule
   - ERISA defines payment schedule
   - Based on historical contribution rates, work levels
   - In general, payments are limited to 20 years
Withdrawal Liability Issues

- “Unpaid” withdrawal liability
  - Possible sources:
    - Employer affected by “20-year cap”
    - Employer goes bankrupt
    - Employer settles withdrawal liability at a discount
  - Creates additional burden for employers remaining in plan
- Consider effect on employer’s credit
  - e.g., if withdrawal liability given higher priority in bankruptcy
Withdrawal Liability Special Rules

- Construction industry plans
  - Exemption for employers that withdraw – and don’t go non union
  - Plans not permitted to adopt alternative UVB allocation methods

- Mass withdrawal
  - Occurs when all (or substantially all) employers withdraw
  - UVB recalculated based on PBGC assumptions
  - 20-year cap ceases to apply
Actuarial Assumptions
Fundamental Equation

\[ C + I = B + E \]

*Contributions (C) + Investments (I) = Benefits (B) + Expenses (E)*
Typical Defined Benefit Plan Assumptions

Economic Assumptions
- Discount Rate
- Return on Assets
- Inflation
- Future Hours Worked
- Administrative Expenses

Demographic Assumptions
- Mortality
- Mortality Improvement
- Turnover
- Disability Incidence
- Payment Form
## Actuarial Standards of Practice ("ASOPs")

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Most Recent Eff. Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Measuring Pension Obligations</td>
<td>December 31, 2014*</td>
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<tr>
<td>23</td>
<td>Data Quality</td>
<td>April 30, 2017</td>
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<td>25</td>
<td>Credibility Procedures</td>
<td>May 1, 2014</td>
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<td>27</td>
<td>Selection of Economic Assumptions</td>
<td>September 30, 2014*</td>
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<tr>
<td>35</td>
<td>Selection of Demographic and Other Noneconomic Assumptions</td>
<td>June 30, 2015*</td>
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<td>41</td>
<td>Actuarial Communications</td>
<td>May 1, 2011</td>
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<td>44</td>
<td>Selection/Use of Asset Valuation Methods for Pension Valuations</td>
<td>March 15, 2008</td>
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<tr>
<td>51</td>
<td>Assessment and Disclosure of Risk</td>
<td>November 1, 2018</td>
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</tbody>
</table>

* Under Revision
Assumption Setting Guidance

- Reasonable Individually and in the Aggregate
- Appropriate for Purpose of Measurement
- Adhere to ASOP’s
- Actuary’s Best Estimate and Professional Judgement
- Consider Past and Future Experience
- No Significant Bias

Assumptions (Must disclose rationale and any changes)
How We Got Here
How The Current Situation Developed

- Benefits supported by diversified asset portfolios
- Past surpluses not retained to offset future losses
- Plans became more mature
  - Declines in covered workforce
  - Employers have exited the system
- Dramatic asset losses in the “Great Recession”
# How The Current Situation Developed

## Median Results for Multiemployer Pension Plans: 2002 to 2016

<table>
<thead>
<tr>
<th>Median Results Based on Form 5500 Data</th>
<th>Funded Percentages</th>
<th>Annualized Returns</th>
<th>Average Contrib. Rate</th>
<th>Demographic Maturity Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Plans</td>
<td>75% 83%</td>
<td>5.3%</td>
<td>x 2.6</td>
<td>1.0 1.7</td>
</tr>
<tr>
<td>Critical &amp; Declining</td>
<td>76% 52%</td>
<td>5.3%</td>
<td>x 2.9</td>
<td>1.7 6.4</td>
</tr>
<tr>
<td>Critical</td>
<td>73% 66%</td>
<td>5.2%</td>
<td>x 2.9</td>
<td>1.0 2.0</td>
</tr>
<tr>
<td>Endangered</td>
<td>68% 71%</td>
<td>5.1%</td>
<td>x 2.7</td>
<td>1.0 1.6</td>
</tr>
<tr>
<td>Green Zone</td>
<td>77% 90%</td>
<td>5.4%</td>
<td>x 2.4</td>
<td>0.8 1.4</td>
</tr>
</tbody>
</table>

- Source: Horizon Actuarial study of Form 5500 data. See following exhibits for more detail.
- Conclusions supported by Segal Consulting study of Form 5500 data done in 2018.
Funded Percentage

Source: Horizon Actuarial study of Form 5500 data

- Results include calendar year plans only; may not be comparable with non-calendar plan years
- Funded percentages are measured at December 31 and are based on the market value of assets and the unit credit accrued liability
- Note: funded percentages under PPA are measured based on the actuarial value of assets
- Zone status determined based on 2016 Form 5500
Investment Returns

Range of 15-Year Annualized Investment Returns by Zone Status (2002-2016)

<table>
<thead>
<tr>
<th>Zone Status</th>
<th>Total Plans</th>
<th>Critical &amp; Declining</th>
<th>Critical</th>
<th>Endangered</th>
<th>Green Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>75th Percentile</td>
<td>38</td>
<td>5.8%</td>
<td>5.6%</td>
<td>5.7%</td>
<td>5.9%</td>
</tr>
<tr>
<td>50th Percentile (Median)</td>
<td>85</td>
<td>5.3%</td>
<td>5.2%</td>
<td>5.1%</td>
<td>5.4%</td>
</tr>
<tr>
<td>25th Percentile</td>
<td>4.6%</td>
<td>4.9%</td>
<td>4.9%</td>
<td>4.7%</td>
<td>4.9%</td>
</tr>
</tbody>
</table>

Source: Horizon Actuarial study of Form 5500 data

- Analysis performed for calendar year plans with complete history only; may not be comparable with non-calendar plan years
- Returns are net of investment fees, but gross of operating expenses
- Plan’s investment allocation is a key driver of its investment returns
- Investment horizons for most pension plans are longer than 15 years
- Zone status determined based on 2016 Form 5500
Contribution Increases

Range of Contribution Rate Increases by Zone Status from 2002 to 2016

<table>
<thead>
<tr>
<th>Zone Status</th>
<th>Total Plans</th>
<th>75th Percentile</th>
<th>50th Percentile (Median)</th>
<th>25th Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical &amp; Declining</td>
<td>99</td>
<td>x 4.5</td>
<td>x 2.9</td>
<td>x 2.0</td>
</tr>
<tr>
<td>Critical</td>
<td>197</td>
<td>x 4.0</td>
<td>x 2.9</td>
<td>x 2.2</td>
</tr>
<tr>
<td>Endangered</td>
<td>135</td>
<td>x 3.8</td>
<td>x 2.7</td>
<td>x 2.1</td>
</tr>
<tr>
<td>Green Zone</td>
<td>664</td>
<td>x 3.2</td>
<td>x 2.4</td>
<td>x 1.8</td>
</tr>
</tbody>
</table>

Multiplier

1.0
2.0
3.0
4.0
5.0

Source: Horizon Actuarial study of Form 5500 data

- Hours worked (or other contribution base units) are not reported on the Form 5500
- Employer contributions per active participant is used as a proxy for contribution rate
- Zone status determined based on 2016 Form 5500
Plan Maturity: Participant Ratio

Median Participant Ratios: Inactive to Active (End of Plan Year)

Source: Horizon Actuarial study of Form 5500 data

- Participant ratio = number of inactive participants / number of active participants
- Inactive participants include inactive participants with deferred benefits, retirees, and beneficiaries
- Zone status determined based on 2016 Form 5500
GAO Study on Central States

Source: GAO study of Central States, Southeast, and Southwest Areas Pension Fund (CSPF), June 2018

Central States Inactive/Active Ratio:
- 2000 = 1.4
- 2005 = 1.9
- 2010 = 4.6
- 2016 = 5.3
Why Does Plan Maturity Matter?

- Mature plans have more difficulty reacting to:
  - Investment losses
  - Longevity increases
  - Other adverse events

- Correction levers not as powerful for mature plans
  - Contribution increases
  - Reductions in future benefit levels
Developments Since MPRA

“MPRA” = Multiemployer Pension Reform Act of 2014
MPRA Suspensions of Benefits

- Available to plans in critical and declining status
- Requirements for suspension
  - Must enable plan to avoid projected insolvency
  - Must not materially exceed the amount to avoid insolvency
  - Must be equitably distributed across the participant population
  - Certain participants (old age, disabled) are protected
  - Cannot reduce benefits below 110% of PBGC guarantees
- Plans must submit application to Treasury for approval
  - Treasury has 225 days to review (with PBGC and Department of Labor (DOL))
## Applications to Suspend Benefits

<table>
<thead>
<tr>
<th>Application Status</th>
<th>Plan Count</th>
<th>Total Participants (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved</td>
<td>14</td>
<td>91,000</td>
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<tr>
<td>Denied</td>
<td>4</td>
<td>429,000</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>6</td>
<td>9,500</td>
</tr>
<tr>
<td>In Review</td>
<td>1</td>
<td>&lt; 2,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>25</strong></td>
<td><strong>531,000</strong></td>
</tr>
</tbody>
</table>

- Above counts are as of July 1, 2019
- Approvals include 3 PBGC partitions
- Of the 14 approvals, 6 were on the first attempt
Participant Votes

- If Treasury approves suspension, subject to participant vote
  - Must be conducted 30 days after suspension is approved
  - Under MPRA, no response counts as “yes” vote
    - All 14 participant votes to date have approved suspension
    - In only 2 votes did a majority of returned ballots approve
  - Vote to reject is overridden for “systemically important” plans
    - Representing at least $1 billion in liability to PBGC
Observations

- Concern over cutting benefits too much?
  - But most denials were because cuts were not big enough
  - i.e., not sufficient to enable the plan to remain solvent

- Only 25 plans have applied for a suspension of benefits

  *Possible reasons for not applying:*
  - Cannot avoid insolvency with a suspension (plan is “too far gone”)
  - “Winners vs. losers” analysis does not support a suspension
  - Significant time and resources to submit an application
  - Uncertainty over approval of application
Where Do We Go from Here?
Current Proposals

- Rehabilitation for Multiemployer Pensions Act [Jul. 2019]
  - Rebranding of the Butch Lewis Act, originally introduced Nov. 2017
  - Would provide loans, PBGC assistance to troubled plans

- Miners Pension Protection Act [Jan. 2019]
  - Focuses on solvency for Mine Workers Pension Plan

- Giving Retirement Options to Workers Act [Feb. 2018]
  - Would allow plans to adopt “composite plan” for future service

- Other proposals?
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