

Future Mortality Improvement Scale Development (VM-20) UPDATE

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Mortality Improvements Life Work Group (MILWG) of the Academy Life Experience Committee and SOA Preferred Mortality Project Oversight Group (“Joint Committee”)

RECAP: Individual Life Insurance Future Mortality Improvement (FMI) for VM-20 Products

GOAL: To allow a prudent level of future mortality improvement (FMI) for VM-20 products beginning with the 2022 valuation manual

- FMI scale will be developed, updated and made available to practitioners annually
- Updates will be limited to a threshold of materiality for making a change
- Two versions of the scale will be published: Basic (“Best Estimate”) and Loaded (“with margin”)
- Period of scale application: 20 years
- Varies only by gender and attained age



Topics for Presentation

- 2022 scale development plan
- Issues to be addressed in 2022 recommendation
- Next steps/future considerations



2022 MI Scale Development Plan (VM-20)

2022 MI Scale Development

	Timeline
1. Receive 2020 data from CMS and SOA creates preliminary estimate for 2020	2/28/2022
2. Determine preliminary 2022 HMI and FMI Scales by applying approved methodology to SOA 2020 estimate	3/31/2022
3. Develop recommendation for reflecting COVID impact	5/1/2022
4. Determine method for smoothing (FMI)	6/1/2022
5. Finalize approach for application of margin	6/1/2022
6. Develop revised version of 2022 HMI and FMI scales - apply COVID, smoothing, and margin adjustments	6/15/2022
7. Receive SSA Trustees Report - Intermediate Projections for 2022	6/30/2022
8. Develop final recommendation for HMI and FMI scales for 2022 (basic and loaded versions) and present to LATF for exposure	6/30/2022
9. Receive SSA mortality improvement data (final SOA estimates for 2020)	8/15/2022
10. Respond to exposure comments obtain LATF approval of 2022 HMI and FMI scales - both basic and loaded versions	9/15/2022
11. Publish 2022 HMI and FMI scales on SOA website	9/30/2022

Issues to be Addressed in 2022 Scale Recommendation

- COVID-19 impacts
- Smoothing method
- Margin application



Issues to be Addressed in 2022 Scale Recommendation

COVID-19 Impacts

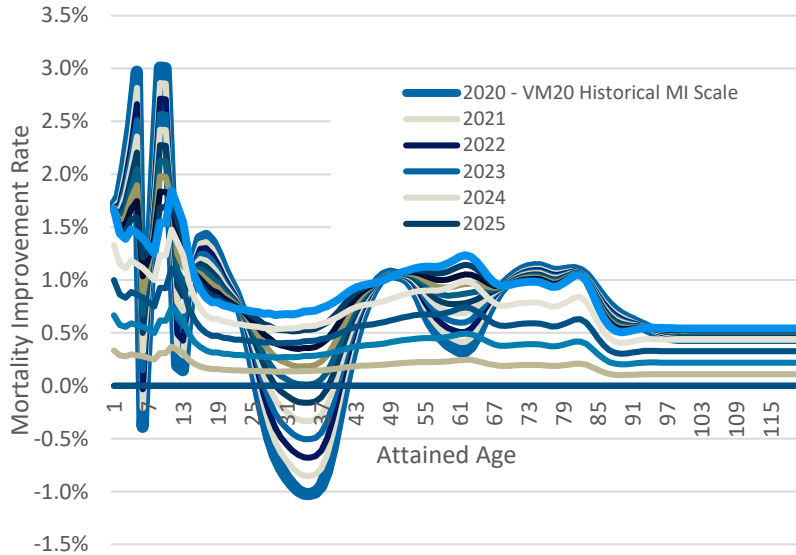
- Quantification of COVID-19 impact
 - Data sources
 - Short vs medium vs longer term impacts
 - Return to improvement over time or continued deterioration
 - Insured vs general population impacts
 - Differences in COVID-19 impact/adjustment approaches by company
- Approach for reflecting impacts
 - Direct adjustment or reflected in margins
 - Consistency across product lines (“Think Tank Group” recommendations)

Issues to be Addressed in 2022 Scale Recommendation Smoothing Method

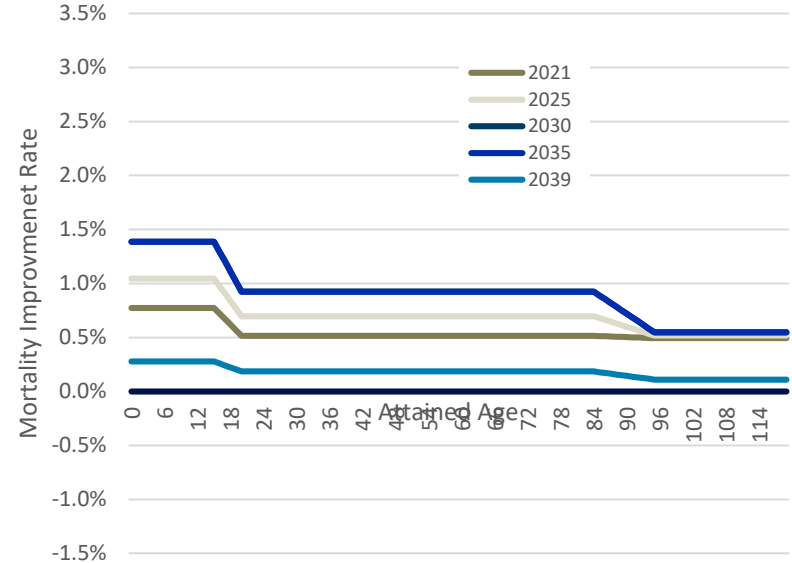
- Unsmoothed historical estimates vary materially by age
- Consider reflecting larger differences in smoothed rates for FMI recommendation
- Consider implications to HMI smoothing for 2022

Issues to be Addressed in 2022 Scale Recommendation Smoothing Method

Sample Male Unsmoothed FMI Rates (Basic)



Sample Male Smoothed FMI Rates (Basic)



Issues to be Addressed in 2022 Scale Recommendation Margin Application

- Apply any adjustments for COVID-19 impacts as determined by subgroup work
- Specify approach for application where FMI rates are zero, near zero or negative



Next Steps and future considerations

- ❑ Threshold of materiality for making a change in a given year
- ❑ Impacts of opioid epidemic
- ❑ Obesity impacts
- ❑ Mental health impacts
- ❑ Slowdown in cardiovascular mortality improvement
- ❑ Smoker status impacts
- ❑ Socioeconomic differences (between general and insured population beyond COVID-19 impacts)



Questions?



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Appendix

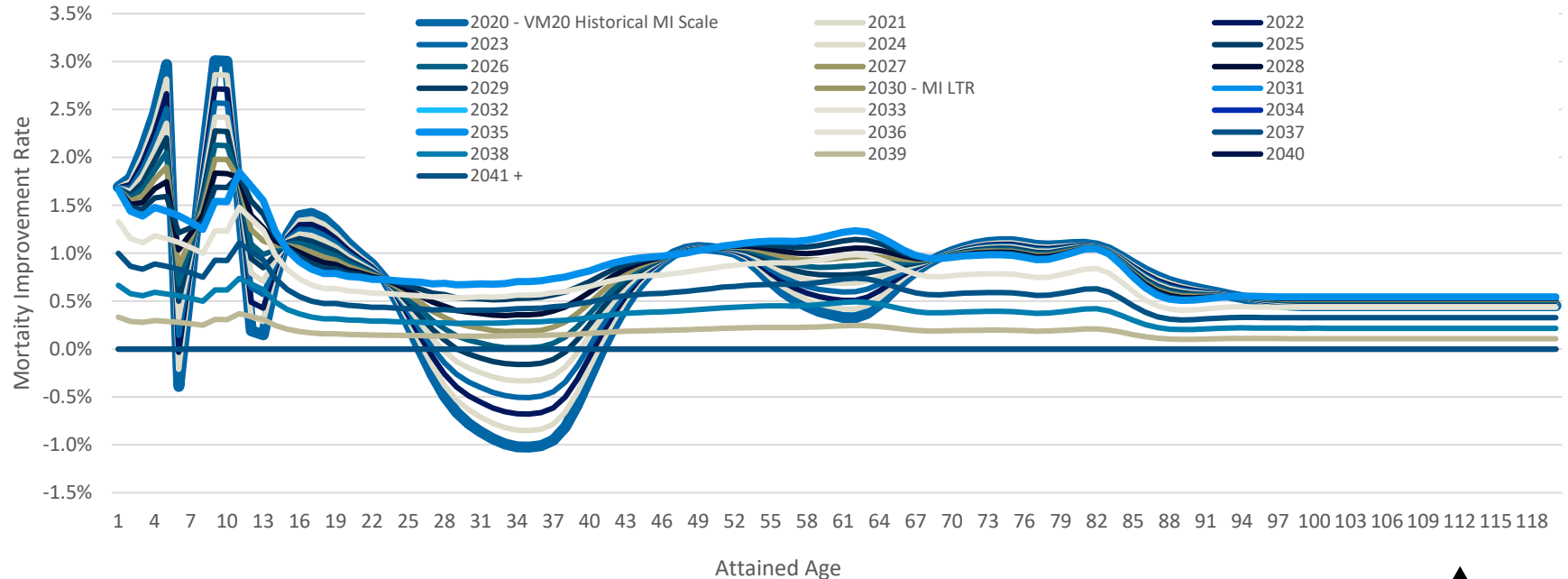


FMI Scale Development—Methodology Review

- Best estimate FMI grades from the historical basis to a long-term MI rate (“LTMIR”) at 10 years
- Remains level from 10 to 15 years
- Grades to no additional improvement at 20 years
- Separate exercise for initial published scale to consider COVID-19 impacts

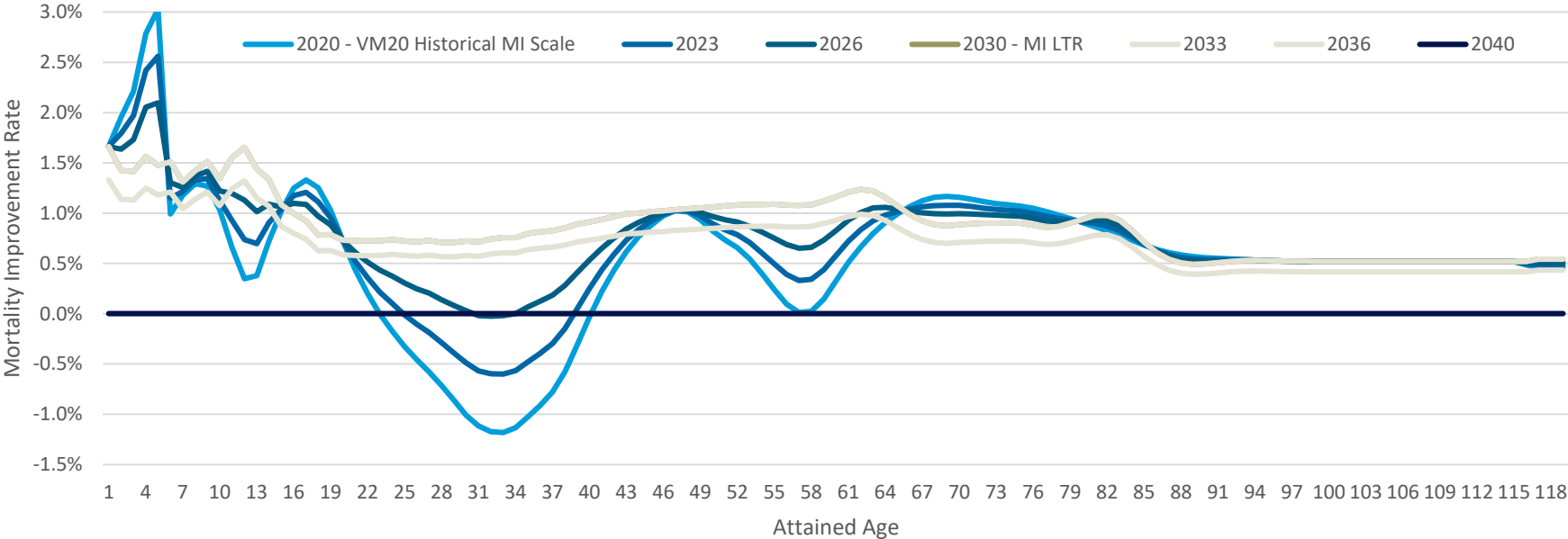
Sample Best Estimate FMI Rates

Unsmoothed—Male—2020 Valuation



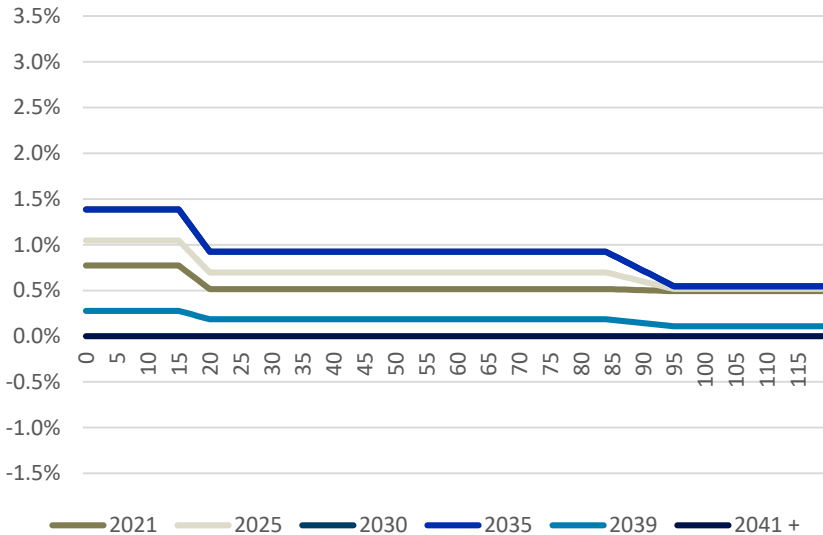
Example Best Estimate FMI Rates

Unsmoothed—Female—2020 Valuation

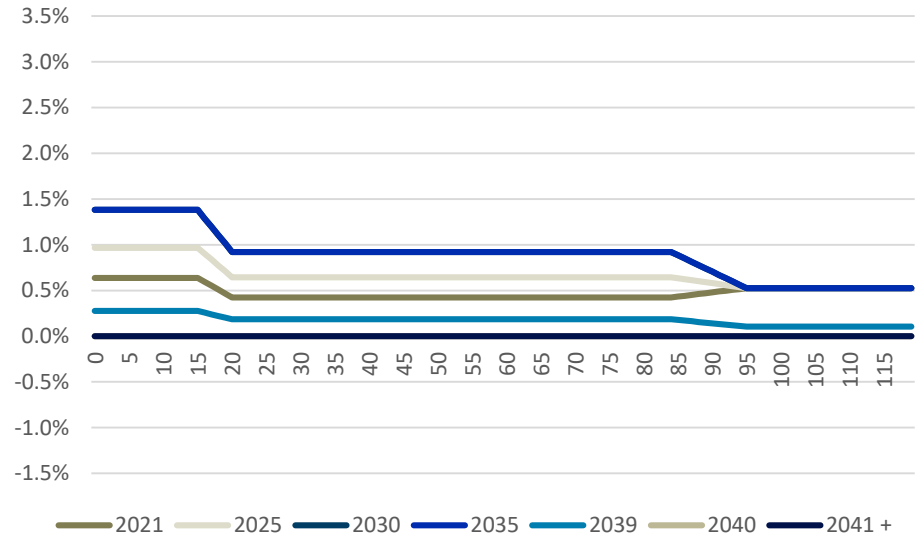


2020 Smoothed Best Estimate FMI Rates

Male Smoothed—Best Estimate MI Rates



Female Smoothed—Best Estimate MI Rates



Margin Recommendation

MARGIN ON THE INCREMENTAL MORTALITY IMPROVEMENT SCALE

- Margin will be included for all companies
 - Companies may use a more conservative MI scale but not less conservative
- Margin will take the form of a flat % reduction in the best estimate MI scale
 - **Recommendation for 25% flat reduction**

Considerations in Margin Recommendation

- 25% reduction in best estimate scale is a material cushion to reserve impact
- Conservatism in best estimate MI scale
 - Not explicitly included
 - Methodology has some conservatism—i.e., limiting cumulative improvements to 20 years
- Ability to change best estimate MI scale each year
 - No lock in of assumptions under VM-20
 - Corrections can be made if trends change