Public Pension Risks and Risk Sharing

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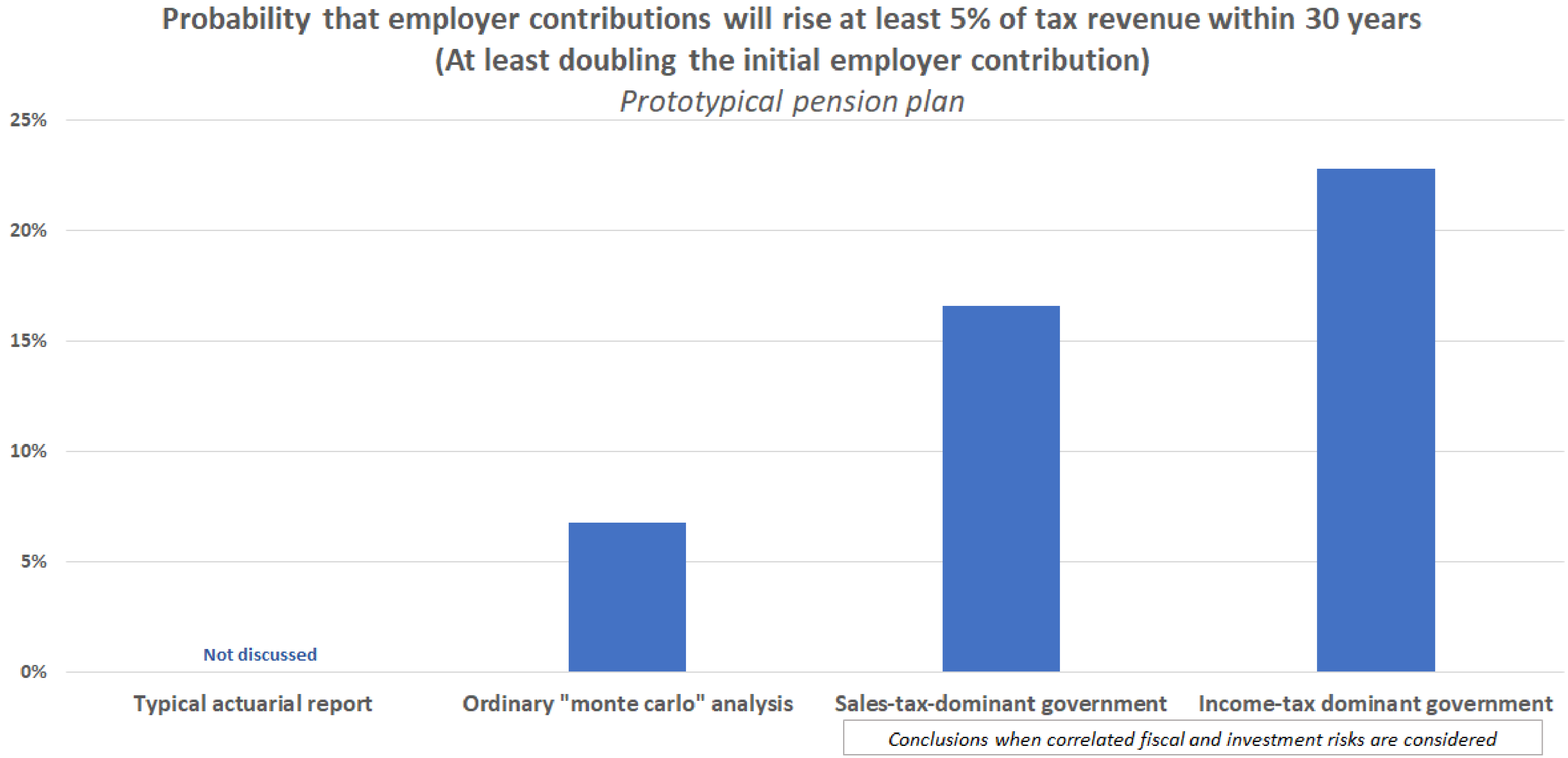
Major risks to pension funding

- Investment returns
- Government ability to pay contributions
  - *These risks are correlated*
- Both are worrisome in the Covid-19 environment
- Some risk- and cost-sharing policies can lower the investment-return risks *to the employer*
- Stress-testing government finances and pension finances can help identify and manage the fiscal risks



Assumes: 7.5% expected return, 12% standard deviation, initial ERC 5% of taxes, 15-year open constant-dollar amortization, average demographics.

Source: Yin, Yimeng, and Don Boyd. "Analyzing the Interplay Between Public Pension Finances and Governmental Finances: Lessons from Linking an Economic Model to a Pension Fund Model." The State and Local Government Finance Project, Center for Policy Research, Rockefeller College, February 2019. https://www.albany.edu/slgf/Yin%20Boyd%20SLGFP%20PensionSimulationMacroLinkagePaper_February2019.pdf.

Investment return risks in the Covid-19 era

- Crash then recovery for plan fiscal years ending in June 2020:
  - Milliman market value funded ratios 100 largest public plans:
    - 74.9% Dec 2019
    - 66.0% !! crash (Mar 2020)
    - 71.2% Jun 2020
  - Pew estimates typical returns fell 4-5% short in year ending June 2020 - bad but not catastrophe
- S&P 500 up ~5.5% since June despite recent declines
- But risks abound:
  - Near-term Covid-19 and econ downsides (next section)
  - Low interest-rate environment (Sheiner, Lenney, Lutz) appears here for a long time
  - Plans ~70+% invested in risky assets. Unless they lower return assumptions, they need to be.
  - Public plans perched on a precipice.

Low interest rates require lower assumed returns or more investment risk (or beat-the-market skill)

- Decline in risk-free interest rates (green line), coupled with...
- Only *minimal decline in assumed returns* (blue line), means...
- Plans must seek a large risk premium (maroon dashed line), by…
- Investing in riskier assets, and…
- Risking both much better and much worse outcomes

Source: Winkelmann, Kurt, Jordan Pandolfo, and Cameron Brummond, Revisiting Why Public Pension Reform Is So Hard, Heller-Hurwicz Economics Institute, University of Minnesota, August 15, 2020, https://cla.umn.edu/heller-hurwicz/news-events/story/policy-brief-revisiting-why-public-pension-reform-so-hard.

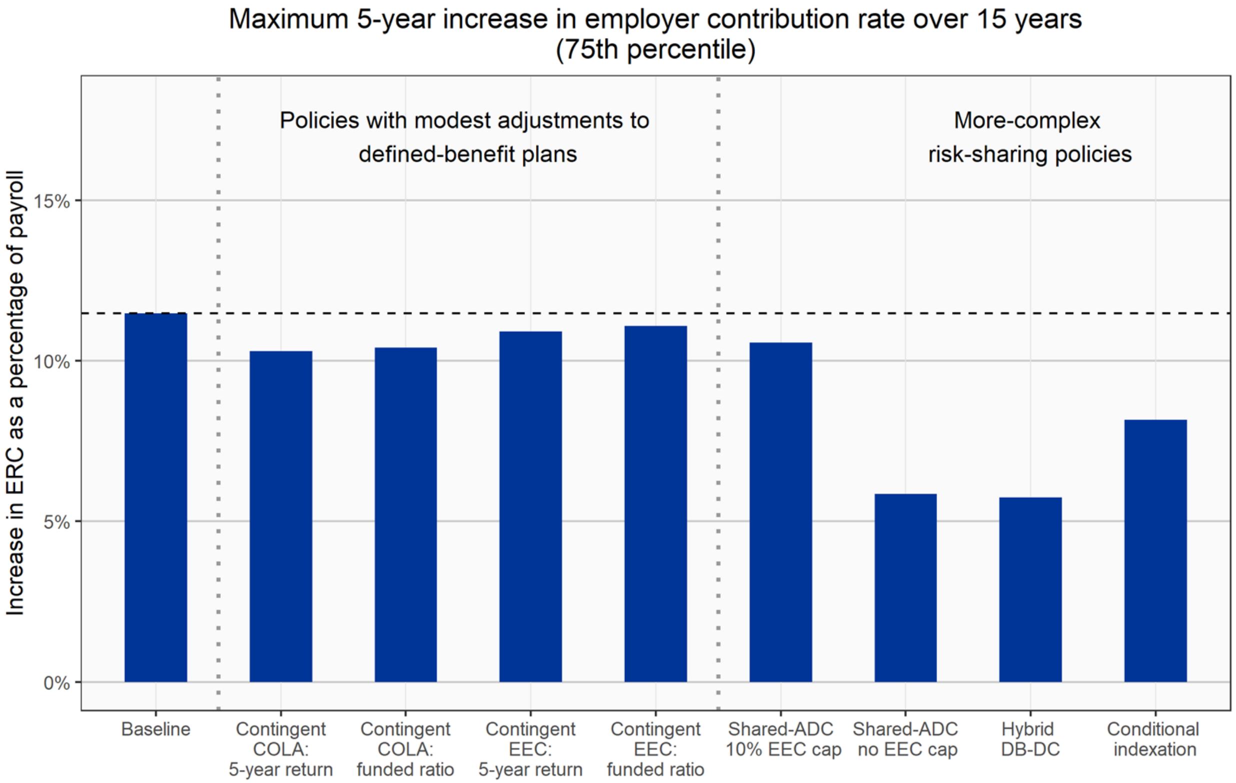
Tax revenue risks

- Economic news, while awful has been better than worst early estimates. Labor market better than expected. Stock market has not collapsed.
- State tax revenue in Covid-19 period (Mar-Aug 2020) down 3.6% in median state vs. year ago. PIT -1.3%, sales tax -2.6%, corporate -10.8%.
- Moody's Analytics alternative severe scenario: biggest factors are (1) Covid-19 resurgence and lockdowns, (2) no fiscal stimulus; both seem quite realistic. They estimate combined state-local revenue-Medicaid shortfall over 2020-2022 of $450b in baseline, $650b in severe.
- Major related risks: timing and effectiveness of vaccine, stock market
- Hard policy choices after fiscal stimulus resolution known. Pension benefits and contributions will be on the table. (S&L contributions currently ~$170b annually.)

Sources: Economic Forecasting Survey, *Wall Street Journal*, https://www.wsj.com/graphics/econsurvey/; White, Dan, U.S. State and Local Government Shortfall Update, Moody's Analytics, September 21, 2020; Dadayan, Lucy, *Monthly State Revenue Highlights* and *State Tax and Economic Review*, various issues, Urban Institute, 2020; Bureau of Economic Analysis, National Income and Product Accounts, Table 7.24. Transactions of State and Local Government Defined Benefit Pension Plans.

Risk-sharing policies can provide meaningful protection

- Some contingent COLA and employee-contribution policies, *when fully effective*, can reduce risk of large employer contribution increases.
- More-complex or -radical policies can achieve greater risk reduction.
- Important to remember that risk-sharing means risk-transfer.
- Motivating factor for introducing risk-sharing often is immediate cost reduction.



Plan is assumed to be 75% funded at beginning of simulation.

Conclusions

- States and localities face major economic, fiscal, and pension investment risks. They are correlated in ways that exacerbate fiscal pressure.
- Public plans are poised to be hit hard if markets fall.
- Some risk- and cost-sharing policies can transfer meaningful risk and cost from employers to plan members. They need to be evaluated from multiple perspectives including impact on employer attractiveness.
- Stress testing can help identify and manage fiscal risks and pension risks.
- Better to have these procedures and policies in effect before downside risks occur than wish so afterward.
- Stay tuned for our Arnold Ventures-supported guidebook on risk-sharing and for work with and for the Pew Charitable Trusts on these issues.