Municipal Employees' Annuity And Benefit Fund of Chicago

Personnel and Pensions Committee Meeting
September 19, 2016

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Discussion Topics – Valuation and Projections

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- **Summary of Valuation Highlights**
- **Valuation Results and Projection**
- **HB 705 Analysis**
- **Observations**

Summary of Valuation Highlights

- Public Act (PA) 98-0641 was ruled unconstitutional by the Illinois Supreme Court
  - The 2015 valuation was performed as if the changes never occurred
- As a result of PA 98-0641 being overturned, the Fund is in imminent danger of insolvency
  - Projected to become insolvent within the next 10 years (during 2025)
  - Projected to have assets equal to accumulated value of member contributions by 2022
- Market value of assets returned 1.8% for year ending 12/31/2015
  - Gradual recognition of deferred gains resulted in 6.9% return on actuarial value of assets
- The funded ratio declined from last year primarily due to removing PA 98-0641
  - Market value basis decreased from 42.0% (as of 12/31/2014) to 32.4% (as of 12/31/2015)
  - Actuarial value basis decreased from 40.9% to 32.9%
  - GASB accounting basis decreased from 42.1% to 20.3%
- Employer contributions booked for 2016 and to be received in 2017 are 1.25 times the applicable member contributions from 2014 ($129,168,659), or $161,460,824
- The actuarially determined contribution for 2016 is $970,112,414
  - Shortfall of over $800,000,000
  - Would require a 7.51 multiple

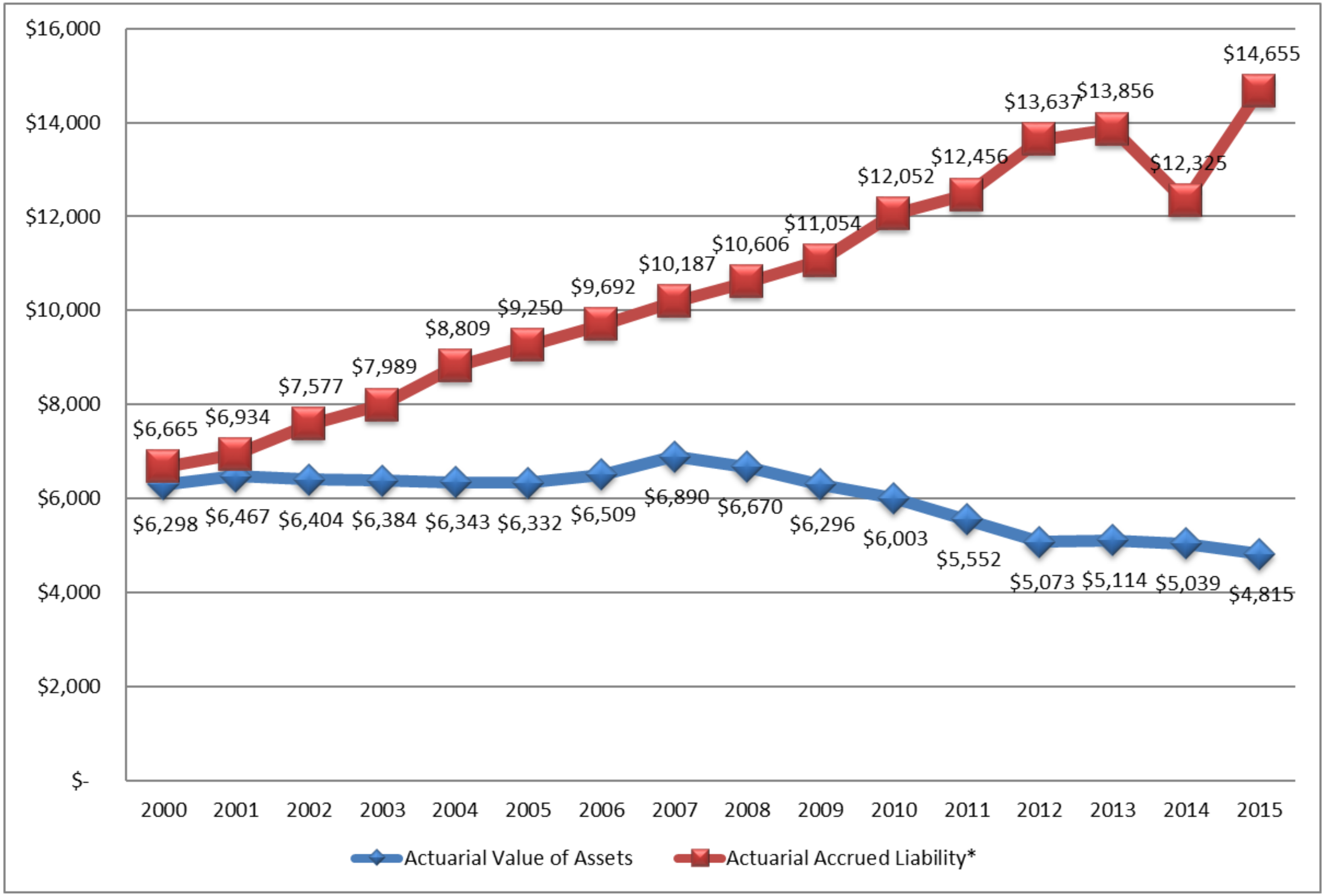
Valuation Results ($ in millions)

		December 31, 2015	December 31, 2014
		Without PA 98-0641	With PA 98-0641
Funding	Actuarial Accrued Liability*:		
	• Active Members	$5,835	$4,938
	• Inactive Members	392	357
	• Retirees and Beneficiaries	8,428	7,029
	Total	**$14,655**	**$12,325**
	Actuarial Assets	4,815	5,039
	Unfunded Accrued Liability	$9,840	$7,286
	Funded Ratio, AVA Basis	32.9%	40.9%
Accounting	Single Equivalent Discount Rate	3.73%	7.50%
	Total Pension Liability	$23,358	$12,307
	Plan Fiduciary Net Position	4,741	5,179
	Net Pension Liability	18,617	7,128
	Funded Ratio, GASB Basis	20.3%	42.1%

* Includes pension and OPEB

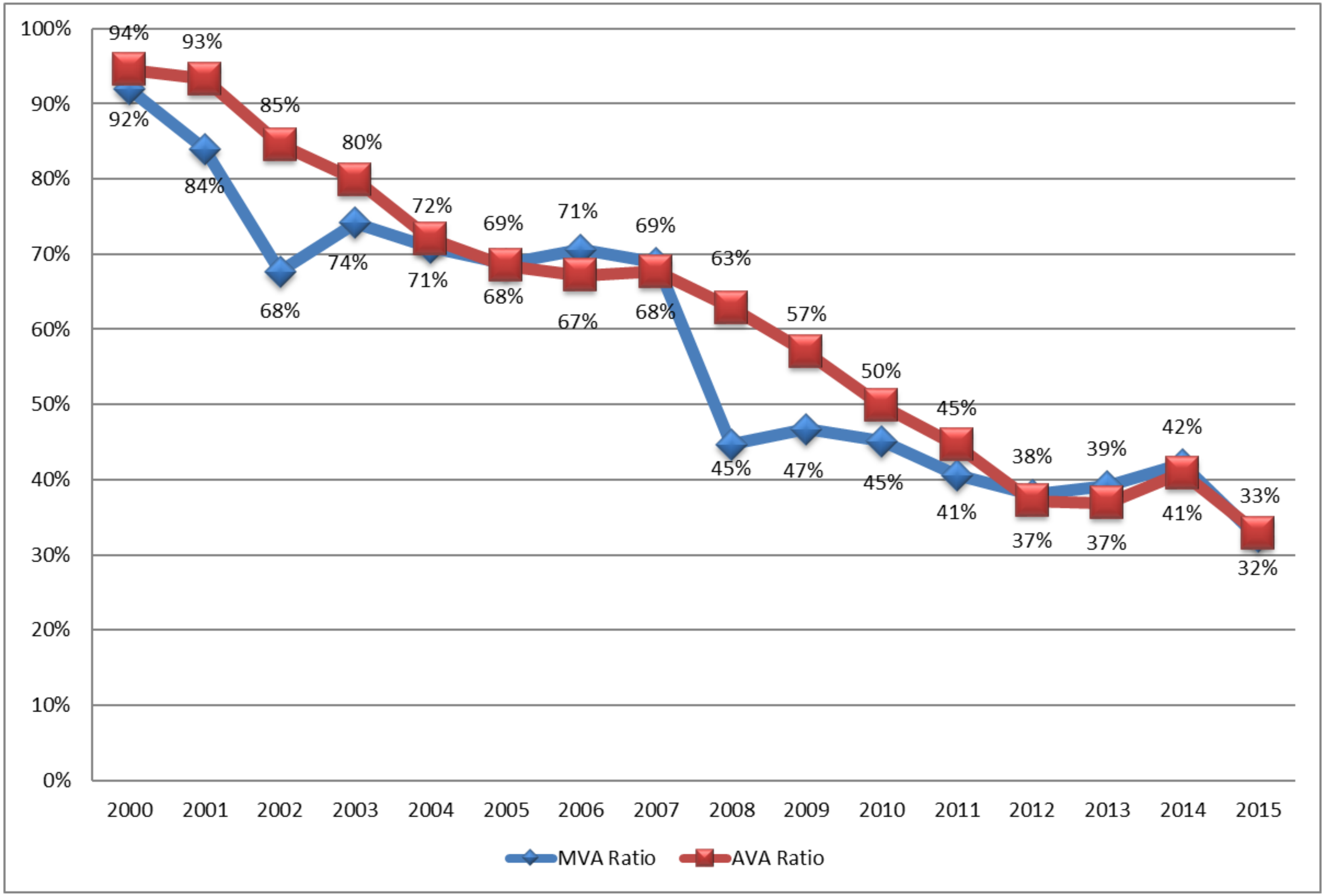
Actuarial Accrued Liability Vs. Actuarial Assets

$ Millions



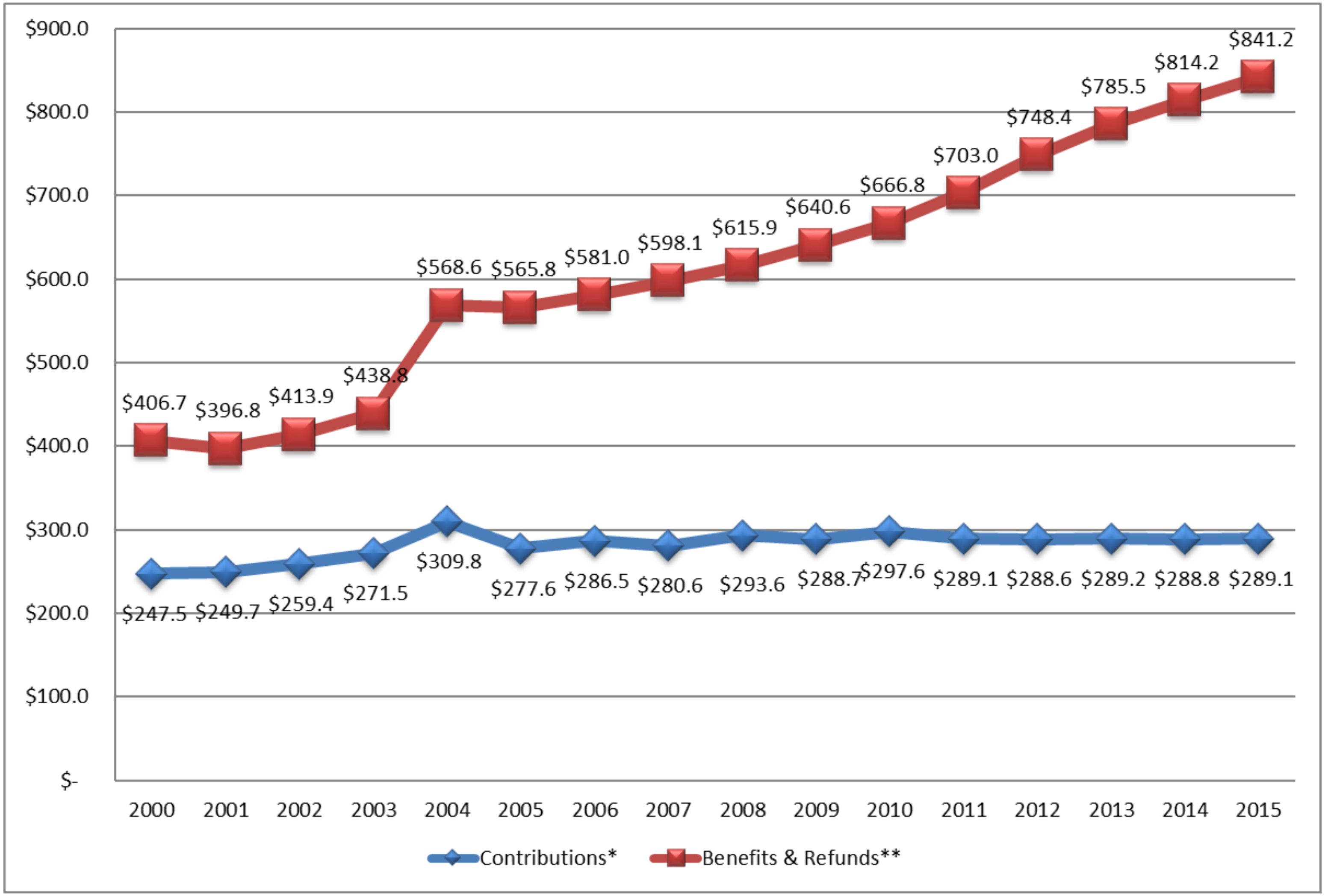
* Includes pension and OPEB

Funded Ratios



Contributions vs. Benefits and Refunds

$ Millions



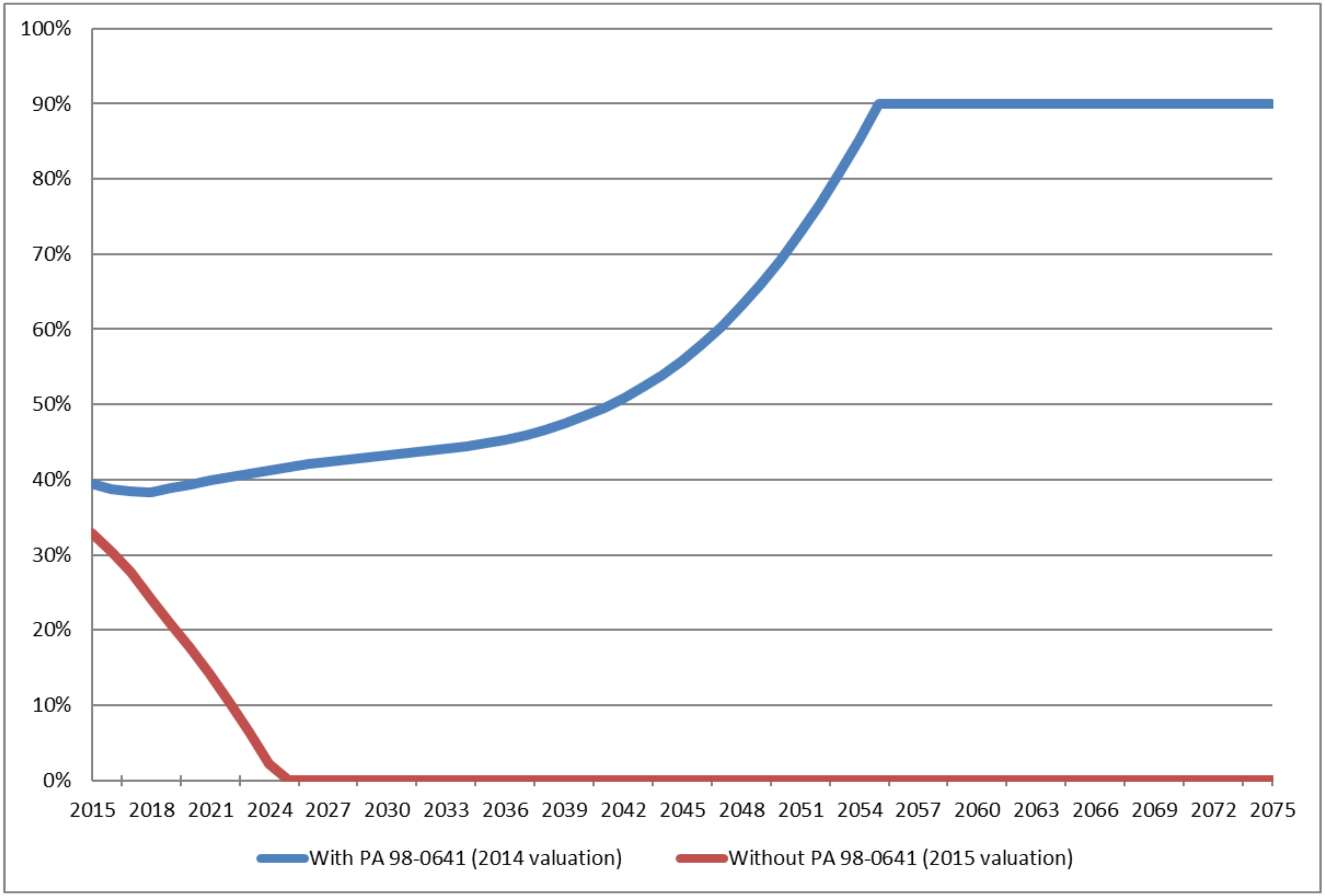
* Includes member and employer contributions

** Includes OPEB benefits and administrative expenses

50-Year Baseline Projection

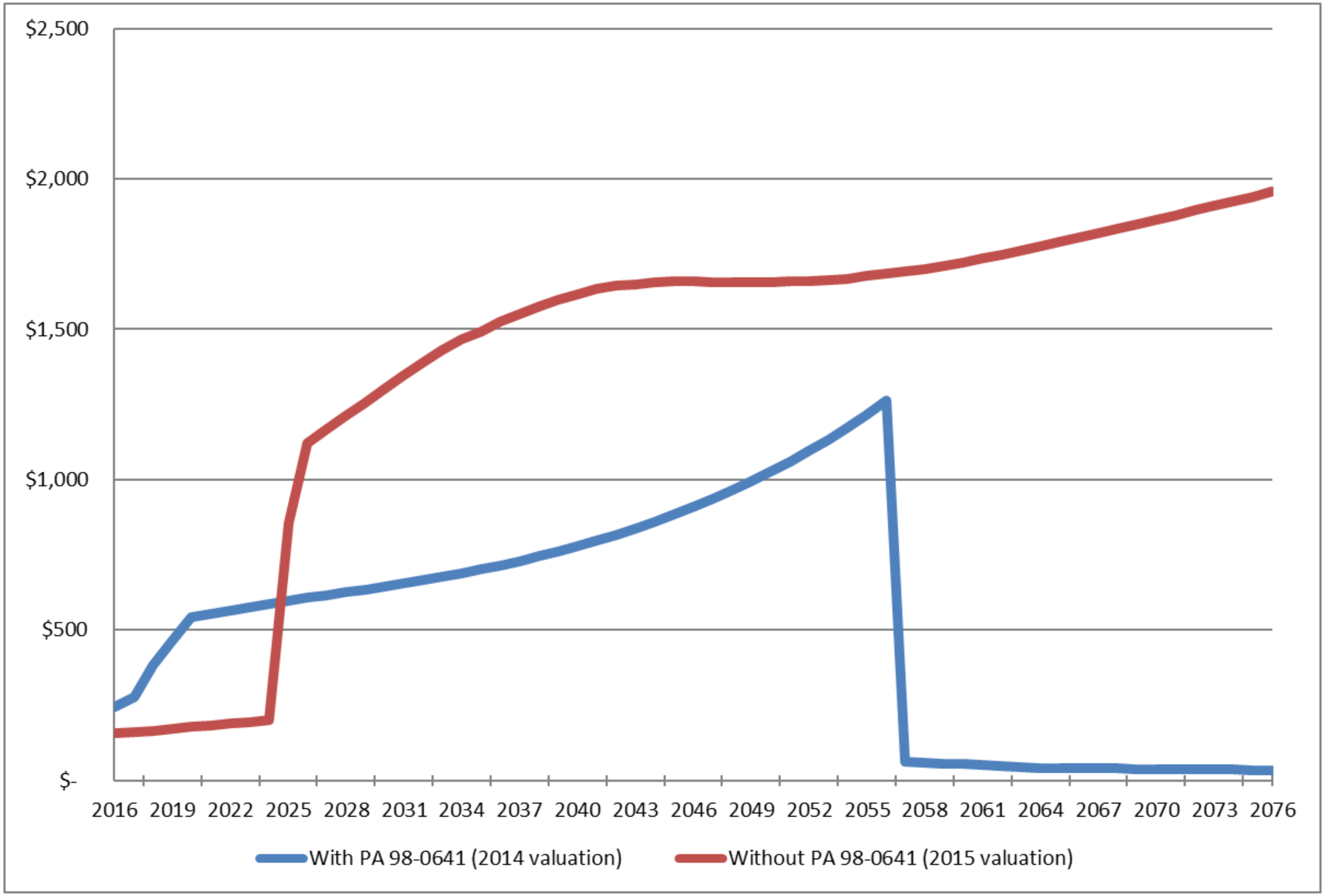
- Based on the results of the December 31, 2015 actuarial valuation
- Future member contributions are equal to 8.5% of salary. Future employer contributions are equal to 1.25 times member contributions two years prior until projected insolvency. Subsequent to projected insolvency, employer contributions are equal to the amounts required to pay benefit payments and expenses in each future year.
- Assets are assumed to earn 7.5% per year
- The active population is assumed to remain level and future members are assumed to have similar characteristics to new members hired within the past 10 years

Projected Funded Ratio (AVA Basis)



Projected Employer Contributions

$ Millions

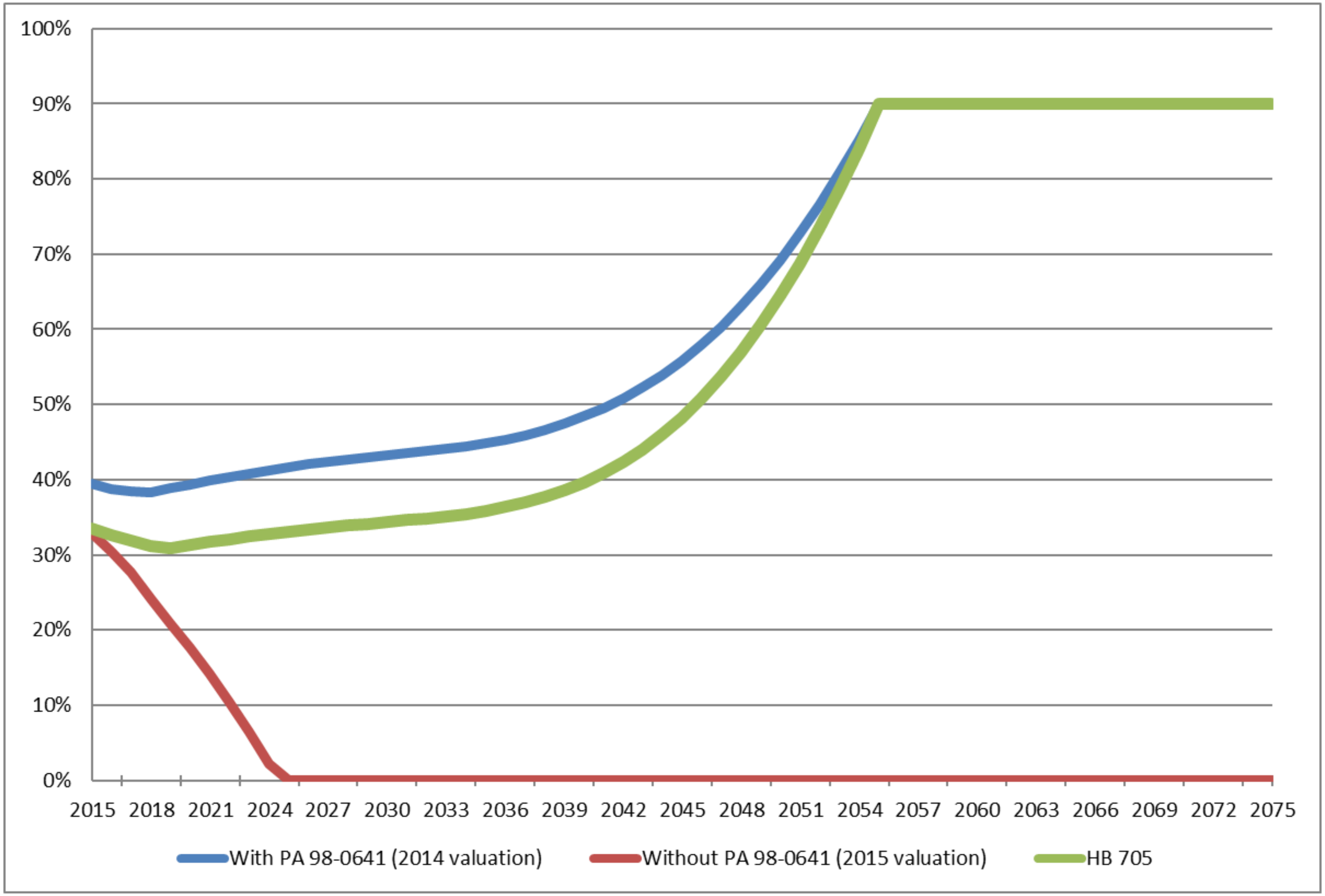


* Contributions in “Without PA 98-0641 (2015 valuation)” beyond 2024 represent amounts to continue payment of benefits (i.e., “pay-as-you-go” funding)

HB 705

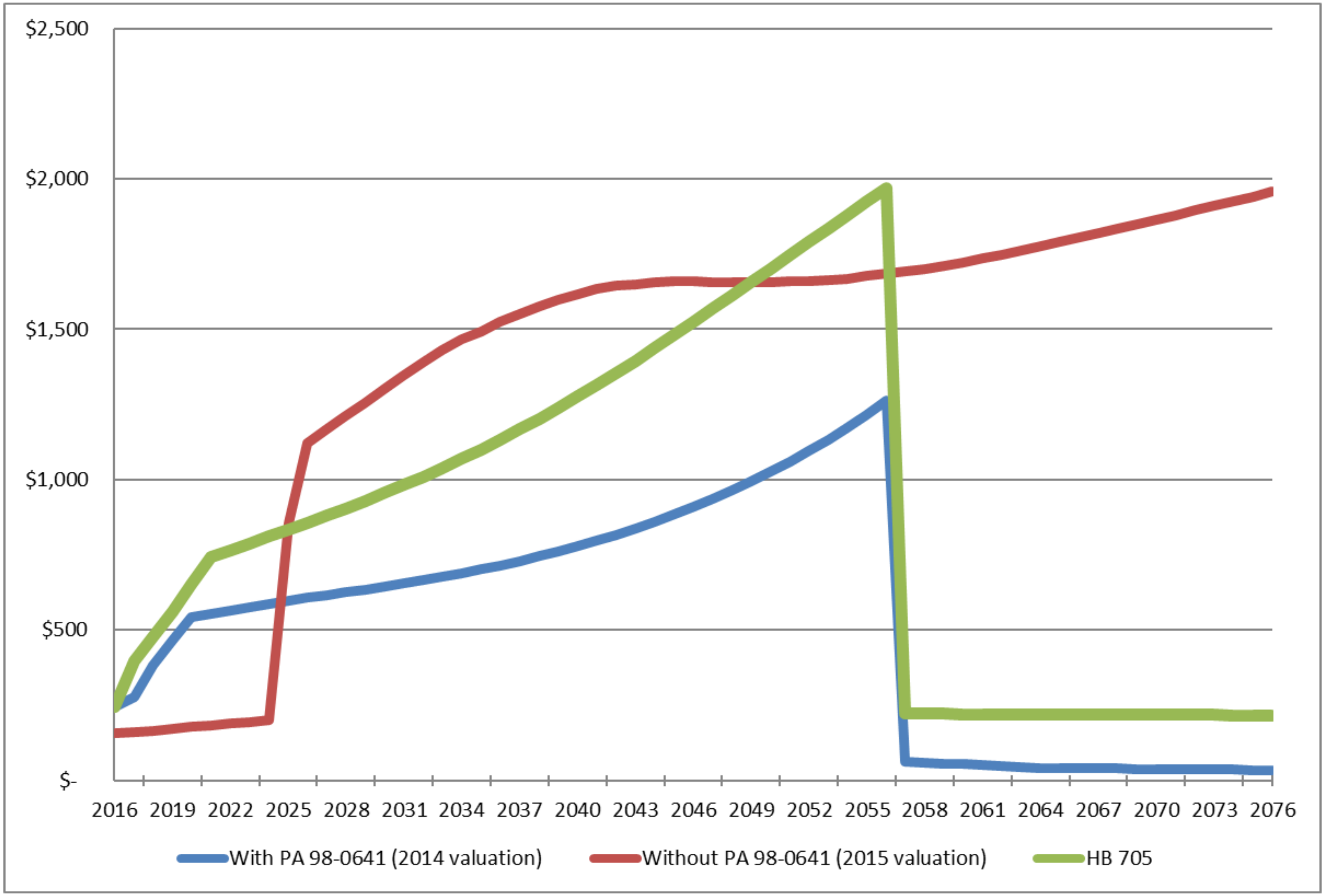
- Bill was introduced to prevent Fund insolvency
- HB 705, Amendment 1, modifies future employer contributions as follows:
  - Required contribution for payment year 2016 is 1.85 times member contributions two years prior
  - Beginning in payment year 2017, required contributions are determined as a level percentage of pensionable payroll that is sufficient to bring the Fund up to 90% funded by 2055
  - Contributions for payment years 2017 through 2020 phase up to the full required amount at 60%, 70%, 80%, and 90% in each of those years
- Future member contributions are equal to 8.5% of salary
- Assets are assumed to earn 7.5% per year
- The active population is assumed to remain level and future members are assumed to have similar characteristics to new members hired within the past 10 years

HB 705 Projected Funded Ratio (AVA Basis)



HB 705 Projected Employer Contributions

$ Millions



* Contributions in “Without PA 98-0641 (2015 valuation)” beyond 2024 represent amounts to continue payment of benefits (i.e., “pay-as-you-go” funding)

Projected Contributions

$ millions	With PA 98-0641	Without PA 98-0641	HB 705, Amend. 1
2016	$243	$158	$243
2017	275	161	396
2018	381	164	476
2019	465	173	561
2020	543	178	651
2021	554	184	744
2022	566	189	766
2023	576	195	788
2024	587	201	811
2025	597	856	834
2030	645	1,303	956
2040	778	1,617	1,276
2050	1,026	1,657	1,701
2060	53	1,723	221
2070	38	1,865	218
Total thru 2070	$31,644	$74,868	$51,279

Observations

- The current 1.25 fixed contribution multiple has been severely inadequate for many years
  - For 2016, the 1.25 multiple yields a $161.5 million employer contribution that is over $800 million short of an “actuarially determined” amount
- Large negative cash flow does not lend itself to optimal investment strategies
- Delaying the funding of a pension plan will result in greater contributions due later
  - Missed opportunity to earn investment returns
  - Unfunded liabilities grow when the interest on the UAL is not funded
- Contribution ramps are a mechanism for delaying funding
  - Ramps unrelated to an actuarially determined contribution leaves the Fund highly vulnerable to investment volatility during the ramp period
- Projections of insolvency do not contemplate the complicated issue involving accumulated member contributions:
  - Can accumulated member contributions be used to pay benefits of current retirees absent other assets?
  - Should this money be segregated from Fund assets at some point in the near future?
  - Is effective insolvency actually sooner than 2025?

Questions?

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