Memorandum

To:

Senate Ways and Means Committee

From:

Alan D. Conroy, Executive Director

Date:

April 5, 2013

Subject:

HB 2403, as amended by House Committee

HB 2403, as amended by the House Pensions and Benefit Committee, authorizes the Kansas Development Finance Authority (KDFA) to issue one or more series of revenue bonds in an amount not to exceed \$1.5 billion, plus costs of issuance. The bonds are subject to the approval of the State Finance Council and a maximum 5.0% interest rate on the bonds. The proceeds of these bonds would be paid to KPERS and applied to the unfunded actuarial liability of the KPERS State and School Group. Subject to these provisions and limitations, the terms of the bonds, including their term, whether issued as a single or multiple series of bonds, and the timing of the issuance, are at the discretion of KDFA. The House Committee amended the bill to provide that, in FY 2015, the employer contribution rate for the State/School Group would be decreased by an amount equivalent to the first year of debt service on the bonds. Existing statutory caps on employer contribution increases would apply in subsequent years.

Impact on KPERS of Bond Issuance

KPERS' consulting actuary, Cavanaugh MacDonald, provided a cost study assessing the impact on the KPERS State/School Group of receiving the proceeds from \$1.5 billion in revenue bonds on December 31, 2031. (See attached.) Several of the key effects are summarized below.

State/School Group	Baseline (2012 HB 2333)	\$1.5 Billion Bond					
Peak Employer Contribution Rate	17.26% in FY 2022	14.29% in FY 2021					
Funded Ratio in FY 2014	50.4%	59.0%					
Fiscal Year that Funded Ratio Reaches 80.0 Percent	FY 2028	FY 2026					
Total Employer Cost through FY 2045	\$22.6 billion	\$19.3 billion					
Present Value of Employer Cost through FY 2045	\$9.3 billion	\$8.0 billion					

Although the cost study projects a significant increase in the State/School Group's funded ratio at the time the bonds are deposited, the unfunded actuarial liability would be paid in full only at the end of the current amortization period in 2033. The bonds would not change the

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unfunded actuarial liability's amortization period, and therefore, the unfunded actuarial liability is not retired more rapidly. Instead, the bonds permit reduction of employer contribution rates (both the maximum and total contributions paid through 2033).

The cost study also illustrates the total state obligation, taking into account both employer contributions and the debt service payments that would be necessary to repay the bond issue, which are assumed to be paid from a source other than KPERS. When both are considered together, the total state obligation through FY 2045 is projected to be \$744 million less than under current law (with a present value difference of \$477 million). The cost study assumes that all actuarial assumptions, including the 8.0 percent return on investment, are met in each future year.

KPERS Board of Trustees Supports the Issuance of Bonds

The KPERS Board of Trustees is aware of the Legislature's consideration of bonds and had an opportunity to discuss the topic at its meeting on March 15. In its role as fiduciary for the KPERS plan, the Board expressed its strong support of responsible initiatives to improve KPERS' funded status. If bond proceeds are credited toward the unfunded actuarial liability and repaid from a funding source other than KPERS contributions, the Board agrees that bonds would represent a meaningful effort to address KPERS' long-term funded status.

Favorable Bond Market

The Board discussed the current, very favorable bond market for the issuance of bonds. The near historic low interest rates on bonds provide the very favorable opportunity to realize market gains from the investment of the bond proceeds. The Board of Trustees believes that KPERS can prudently manage the investment of any amount of bond proceeds that the Legislature may authorize.

Legislature Should Set the Bond Issuance Policy

KPERS stands ready to work with the System's investment consultant and investment managers to manage the large cash infusion that would result from bond proceeds. However, the Board believes that the specific parameters under which bonds would be issued, including the amount, term, rates, tax status, and similar features, are most appropriately addressed by the Legislature and KDFA. Moreover, the Board recognizes the Legislature's primary role in assessing such considerations as –

- The risks associated with the bonds, including market timing and interest rate risks, relative to KPERS' anticipated investment returns.
- The impact on the State's budget flexibility and credit ratings
- The commitment to continued funding of scheduled employer contributions once the bonds are issued.

If you have any additional questions regarding bonding, I would be happy to assist the Committee as necessary.

Attachment

The experience and dedication you deserve

March 20, 2013

Mr. Alan Conroy Executive Director Kansas Public Employees Retirement System 611 S. Kansas Ave., Suite 100 Topeka, KS 66603-3803

Re: Cost Study for Impact of \$1.5 Billion Pension Obligation Bond with Initial Rate Reset to Reflect Debt Service Payments

Dear Alan:

At your request, we have prepared a cost study to determine the impact on KPERS if there were a pension obligation bond (POB) issued by the state of Kansas with net proceeds of \$1.5 billion deposited into the KPERS trust fund for the State/School group. The debt service payments on the bonds would be paid outside the KPERS contributions, but an initial employer rate adjustment would be made to approximately offset the first year debt service payment. For modeling purposes, the POB proceeds are assumed to be deposited into the KPERS trust on December 31, 2013 and the adjustment to the contribution rate would be effective July 1, 2014 for FYE 2015. As more details become available, our cost study may need to be revised to more accurately reflect the actual provisions related to the issuance of the POB.

Cost Impact

We used the projection model prepared in conjunction with the December 31, 2011 actuarial valuation to measure the cost impact of the \$1.5 billion POB deposit into the KPERS trust fund on December 31, 2013. The cost study assumes debt service payments of \$86.277 million per year for 30 years (provided to us by KPERS) would be paid outside the KPERS contributions, but with an initial rate adjustment for FYE 2015 in an amount approximately equivalent to the first-year debt service payment. We estimate that this one-time reduction in the statutory employer contribution rate in FY 2015 would be 1.85%. These results are compared to the projections under Sub HB 2333 without the POB proceeds over the period of FY 2013 through FY 2045 (to provide a point of comparison after the bond is repaid). Exhibit A shows the estimated employer contribution rate and the corresponding dollar amounts of employer contributions along with the funded ratio under each scenario. The total employer contributions for FY 2013 through FY 2045 based on HB 2333 are \$22,607.54 million (statutory employer contributions plus additional State contributions from ELARF). Under the scenario where a \$1.5 billion POB is issued, the total employer contributions (with ELARF) over the same period are \$19,275.07 million, a difference of

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\$3,332.47 million. Including the debt service payments, the total state contributions over the period are \$21,863.38 million, a difference of \$744.16 million.

Please note that the dollar amounts of employer contributions shown in the exhibits are future dollar amounts, calculated using the estimated employer contribution rate and projected payroll in future years. Due to the length of the projection period, the future payroll amounts grow significantly and the resulting contributions in nominal dollars in those years can appear very large. In order to provide a method for a more direct comparison of cost results, the present value of the employer contributions, using an 8% discount rate, has been included.

The projections used in this cost study assume that all actuarial assumptions, including the 8% investment return assumption, are met each year in the future. The cost projections are sensitive to the assumptions used, particularly the investment return assumption. To the extent the 8% investment return assumption is not met in the future, the cost projections in these studies are expected to change. Further analysis can be provided upon request if it is deemed to be necessary or helpful.

Disclaimers, Caveats, and Limitations

The numerical table that comprises this cost study is based primarily upon the December 31, 2011 valuation results, the actuarial assumptions used in that valuation (unless otherwise noted elsewhere in this letter), and the projection model prepared by the System's actuary, Cavanaugh Macdonald Consulting, LLC. Significant items are noted below:

- The investment return in all future years is assumed to be 8% on a market value basis, unless otherwise indicated.
- All demographic assumptions regarding mortality, disability, retirement, salary increases, and termination of employment are assumed to hold true in the future. Please note that the actuarial assumption assumes that mortality will improve in the future (i.e. people will live longer).
- The number of active members covered by KPERS in the future is assumed to remain level (neither growth nor decline in the active membership count). As active members leave covered employment, they are assumed to be replaced by new employees who have a similar demographic profile as recent new hires.
- The funding methods, including the entry age normal cost method, the asset smoothing method, and the amortization method and period, remain unchanged other than as noted elsewhere in this letter.
- Debt service payments of \$86,277,000 are assumed to be paid outside of KPERS contributions. The state/school employer contribution rate is reduced by 1.85% in FY 2015 (after application of the 1.0% statutory cap) to approximately offset the first year of debt service for the bonds. The current statutory caps then apply in FY 2016 and subsequent years.
- All projections reflect the statutory caps of 0.9% in FY 2014, 1.0% in FY 2015, 1.1% in FY 2016 and an ultimate cap of 1.2% in FY 2017 and beyond.
- We relied upon the membership data provided by KPERS for the actuarial valuation. The numerical results depend on the integrity of this information. If there are material inaccuracies in the data, the results presented herein may be different and the projections may need to be revised.

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Models are designed to identify anticipated trends and to compare various scenarios rather than predicting some future state of events. The projections are based on the System's estimated financial status on December 31, 2011, and project future events using one set of assumptions out of a range of many possibilities. A different set of assumptions would lead to different results. The projections do not predict the System's financial condition or its ability to pay benefits in the future and do not provide any guarantee of future financial soundness of the System. Over time, a defined benefit plan's total cost will depend on a number of factors, including the amount of benefits paid, the number of people paid benefits, the duration of the benefit payments, plan expenses, and the amount of earnings on assets invested to pay benefits. These amounts and other variables are uncertain and unknowable at the time the projections were prepared. Because not all of the assumptions will unfold exactly as expected, actual results will differ from the projections. To the extent that actual experience deviates significantly from the assumptions, results could be significantly better or significantly worse than indicated in this study.

We are available to answer any questions on the material contained in this study or to provide explanations or further details upon request. We, Patrice A. Beckham F.S.A. and Brent A. Banister, F.S.A., are consulting actuaries with Cavanaugh Macdonald Consulting, LLC. We are also members of the American Academy of Actuaries and Fellows of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

If you have questions or need additional analysis, please let us know.

Sincerely,

Patrice A. Beckham, FSA, FCA, EA, MAAA

Principal and Consulting Actuary

Patrice Beckham

But a. But

Brent A. Banister, FSA, FCA, EA, MAAA, PhD Chief Pension Actuary

Exhibit A

HB 2333 Baseline vs. HB 2333 With Pension Obligation Bond (POB) Net Proceeds of \$1.5 Billion on 12/31/2013, FY2015 Contribution Rate Adjusted

State/School Group

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	(14)	Jan 1 of FY)		With POB	53.0%	29.0%	%6.09	61.9%	62.8%	64.1%	65.6%	67.4%	69.4%	71.4%	73.6%	75.8%	78.2%	80.8%	83.2%	85.7%	88.4%	91.1%	94.0%	97.1%	99.2%	100.1%	100.7%	101.0%	101.0%	101.0%	101.0%	100.9%	100.8%	100.7%	100.6%	100.5%	100.4%
	(13)	Funded Ratio (Jan 1 of FY)		HB 2333	23.0%	50.4%	52.3%	53.3%	54.4%	55.7%	57.4%	59.4%	61.7%	64.2%	%8.99	%5'69	72.4%	75.5%	78.8%	82.2%	85.5%	80.0%	92.7%	%5'96	99.1%	100.2%	100.9%	101.2%	101.4%	101.3%	101.3%	101.2%	101.0%	100.9%	100.8%	100.6%	100.5%
	(12)	3	Present Value	of Difference		1	(0.08)	(2.13)	(4.02)	(5.75)	(10.65)	(37.14)	(40.22)	(42.99)	(44.65)	(45.03)	(45.29)	(62.85)	(61.53)	(44.31)	(44.01)	(40.52)	(36.41)	(34.26)	96'0	6.15	10.81	13.31	13.89	13.65	12.99	12.10	11.40	10.36	9.52	8.74	0.94
	(11)	Total State Obligation vs. HB 2333	-	Difference			(0.09)	(2.79)	(5.69)	(8.78)	(17.56)	(66.15)	(77.37)	(89.32)	(100.17)	(109.11)	(118.51)	(177.64)	(187.82)	(146.08)	(156.69)	(155.82)	(151.21)	(153.66)	4.64	32.18	61.07	81.24	91.52	97.17	28.66	100.41	102.20	100.29	99.54	69'86	11.48
	(10)	tal State Obliga	Total State	핅	\$ 411.51	504.89	565.56	632.68	709.28	790.96	872.58	909.12	943.34	973.72	1,006.45	1,033.39	1,059.37	1,035.40	1,059.40	1,083.71	1,105.38	1,135.99	1,166.09	1,196.81	567.13	466.69	355.40	275.57	242.49	221.92	214.24	214.16	220.13	227.61	238.16	249.38	174.89
	6	To		Debt Service	ا دی	•	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	86.28	•
	(8)		Present Value	of Difference	ı	ı	(71.25)	(68.03)	(65.05)	(62.25)	(62.97)	(85.58)	(85.07)	(84.52)	(83.10)	(80.63)	(78.26)	(93.38)	(89.80)	(70.48)	(68.24)	(62.96)	(57.19)	(53.50)	(16.85)	(10.34)	(4.46)	(0.83)	0.80	1.53	1.77	1.70	1.78	1.45	1.27	1.10	0.94
	6	Imployer Contribution Amount (SM)		Difference	1	ı	(86.37)	(89.06)	(96.16)	(95.05)	(103.84)	(152.43)	(163.64)	(175.59)	(186.45)	(195.39)	(204.79)	(263.92)	(274.10)	(232.36)	(242.97)	(242.10)	(237.49)	(239.94)	(81.64)	(54.09)	(25.21)	(5.04)	5.24	10.89	13.59	14.13	15.92	14.02	13.26	12.42	11.48
	9	loyer Contributi		With POB		504.89	479.28	546.40	623.00	704.68	786.30	822.84	857.06	887.44	920.17	947.11	973.09	949.13	973.13	997.43	1,019.11	1,049.71	1,079.81	1,110.53	480.86	380.41	269.12	189.30	156.21	135.64	127.96	127.88	133.85	141.33	151.88	163.11	174.89
	(ડ)	Emp			\$ 411.51 \$	504.89	565.65	635.47	714.97	799.74	890.14	975.27	1,020,71	1,063.03	1,106.62	1,142.50	1,177.88	1,213.05	1,247.22	1,229.79	1,262.07	1,291.81	1,317.30	1,350.47	562.50	434.51	294.33	194.33	150.97	124.75	114.37	113.75	117.93	127.31	138.62	150.69	163.40
	(4)	oution Rate		With POB	9.37%	10.27% *	9.42% *	10.52% *	11.72% *	12.92% *	14.02% *	14.19% *	14.29% *	14.29% *	14.21% *	14.11% *	13.98% *	13.84%	13.66%	13.48%	13.25%	13.14%	13.00%	12.87%	2.36%	4.08%	2.78%	1.88%	1.49%	1.25%	1.13%	1.09%	1.09%	1.11%	1.15%	1.18%	1.22%
	(9)	Employer Contribution Rate		HB 2333	9.37%	10.27% *	11.27% *	12.37% *	13.57% *	14.77% *	15.97% *	16.96% *	17.16% *	17.26% *	17.25% *	17.18% *	17.08% *	16.96% *	16.80% *	16.62%	16.41%	16.17%	15.86%	15.65%	6.27%	4.66%	3.04%	1.93%	1.44%	1.15%	1.01%	0.97%	. %96.0	1.00%	1.05%	1.09%	1.14%
	(2)		Total	Payroll	\$ 4,391.75	4,535.95	4,668.66	4,814.29	4,971.08	5,138.05	5,315.15	5,502.86	5,701.82	5,912.23	6,133.19	6,364.33	6,606.19	6,859.09	7,123.55	7,399.97	7,688.78	7,990.01	8,303.69	8,630.79	8,971.62	9,326.24	9,695.31	10,079.36	10,478.46	10,893.57	11,325.89	11,776.61	12,248.24	12,742.53	13,259.06	13,796.65	14,354.13
	Ξ	i	Fiscal	Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045

^{*} Indicates additional contributions from ELARF are made.

S	\$ 865.39 \$ 8,832.82 \$ (477.03)
(3,332.47) \$ (1,342.42)	(1,342.42)
69	6-9
19,275.07	7,967.43
	69
22,607.54 \$	9,309.86
6-3	69
Total	Present Value at 8% as of July 1, 2012

This exhibit is an attachment to a letter that contains important information and explanations regarding the numbers shown. Therefore, the exhibit should only be considered with the accompanying letter from Cavanaugh Macdonald dated March 20, 2013.

All assumptions, including the 8% investment return, are assumed to be met each year in the future.