University of Waterloo Board of Governors PENSION & BENEFITS COMMITTEE Minutes of the 20 January 2017 Meeting

Present: Monika Bothwell, Stewart Forrest, Mary Hardy, Dennis Huber, Ranjini Jha, David Kibble, Ramesh Kumar, Alan Macnaughton, Ian Orchard, Marilyn Thompson, Christine Wagner, Karen Wilkinson

Regrets: Michael Steinmann

Administration: Lee Hornberger, Sarah Hadley

Consultants: Linda Byron, Nathan LaPierre, Allan Shapira

Secretariat: Mike Grivicic

Organization of Meeting: Karen Wilkinson took the chair and Mike Grivicic acted as secretary. The secretary advised that a quorum was present. The agenda was approved without formal motion.

1. MINUTES OF THE 8 DECEMBER 2016 MEETING AND BUSINESS ARISING

Members agreed to add greater detail on the indexing option approved in item 5. A motion was heard to approve the minutes as amended. Huber and Kibble. Carried. There was no business arising from the minutes.

2. EXECUTION AGAINST THE WORK PLAN

Minor adjustments were noted and the report was received for information.

3. UPDATE ON GOVERNMENT PENSION PLAN INITIATIVES

Shapira provided an update: some universities continue to express interest in joint pension plan, with some issues remaining to be addressed; Marshall consultation is expected to put out a paper in February, potentially with options on pension plan funding to be provided for comment, and new models may reduce solvency requirements that would help private plans while having a potential negative impact on public sector plans.

4. INVESTMENT STATUS OF THE PAYROLL PENSION PLAN

Sarah Hadley spoke to the material distributed: fully indexed investments; contribution sources and funding status; quarterly rebalancing of funds within plan. A member expressed approval at the indexing investment approach utilized for this plan.

5. ACTUARIAL VALUATION ASSUMPTIONS

Shapira and Byron provided a PowerPoint presentation to the committee: assumptions that will be utilized for the 1 January 2017 actuarial valuation of the Registered Pension Plan (RPP) and the Payroll Pension Plan (PPP); 2017 will be a filing year for the plan; entering stage 2 of the solvency process which will allow three years to make interest-only payments before running the plan on a going concern basis; assumptions including demographics, asset allocation, rates of return, termination/mortality rates, economic trends, and timing/length of liabilities; linking of inflation to assumptions e.g. CPI + 3.70% for discount rate; solvency and wind up calculations are prescribed. Members discussed: no significant changes to CPI methodology; estimation of administration expenses and practice of utilizing estimates on higher end of range. The committee heard a motion to approve the assumptions as outlined in the report with: CPI of 2.0%; 4.0% increase in pensionable earnings; discount rate of 3.50% real / 5.5% nominal; sensitivity analysis at 10 basis points; review of preliminary results to examine how to potentially include administration fees into the discount rate; no other changes to mortality tables, termination tables or other factors from 2016. Forrest and Kibble. Carried.

6. OPTIMIZATION COMPONENT OF ASSET-LIABILITY STUDY

Nathan LaPierre spoke to the distributed material and members discussed: consideration of asset classes in model; types of liability-matching investments included for consideration; some assets in the model do not have large and deep markets; exposure to emerging markets can be achieved directly or via Canadian/US equities, though this analysis only considers domicile of investment; detailing of constraints for optimization model; comparison of efficient frontier for optimization considers nominal returns and tail risk; inclusion of private debt in model may suffer from survivor bias; emerging market equities model in potential risks; not clear that increased liability

hedging would provide significant reduction to risk, according to stochastic modelling; if adopting liability hedging, discount rate would presumably be reduced; dynamic allocation of investment under liability hedging model is possible; combination of indices to approximate ACWI; assumptions including indexing approach and currency exposure, the latter of which actually appears to reduce risk in the model; sources of return from real estate category; model seems to demonstrate apparent tradeoffs in liquidity, opacity and rate of return; discussion of model portfolios; leveraged fixed income analysis appears to show how to reduce worst case, those it may be counter-intuitive that this occurs; main conclusions are that liability hedging has the biggest impact on reducing median contributions while optimizing return-seeking component with adding direct assets reduces the risk in the worst cases, while leveraged bonds appears to help both. Members questioned if a derivative could be utilized that mitigates downside risk while allowing for capping on the upside, and LaPierre observed that the upside may be needed and that the collar position would have to be entered into repeatedly. These matters will be considered further at a future meeting.

7. OTHER BUSINESS

Macnaughton observed the recent passing of changes to the Canada Pension Plan, and Shapira indicated that the impacts of this on the pension plan would need to be examined.

8. PROCEED INTO CONFIDENTIAL SESSION

With no additional business in open session, the committee proceeded into confidential session.

NEXT MEETING

The next meeting is on Friday 24 February 2017 from 9:30 a.m. – 12:00 p.m. in Needles Hall Room 3318.

16 February 2017

Mike Grivicic Assistant University Secretary