Minutes of the meeting held on March 11, 2020

Present: Francis Murphy - Chair, Jim Monagle, Nadia Chamblin-Foster, John Shinkwin, David Kale, Ellen Philbin, Rafik Ghazarian and Chris Burns.

Absent: Michael Gardner

The meeting was called to order at 11:09 AM. The meeting was digitally recorded.

Agenda Item # 1 – 2019 Performance Review

Ghazarian reviewed Segal Marco's written analysis of investment performance for the period ending December 31, 2019. Markets experienced strong returns in 2019, with US Equities up 31%. International Equities were also strong, returning 27.7%. Interest rate cuts drove fixed income returns. That asset class returned 8.7%. Kale asked about returns for the 2018-19 period. It appears, after factoring in losses from 2018, that the system will be slightly short of the expected 7.5% annual return over that period.

Ghazarian reviewed the system's current asset allocation. The consolidation of the Domestic Equity sleeve is now complete. All investments are now held in two index funds, the Russell 1000 managed by RhumbLine and the Russell 2000 managed by Mellon. The system is working on funding the new allocation to Bank Loans, managed by Pinebridge. Ghazarian stated that, given the extreme volatility in the markets right now, he would not want to speculate on where he would draw funds in order to fund Pinebridge. He said that Segal would prepare a report once the funding date gets closer. Kale noted that the legislature is currently considering a bill which would require public funds to divest from fossil fuels. He stated that he believes the bill stands a good chance of passage. He stated that the Board may wish to consider drawing down funds from those companies where the system is required to divest.

Reviewing Cambridge's returns in 2019, the total fund was valued at \$1.449 billion, representing a gain of 5.58% in the last quarter. For the full year, the fund returned 17.03%, which underperformed the policy index return of 17.9%. Returns might be subject to adjustment once all private equity funds report their returns. Ghazarian reported that the PRIT fund returned 16.6% in 2019. UBS has continued to underperform, returning -2.11% in 2019 vs. their benchmark at 6.08%. Ghazarian distributed a fee proposal that is being issued to all UBS clients. UBS is offering clients the option to "top-up" their accounts, by adding more money. Any additional amounts invested will not be subject to a management fee. Another option is a "loyalty incentive" where clients commit to keeping existing funds in the portfolio for some period of time. A client which commits to not moving money for three years will receive a 15% fee discount. A client which commits to not moving money for four years will receive a 25% fee discount. Ghazarian reminded the Board that Segal has rated the UBS fund as "hold" meaning that they would not recommend adding additional funds. No Segal clients have opted to take the top-up incentive. Some clients have opted for the loyalty commitment. Ghazarian reported that if Cambridge opted to withdraw funds from UBS, the exit queue is running between eight and ten quarters. The Chairman noted that Cambridge has invested with UBS for more than 25 years, and their long-term record is good. Given that the funds would not be available for at least two years anyway, the Chairman stated he would favor participating in the loyalty incentive. Shinkwin moved to commit all funds currently held by UBS to the 4-year loyalty program. Chamblin-Foster seconded the motion and it was voted unanimously.

Ghazarian stated that the system is now slightly under allocated to real estate. He reminded the Board that Rockwood is a closed-end fund that would likely terminate within the next two years, further reducing the allocation to real estate. He stated that he would favor an allocation to a value-

add manager of at least \$25 million. Ghazarian stated he would expect Rockwood and Landmark to respond to the RFP, but that there are a number of other firms currently in the market, raising funds for this type of investment. Shinkwin moved to issue an RFP as recommended by the consultant. Monagle seconded the motion and it was voted unanimously.

Bernard Horn and Michael Schantz represented RBC Global Asset Management. A written portfolio review was submitted to the Board. Schantz stated that Ashley Hyotte has left RBC and that he would take over as the relationship manager. Horn reviewed the performance of the portfolio. In 2019, the fund underperformed the benchmark, returning 20.35% net of fees, vs. the MSCI-EAFE Index at 22.66%. In response, Horn stated that he performed a comprehensive review of their January 2019 screens, in order to determine how certain high performing stocks had been missed. He stated that for 2020, he has implemented a more in-depth review of their investment universe. He discussed the recent impact of the COVID-19 pandemic on the markets. The firm made aggressive moves to sell a number of positions within the last two weeks. The fund is currently holding 11% of the portfolio in cash, and Horn stated that he may choose to hold even more cash. He stated that the cutback in civil interactions in order to contain the spread of the virus would have a significant impact on the economy, more than the actual number of fatalities. He discussed the impact on Chinese firms, stating that a number of firms were already struggling because they had to absorb the costs of American tariffs. He stated it was his belief that markets would continue to struggle at least through the second quarter, even if the virus can be contained fairly quickly. He stated that he was optimistic that Chinese workers are returning to their jobs. He stated that he felt the global economy was in a long-term deflationary period, driven by the availability of cheaper technology products. He also stated that he was skeptical that interest rate cuts and other fiscal stimulus would overcome people's fears about the virus, although it may help at the margin.

Michael Finocchi and Todd Vandam represented Loomis Sayles. A written portfolio review was submitted to the Board. There have been no changes to the portfolio team or investment strategy. Finocchi reported that Bob McManama has retired and that he would be the relationship manager going forward. That aside, there were no changes to the portfolio team or strategy. Over the last year, the portfolio has run behind the benchmark, returning 12.09% net of fees, vs. the BARC High Yield Index at 14.32%. Vandam noted that the portfolio had been defensively positioned entering 2019, where more risk would have been helpful in matching the benchmark. Cash drag was one factor, although cash only constitutes 1% of the portfolio. The energy sector was another drag. Even with rising oil prices, the high cost of production hurt returns. Vandam discussed the impact of the COVID-19 pandemic. He stated that he anticipated a dip, but that demand would return once supply chains are reestablished and the virus is brought under control. He saw the most likely outcome as a "shallow recession", likely over in six to nine months. The policy response to the virus would be critical. He also felt that another interest rate cut was likely, and other forms of stimulus such as tax cuts and quantitative easing, were also possible. He noted several ratings cuts which pushed a number of large firms into the high-yield space, including Heinz and Ford. Finocchi discussed Loomis' plans around minimizing their employees' exposure to COVID-19, and stated that they had practiced making a transition to allowing employees to work from home.

Brian Drainville, Earl McKennon and Melissa Moesman represented Fidelity Institutional Asset Management. A written portfolio report was submitted to the Board. Drainville reviewed the Emerging Markets Debt strategy. The last year was very challenging for the portfolio, following three years of very solid returns. The fund returned 6.89% net of fees, vs. the benchmark at 11.48%. The fall in interest rates drove fixed income returns across the board. Fidelity's relative underperformance was driven by the lack of long interest rate duration. 2019 saw significant outperformance form the highest-quality segment of the market, including countries such as Mexico and the Philippines. The Fidelity EMD portfolio did not have enough exposure to those countries. Argentina bonds were the single biggest detractor from performance. The fund has over

weighted Argentina going back to the last time the country restructured its debt in 2005. Argentina remains current on their debt, but Drainville expects that the government will issue some type of restructuring proposal within the next few months. In 2019, Argentina bonds fell by nearly 30%, but he felt that following that discount, the bonds now have some upside potential. To date, 2020 has seen similar patterns, with investment grade bonds returning about 1.5%, and riskier bonds losing 7%. In part, this is a reaction to uncertainly regarding oil prices and the COVID-19 virus. Drainville reminded the Board that many emerging market economies are heavily tied in to oil, and the recent drop in prices is likely to have an outsize impact. He stated that the fund was looking at short-term bonds issued by Nigeria. He noted the risk as Nigeria is a country heavily dependent on oil, but their stress testing shows that the country is likely able to pay. He stated that such bonds were paying above 7%, and compared them to bonds issued by more stable countries such as Peru, which now pay 2% annually for a 30-year bond. The portfolio is now holding 15% of the portfolio either in cash or US Treasuries. Drainville said he felt well positioned to take advantage of any buying opportunity.

Both Drainville and McKennon stated that they felt the current situation would be much more manageable than 2008, and compared the present circumstances to other disease outbreaks such as SARS and Ebola, where slight shocks were followed by a strong bounce back. McKennon reviewed the fixed income portfolio. There have been no changes to the portfolio management team, or investment strategy over the last year. Over the last year, the portfolio returned 10.52% net of fees vs. the Barclays US Aggregate at 9.64%. The portfolio has a strong record of outperformance since inception. Returns to date in 2020 are somewhat short of the benchmark, although still positive. He noted that the recent uncertainty around COVID-19 has resulted in a flight to quality. This is a market environment in which the portfolio will tend to underperform. McKennon stated that he is anticipating further interest rate cuts, and that the market has priced in the likelihood of rates going to zero before the end of the year. The portfolio has not made any significant changes to their holdings in reaction to the current market swings. At present the fund holds 33% US Treasuries vs. the index at 39.7%. McKennon said he would likely reduce that exposure going forward in order to pick up undervalued bonds. Moesman described Fidelity's current preparations, noting the advantage of their size and being able to work out of multiple office locations.

Brian Giuliano represented Brandywine. A written portfolio report was submitted to the Board. Giuliano noted that Brandywine has operated as a wholly owned subsidiary of Legg Mason, operating with complete autonomy. Within the last month, Franklin Templeton completed an acquisition of Legg Mason. Giuliano stated that he expects that Brandywine will retain the same autonomy under their new management. He noted that there were advantages to being with a bigger company, with a stronger balance sheet. Giuliano stated that one of the portfolio managers, Stephen S. Smith, would step back into an advisory role at the end of 2020. He stated that the change was planned and Anujeet Sareen would take over many of his functions. Over the last year, the portfolio returned 5.71% net of fees, which outperformed the benchmark return of 5.32%. Unfortunately, returns to date in 2020 have significantly underperformed. Giuliano stated that the portfolio has a policy not to own any negative-yielding bonds. He noted that this has hurt the portfolio, giving the example of the German Bund, which fell from -0.25% yield to -0.75%, driving up the price of the -0.25% bonds. Looking ahead, Giuliano stated that he anticipated excellent buying opportunities around emerging markets and commodities, but that he did not expect the markets to hit bottom for several months. He stated that the firm was taking the COVID-19 virus very seriously, and that the US response appears to have been completely inadequate to date. Consumer confidence, tourism and airlines have already taken significant hits. Other areas of the economy are likely to follow. Yields remain extremely low across the G-7. The portfolio owns no G-7 debt, with the exception of some Canadian bonds as a risk-control measure. He emphasized the higher yields coming from emerging markets and stated that he believes they are worth the risk. In the current environment, they may offer one of the few ways of getting a positive return after accounting for inflation. On

the currency side, the fund made a move to increase holdings of Japanese Yen, reducing Swedish Krone, Korean Won and the British Pound.

Matt Drasser and Matt O'Connell represented Income Research & Management. A written portfolio report was submitted to the Board. Drasser stated that there have been no changes to the portfolio team or strategy. Over the last year, the fund returned 9.57% net of fees, vs. the benchmark at 9.71%. Drasser said that returns were driven by falling interest rates. The firm has seen some clients making withdrawals form fixed income accounts as they try to keep their funds in balance. Drasser reminded the Board that a number of managers had been given C-level titles. He stated that there were no real changes in responsibility, but that the change of titles was part of the succession planning. In response to the COVID-19 pandemic, IRM is practicing on working from home, and making sure they are prepared to maintain operations if they cannot work from their office. Drasser said that the portfolio has adopted a defensive posture coming into 2019, but that riskier assets were in favor during the year. This accounts for the slight relative underperformance. The portfolio has maintained the defensive posture, which has benefited the portfolio since the recent turmoil in the markets. To date in 2020, the fund has returned 6.07% vs. the index at 5.43%. O'Connell reviewed the current composition of the portfolio. He noted a lack of liquidity in the markets and stated that he felt IRM was well positioned to take advantage, as there do not seem to be many buyers, and the firm is able to find bonds to buy at attractive valuations. He stated that the portfolio was remarkably unchanged throughout 2019, but that he expected to make some significant moves in the next weeks and months.

Wayne Owen and Jeff Kusmierz represented RhumbLine. A written portfolio report was submitted to the Board. Owen reported that Denise D'Entremont was promoted to President. He described the current process to be sure that RhumbLine is prepared to maintain operations in the event that employees must work from home. Kusmierz reviewed recent allocation changes and the performance of the portfolio. RhumbLine now manages funds held in the Russell 1000 fund, resulting from the combining of two other mandates in October 2019. RhumbLine also manages an MSCI EAFE Index fund, since November 2019. This replaced a similar fund managed by State Street. The Russell 1000 has positive returns to date, returning 10.5% although the last week has seen significant losses. The EAFE fund has returned 2.16% since inception. Kusmierz reviewed commissions and trade costs. The EAFE fund was transferred from State Street, partially in-kind. This helped to reduce the transition cost significantly. Owen noted that RhumbLine utilizes a number of women and minority owned brokers to execute trades. Kusmierz stated that he was anticipating a "deep, but quick" recession as a result of the pandemic, but that the fundamentals of the economy remained strong, which should result in a sharp recovery.

Shinkwin moved to adjourn at 3:10 PM.