

Submitted by: Dave Massaron, Chief Business Officer, Chief Financial Officer and Senior Vice President for Finance and Business Operations; Treasurer

Annual Report on the Cash Pool Investments and Debt Programs
For the Fiscal Year Ending September 30, 2021

In accordance with the Board of Governors Statutes (WSUCA) 2.73.03 and 2.73.04, the Administration presents the annual report of our cash pool investment and debt programs for the fiscal year ending September 30, 2021.

Cash Pool Investment Program

This annual report was prepared by Wayne State University's investment advisors, NEPC, LLC. At September 30, 2021, the cash pool was approximately \$592 million, and includes proceeds from Series 2018, 2019 and 2020 debt issuances. The main objective is to generate income to support the budget while protecting principal and maintaining sufficient liquidity.

The cash pool represents the cash reserves and working capital of the University and experiences variability in inflows and outflows throughout the fiscal year. Inflows are largely dependent on tuition and fees, sponsored programs and state appropriations. Outflows are driven by general disbursements, payroll and debt service payments. The University has access to \$50 million total line of credit facilities with two financial institutions that are used periodically throughout the year to support liquidity needs due to the cyclical nature of cash flows.

The cash pool is segregated into three tiers (Liquidity Pool, Liquidity Reserve Pool, and Diversified Pool), with each tier having a separate asset allocation with targeted thresholds and or ranges. Each tier also has its own time horizons and liquidity needs, therefore, they have different permissible asset classes, credit quality and maturity/interest rate risk characteristics. These risks are considered as part of the overall risk versus investment return characteristics of the aggregate investment portfolio when establishing its asset allocation and selecting its investment managers. Investments are managed in accordance with the investment policy and are monitored according to the risk versus investment return characteristics as compared to applicable benchmarks in the investment industry. Asset allocation is in compliance with the investment guidelines within the policy.

The cash pool portfolio's investment returns (realized and unrealized) were 5.5% for the fiscal year ending September 30, 2021. This was above the allocation index of 4.4%. Investment returns were strong in fiscal year 2021. Fixed income returns benefited from credit, dynamic and short duration strategies in the portfolio. Equity returns contributed to the portfolio as stock markets were supported by expansionary economic policies, ample liquidity, and the expectation of a continued global economic rebound.

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Debt Program

The University uses debt as a source of funds for capital projects that support its Mission. In assessing the use of debt, other financing and revenue sources are considered as well, including State appropriations, philanthropy, project generating revenues, grant revenues and other sources.

The University's outstanding bond debt as of September 30, 2021 was \$539 million. The University issued no new debt in 2021. All debt in the portfolio is fixed rate debt. Approximately \$18 million amortizes each year. The weighted average life of the portfolio is approximately 13 years and the average interest cost is 4.02%. All of the debt has a 10-year par call feature with the exception of Series 2018A bonds where certain maturities have a 7-year par call.

The University's debt is rated A+, with a stable outlook by S&P, and Aa3, with a negative outlook by Moody's.

The University has two basis swaps outstanding related to the Series 2015A bonds with a total notional amount of \$36.7 million as of September 30, 2021. The swaps have a combined positive mark-to-market of \$528 thousand as of September 30, 2021. The University has not had to post collateral. Since inception, the swaps have generated approximately \$2.5 million in cash receipts.

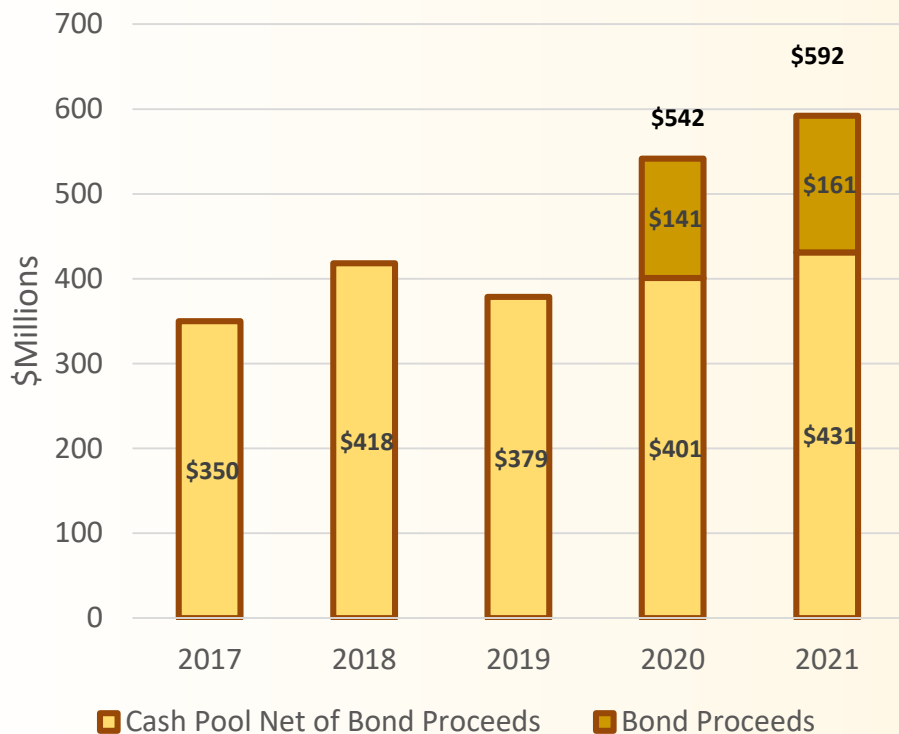
Reports attached:

- Wayne State University Cash Pool Investment Performance Report
- Performance Summary and Schedule of Long-Term Debt Outstanding & Bond Debt Service Schedule

The Cash Pool continues to provide sufficient liquidity for the University's operating needs

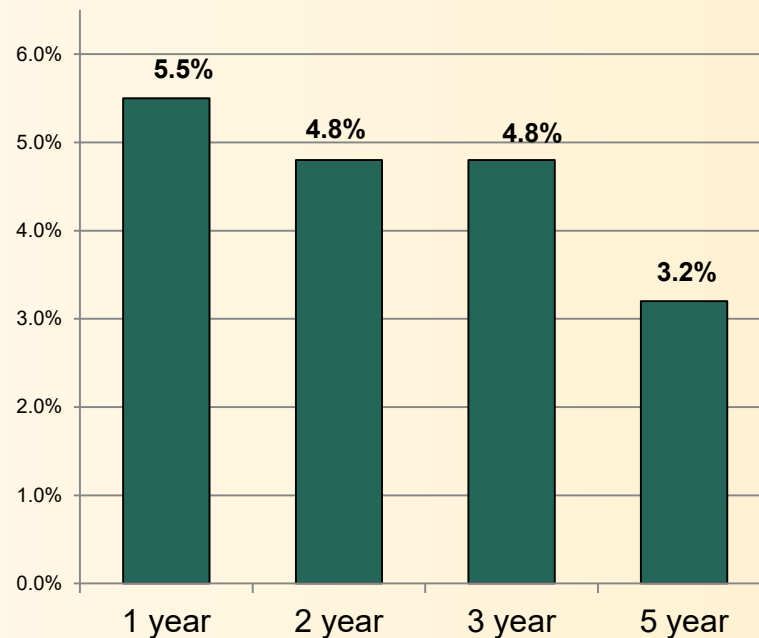
Total Investments*

(As of September 30, 2021)



Performance

(As of September 30, 2021)



Transition to new asset allocation complete October 2019
 Performance net of investment sub-manager fees
 *Excludes PEPPAP account

Wayne State University's Debt Portfolio

LONG-TERM DEBT OUTSTANDING (par amount)

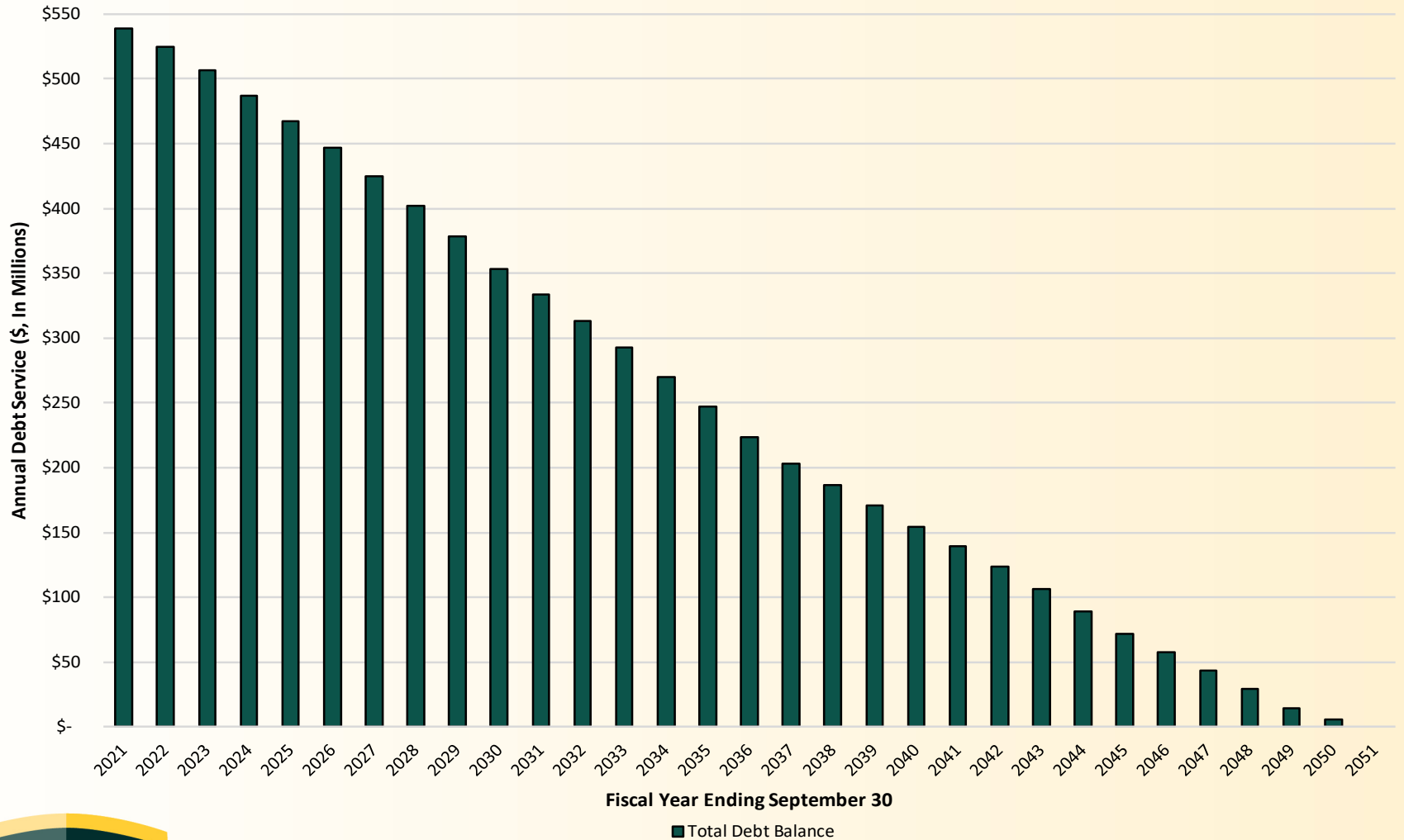
	<u>Balance 9/30/2021</u>	<u>Balance 11/30/2021</u>	Final Maturity	Type of Bond
	<i>(after Princ Payment & Defeasement & New debt)</i>			
Series 2020	114,985	112,330	2050	Taxable
Series 2019A	61,750	59,225	2039	Tax-exempt
Series 2019B	25,685	25,685	2049	Taxable
Series 2018A	118,415	116,375	2049	Tax-exempt
Series 2016A	86,730	83,695	2037	Tax-exempt
Series 2016B	9,255	8,790	2037	Taxable
Series 2015A	43,270	41,420	2036	Tax-exempt
Series 2013A	74,425	72,625	2044	Tax-exempt
Series 2007B	4,220	4,220	2030	Taxable
	\$ 538,735	\$ 524,365		

Principal payments every November

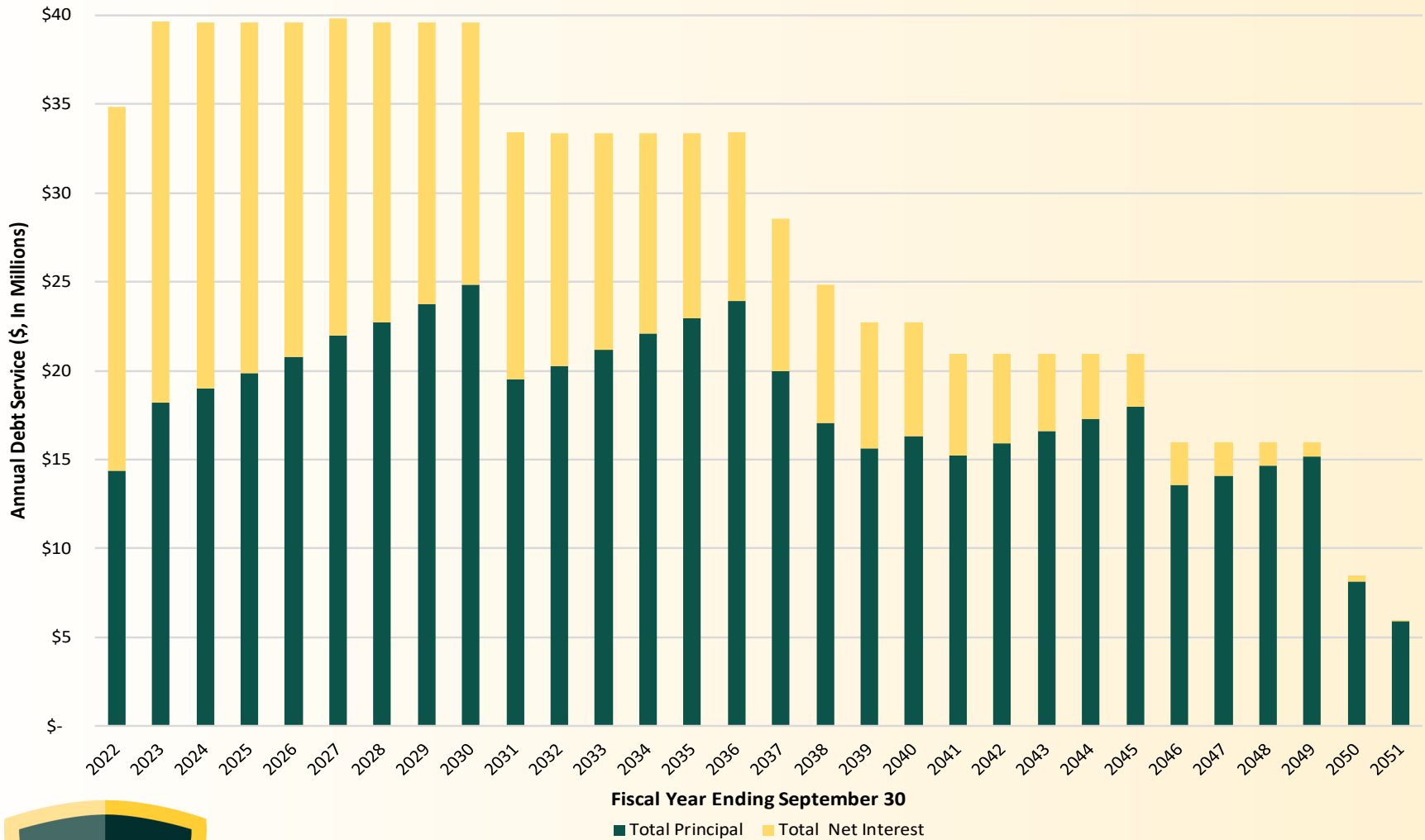
Interest payments every May & November



Wayne State University - Outstanding Bond Balances by Fiscal Year (as of 9/30/2021)



Wayne State University - Total Debt Service by Fiscal Year (as of 9/30/2021)

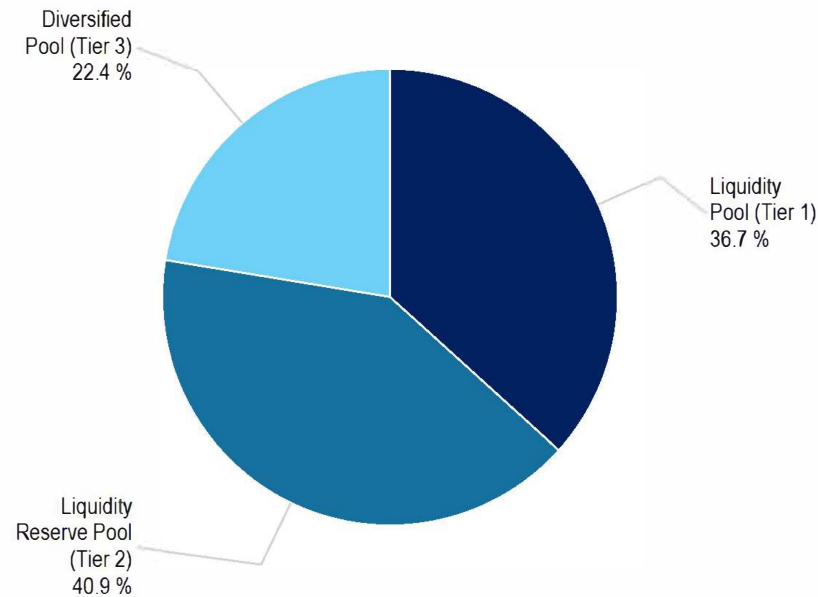


Wayne State Cash Pool

TOTAL FUND PERFORMANCE SUMMARY

	Market Value	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	Inception	Inception Date
Composite	\$592,273,282	0.2%	2.6%	5.5%	4.8%	4.8%	3.2%	2.8%	Mar-13
Allocation Index		0.1%	1.9%	4.4%	4.4%	4.8%	3.1%	2.5%	Mar-13
Liquidity Pool (Tier 1)	\$217,430,976	0.1%	0.2%	0.3%	0.6%	0.5%	0.5%	0.5%	Oct-11
Composite ex. Liquidity Pool	\$374,842,307	0.1%	3.4%	7.7%	6.4%	6.5%	4.3%	4.4%	Oct-11
Allocation Index		0.0%	2.3%	5.9%	5.9%	6.3%	3.9%	--	Oct-11
Policy Index		0.0%	2.4%	6.0%	5.8%	--	--	--	Oct-11
Liquidity Reserve Pool (Tier 2)	\$242,118,265	0.2%	0.9%	2.7%	3.8%	4.8%	3.3%	3.2%	Oct-11
Allocation Index		0.1%	-0.7%	-0.3%	2.2%	4.0%	2.4%	2.3%	Oct-11
Policy Index		0.1%	-0.7%	-0.3%	2.2%	3.8%	2.4%	2.3%	Oct-11
Diversified Pool (Tier 3)	\$132,724,042	-0.1%	8.5%	18.4%	11.8%	--	--	10.7%	Mar-19
Allocation Index		0.0%	8.8%	20.1%	13.3%	--	--	11.6%	Mar-19
Policy Index		0.0%	9.9%	20.1%	12.8%	--	--	11.5%	Mar-19

Allocation



Wayne State Cash Pool

TOTAL FUND PERFORMANCE DETAIL

Performance Summary (Net)

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Liquidity Pool (Tier 1)	217,430,976	100.00	0.06	0.16	0.28	0.56	0.49	0.53	0.47	Oct-11
Comerica Cash	42,947,166	19.75	0.00	0.00	0.00	0.00	0.00	0.00	0.03	Oct-11
Fifth Third Cash	76,282,822	35.08	0.00	0.00	0.00	0.00	0.00	0.00	0.03	Oct-11
PIMCO Short-Term Fund	51,126,670	23.51	0.15	0.37	0.72	1.73	1.80	2.11	1.78	Sep-12
<i>91 Day T-Bills</i>			<i>0.01</i>	<i>0.02</i>	<i>0.04</i>	<i>0.43</i>	<i>1.04</i>	<i>1.10</i>	<i>0.64</i>	<i>Sep-12</i>
MFB Northern Instl Fds Treas Portfolio Premier CL	3,454,739	1.59	0.00	0.01	0.01	0.34	--	--	0.76	Feb-19
Northern Ultra-Short Fixed Income Fd-NUSEFX	43,619,580	20.06	0.14	--	--	--	--	--	0.14	Jul-21
<i>Bloomberg US Govt/Credit 1-3 Yr. TR</i>			<i>0.09</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>0.09</i>	<i>Jul-21</i>

- Returns for longer than one year are annualized.
- Fiscal year begins October 1st.
- Returns are net of manager fees.



Wayne State Cash Pool

TOTAL FUND PERFORMANCE DETAIL

Performance Summary (Net)

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Liquidity Reserve Pool (Tier 2)	242,118,265	100.00	0.21	0.93	2.73	3.82	4.82	3.29	3.22	Oct-11
<i>Allocation Index</i>			0.06	-0.72	-0.32	2.20	3.99	2.42	2.33	Oct-11
<i>Policy Index</i>			0.06	-0.72	-0.32	2.21	3.81	2.38	2.32	Oct-11
Baird Short-Term Bond Fund-BSBIX	24,543,772	10.14	0.04	0.11	0.74	2.48	--	--	2.93	May-19
<i>Bloomberg US Govt/Credit 1-3 Yr. TR</i>			0.09	0.09	0.30	2.00	--	--	2.47	May-19
IR&M Short Fund LLC	24,502,524	10.12	0.06	0.16	0.62	2.68	--	--	3.05	May-19
<i>Bloomberg US Govt/Credit 1-3 Yr. TR</i>			0.09	0.09	0.30	2.00	--	--	2.47	May-19
JPMorgan Core Bonds	36,495,523	15.07	0.10	-0.95	0.21	3.44	5.70	3.30	3.31	Feb-12
<i>Bloomberg US Aggregate TR</i>			0.05	-1.55	-0.90	2.97	5.36	2.94	2.91	Feb-12
Doubleline Total Return	32,962,840	13.61	0.38	0.43	0.86	2.16	4.03	2.77	3.34	Oct-13
<i>Bloomberg US Aggregate TR</i>			0.05	-1.55	-0.90	2.97	5.36	2.94	3.35	Oct-13
Doubleline Low Duration	24,914,092	10.29	0.32	1.02	1.96	1.86	2.64	2.35	2.20	Feb-14
<i>Bloomberg US Govt/Credit 1-3 Yr. TR</i>			0.09	0.09	0.30	2.00	2.87	1.89	1.61	Feb-14
Loomis Sayles Credit Asset Trust B	51,606,465	21.31	0.40	3.15	7.63	7.37	--	--	6.92	Sep-19
<i>Bloomberg US Aggregate TR</i>			0.05	-1.55	-0.90	2.97	--	--	2.59	Sep-19
PIMCO Dynamic Bond Fund	46,980,151	19.40	0.06	1.20	3.61	4.33	--	--	3.57	May-19
<i>3-Month Libor Total Return USD</i>			0.02	0.11	0.17	0.61	--	--	0.90	May-19
<i>Bloomberg US Aggregate TR</i>			0.05	-1.55	-0.90	2.97	--	--	4.70	May-19
MFB Northern Instl Fds Treas Portfolio Premier CL	112,900	0.05	0.00	0.01	0.01	0.33	--	--	0.73	Mar-19
<i>91 Day T-Bills</i>			0.01	0.02	0.04	0.43	--	--	0.83	Mar-19

- **Policy Benchmark:** Currently 30% Bloomberg US Govt/Credit 1-3 Year, 50% Bloomberg US Aggregate, and 20% 3-Month Libor Total Return.
- Returns for longer than one year are annualized.
- Fiscal year begins October 1st.
- Returns are net of manager fees.
- Baird Short-Term Bond Fund and IR&M Short Fund LLC and their respective benchmarks were changed from intermediate duration to short term duration effective May 2019.



Wayne State Cash Pool

TOTAL FUND PERFORMANCE DETAIL

Performance Summary (Net)

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Diversified Pool (Tier 3)	132,724,042	100.00	-0.09	8.55	18.39	11.80	--	--	10.72	Mar-19
Allocation Index			-0.01	8.84	20.09	13.34	--	--	11.61	Mar-19
Policy Index			-0.03	8.92	20.05	12.82	--	--	11.51	Mar-19
Total Equity	61,055,962	46.00	-1.67	10.43	24.01	17.63	--	--	16.09	Mar-19
Total Equity Allocation Index			-0.87	11.69	28.49	18.80	--	--	15.91	Mar-19
SSgA S&P 500	21,920,685	16.52	0.59	15.92	30.01	22.30	--	--	19.06	May-19
S&P 500			0.58	15.92	30.00	22.35	--	--	19.12	May-19
SSgA MSCI EAFE Index NL CTF	2,653,068	2.00	-0.47	8.31	25.67	12.30	--	--	9.96	May-19
MSCI EAFE			-0.45	8.35	25.73	12.41	--	--	10.05	May-19
William Blair Emerging Markets Growth Fd LLC	3,309,151	2.49	-5.54	4.29	22.95	28.20	--	--	24.27	Mar-19
MSCI Emerging Markets			-8.09	-1.25	18.20	14.31	--	--	9.67	Mar-19
Lindsell Train Global Equity	6,454,819	4.86	-5.13	1.43	14.57	9.96	--	--	11.79	Mar-19
MSCI World			-0.01	13.04	28.82	19.26	--	--	17.19	Mar-19
GQG Global Equity	8,474,335	6.38	-0.59	12.05	12.10	18.10	--	--	17.17	Mar-19
MSCI ACWI			-1.05	11.12	27.43	18.63	--	--	16.27	Mar-19
SSgA MSCI ACWI IMI	6,131,197	4.62	-1.08	11.54	29.10	19.02	--	--	15.50	May-19
MSCI ACWI			-1.05	11.12	27.43	18.63	--	--	15.29	May-19
Kabouter Int'l Opps Offshore Fund II Ltd.	4,709,095	3.55	-3.88	--	--	--	--	--	2.37	Apr-21
MSCI EAFE Small Cap			0.89	--	--	--	--	--	5.28	Apr-21
SSgA Russell Small Cap Completeness Index NL CTF	4,695,399	3.54	--	--	--	--	--	--	-1.86	Aug-21
Russell Small Cap Completeness			--	--	--	--	--	--	-1.85	Aug-21
UBS Emerging Markets Equity Opp Fd CI P2	2,708,214	2.04	--	--	--	--	--	--	-1.56	Aug-21
MSCI Emerging Markets			--	--	--	--	--	--	-1.46	Aug-21

- Policy Benchmark:** Currently 12% S&P 500, 5% MSCI EAFE, 5% MSCI ACWI ex USA, 3% MSCI Emerging Markets, 3% MSCI Emerging Markets Small Cap, 17% MSCI ACWI, 7.5% ICE Bank of America ML 0-5 Years US High Yield Constrained, 17.5% Bloomberg US Aggregate, 5% Bloomberg US Treasury, 5% HFRI Equity Hedge (Total) Index, 5% HFRI ED: Distressed/Restructuring Index, and 15% SSgA Custom Benchmark



Wayne State Cash Pool

TOTAL FUND PERFORMANCE DETAIL

Performance Summary (Net)

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Total Fixed Income	40,485,125	30.50	0.46	2.51	7.37	5.66	--	--	6.37	Mar-19
<i>Total Fixed Income Allocation Index</i>			<i>0.20</i>	<i>0.14</i>	<i>1.98</i>	<i>3.73</i>	<i>--</i>	<i>--</i>	<i>5.08</i>	<i>Mar-19</i>
Arena Short Duration High Yield Series A	9,689,467	7.30	1.99	11.74	22.41	9.90	--	--	8.35	Mar-19
<i>ICE BofA 0-5 Yrs US High Yield Constrained TR</i>			<i>0.77</i>	<i>5.52</i>	<i>11.77</i>	<i>5.63</i>	<i>--</i>	<i>--</i>	<i>5.43</i>	<i>Mar-19</i>
John Hancock Income Fund	23,498,891	17.71	-0.01	0.11	4.01	4.53	--	--	5.96	Mar-19
<i>Bloomberg US Aggregate TR</i>			<i>0.05</i>	<i>-1.55</i>	<i>-0.90</i>	<i>2.97</i>	<i>--</i>	<i>--</i>	<i>5.17</i>	<i>Mar-19</i>
SSgA 3-10 Year Treasury Index	7,296,767	5.50	-0.06	-1.96	-2.39	2.52	--	--	4.07	May-19
<i>Bloomberg US Treasury 3-10 Yr</i>			<i>-0.05</i>	<i>-1.93</i>	<i>-2.35</i>	<i>2.58</i>	<i>--</i>	<i>--</i>	<i>4.11</i>	<i>May-19</i>
Total Multi-Asset	11,495,543	8.66	2.71	7.82	11.18	-0.30	--	--	1.24	Mar-19
<i>Total Multi-Asset Allocation Index</i>			<i>-0.23</i>	<i>13.19</i>	<i>27.39</i>	<i>15.56</i>	<i>--</i>	<i>--</i>	<i>12.00</i>	<i>Mar-19</i>
Renaissance Institutional Equities Fund LLC - Series B	4,822,228	3.63	5.28	6.38	3.03	-5.88	--	--	-2.31	Mar-19
<i>HFRI Equity Hedge (Total) Index</i>			<i>-0.85</i>	<i>11.01</i>	<i>27.54</i>	<i>17.60</i>	<i>--</i>	<i>--</i>	<i>13.57</i>	<i>Mar-19</i>
<i>S&P 500</i>			<i>0.58</i>	<i>15.92</i>	<i>30.00</i>	<i>22.35</i>	<i>--</i>	<i>--</i>	<i>20.50</i>	<i>Mar-19</i>
Canyon Realization Fund	6,673,315	5.03	0.92	8.88	17.93	4.04	--	--	3.70	Mar-19
<i>HFRI ED: Distressed/Restructuring Index</i>			<i>0.21</i>	<i>14.83</i>	<i>27.18</i>	<i>13.27</i>	<i>--</i>	<i>--</i>	<i>9.86</i>	<i>Mar-19</i>
Total Real Assets	19,382,788	14.60	2.07	15.66	28.62	11.12	--	--	9.39	May-19
<i>Total Real Assets Allocation Index</i>			<i>2.11</i>	<i>15.99</i>	<i>29.19</i>	<i>10.88</i>	<i>--</i>	<i>--</i>	<i>9.29</i>	<i>May-19</i>
SSgA Liquid Real Assets	19,382,788	14.60	2.07	15.66	28.62	11.12	--	--	9.39	May-19
<i>SSgA Custom Benchmark</i>			<i>2.11</i>	<i>15.99</i>	<i>29.19</i>	<i>10.88</i>	<i>--</i>	<i>--</i>	<i>9.29</i>	<i>May-19</i>
Cash	304,623	0.23	0.00	0.01	0.02	0.33	--	--	0.73	Mar-19
<i>Cash Allocation Index</i>			<i>0.01</i>	<i>0.02</i>	<i>0.04</i>	<i>0.43</i>	<i>--</i>	<i>--</i>	<i>0.83</i>	<i>Mar-19</i>
MFB Northern Instl Fds Treas Portfolio Premier CL			0.00	0.01	0.02	0.33	--	--	0.73	Mar-19
<i>91 Day T-Bills</i>			<i>0.01</i>	<i>0.02</i>	<i>0.04</i>	<i>0.43</i>	<i>--</i>	<i>--</i>	<i>0.83</i>	<i>Mar-19</i>

- **SSgA Custom Benchmark** is: 25% Bloomberg Roll Select Commodity Index, 25% S&P Global LargeMid Cap Commodity and Resources Index, 10% S&P Global Infrastructure Index, 15% Dow Jones US Select REIT, and 25% Bloomberg Barclays US TIPS.
- Returns for longer than one year are annualized.
- Fiscal year begins October 1st.
- Returns are net of manager fees.

