

# **A CASH-FLOW FOCUS FOR ENDOWMENTS AND TRUSTS**

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**ONLINE SUPPLEMENTAL MATERIAL**

A CASH-FLOW FOCUS FOR ENDOWMENTS AND TRUSTS

APPENDIX A: FECUNDITY CALCULATIONS FOR THE SMITH FAMILY TRUST

End of Year	Smith Trust Market Value				B/B Muni Index Fecundity				S&P 500 Fecundity				Smith Trust Fecundity				(O)	(P)	(Q)
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)			
	Bond Market Value (millions)	Equity Market Value (millions)	Total Market Value (millions)	BBMI Muni Yield	Trailing 3-Year Inflation	Real Yield (D - E)	S&P 500 Close	Trailing S&P Divd	% Equity Fecundity (130% of H + G)	Bond Fecundity (A * F)	Equity Fecundity (B * J)	Total Fecundity (J + K)	End of Year CPI ('87=base)	Real Total Fecundity (L + M)	Real Total Fecundity (Avg = 100)	Real Market Value (millions)	Real Market Value (1980 = 100)		
1980	\$1,184	\$6,800	\$7,984	10.25%	11.59%	-1.34%	135.76	\$6.16	5.90%	(\$15,866)	\$401,113	\$385,248	258.40	\$385,248	78.96	\$7,984	100		
1981	\$0,883	\$6,820	\$7,704	13.23%	11.56%	1.67%	122.55	6.63	7.03%	\$14,728	\$479,669	\$494,398	281.50	\$453,827	93.02	\$7,071	89		
1982	\$1,030	\$8,233	\$9,263	9.60%	8.36%	1.24%	140.64	6.87	6.35%	\$12,776	\$522,841	\$535,617	292.40	\$473,336	97.02	\$8,186	103		
1983	\$1,030	\$9,790	\$10,820	9.67%	5.49%	4.18%	164.93	7.09	5.59%	\$43,090	\$547,127	\$590,217	303.50	\$502,511	103.00	\$9,213	115		
1984	\$1,103	\$9,381	\$10,484	9.84%	3.86%	5.98%	167.24	7.53	5.85%	\$65,979	\$549,094	\$615,073	315.50	\$503,755	103.25	\$8,586	108		
1985	\$1,284	\$11,930	\$13,214	8.41%	3.85%	4.56%	211.28	7.90	4.86%	\$58,598	\$579,887	\$638,486	327.40	\$503,924	103.29	\$10,429	131		
1986	\$1,434	\$13,380	\$14,815	7.01%	2.94%	4.07%	242.17	8.28	4.44%	\$58,369	\$594,734	\$653,103	331.10	\$509,701	104.47	\$11,562	145		
1987	\$2,443	\$12,458	\$14,902	7.94%	3.10%	4.84%	247.08	8.81	4.64%	\$118,205	\$577,489	\$695,694	345.70	\$520,010	106.58	\$11,139	140		
1988	\$2,512	\$14,150	\$16,663	7.36%	3.31%	4.05%	277.72	9.73	4.55%	\$101,837	\$644,496	\$746,333	360.90	\$534,365	109.53	\$11,930	149		
1989	\$2,806	\$16,874	\$19,680	6.90%	4.50%	2.40%	353.40	11.05	4.06%	\$67,261	\$685,907	\$753,169	377.60	\$515,410	105.64	\$13,468	169		
1990	\$2,902	\$15,827	\$18,729	6.84%	5.06%	1.78%	330.22	12.10	4.76%	\$51,787	\$753,308	\$805,694	400.90	\$519,310	106.44	\$12,072	151		
1991	\$3,148	\$20,534	\$23,682	5.96%	4.60%	1.36%	417.09	12.20	3.80%	\$42,784	\$780,794	\$823,578	413.00	\$515,285	105.62	\$14,817	166		
1992	\$3,291	\$21,074	\$24,365	5.33%	4.01%	1.31%	495.71	12.38	3.69%	\$43,228	\$778,432	\$821,660	425.20	\$499,334	102.35	\$14,807	165		
1993	\$3,610	\$21,419	\$25,030	4.82%	2.90%	1.92%	466.45	12.58	3.51%	\$69,270	\$750,979	\$820,249	436.80	\$485,239	99.46	\$14,807	165		
1994	\$4,013	\$20,033	\$24,046	6.36%	2.78%	3.58%	459.27	13.18	3.73%	\$143,690	\$747,362	\$891,052	448.40	\$513,488	105.25	\$13,857	174		
1995	\$4,605	\$25,262	\$29,866	5.05%	2.65%	2.39%	615.93	13.79	2.91%	\$110,244	\$735,251	\$845,495	459.90	\$475,051	97.37	\$16,781	210		
1996	\$4,877	\$29,718	\$34,595	5.20%	2.85%	2.36%	740.74	14.90	2.61%	\$114,978	\$777,117	\$892,094	475.00	\$485,299	99.47	\$18,820	236		
1997	\$5,822	\$37,458	\$43,280	4.70%	2.52%	2.18%	970.43	15.49	2.08%	\$126,690	\$777,268	\$903,958	483.20	\$483,408	99.08	\$23,145	290		
1998	\$7,028	\$42,105	\$49,133	4.42%	2.21%	2.21%	1,229.23	16.20	1.71%	\$155,194	\$721,371	\$876,566	491.00	\$461,313	94.55	\$25,858	324		
1999	\$7,036	\$43,412	\$50,449	5.46%	2.00%	3.46%	1,469.25	16.69	1.48%	\$243,787	\$641,087	\$884,874	504.10	\$453,584	92.97	\$25,860	324		
2000	\$7,846	\$46,603	\$54,449	4.76%	2.56%	2.20%	1,320.28	16.27	1.60%	\$172,870	\$746,586	\$919,456	521.10	\$455,935	93.45	\$27,000	338		
2001	\$8,174	\$41,817	\$49,990	4.52%	2.54%	1.98%	1,148.08	15.74	1.78%	\$161,668	\$745,287	\$906,955	529.20	\$442,852	90.77	\$24,409	306		
2002	\$8,869	\$34,609	\$43,478	3.70%	2.44%	1.26%	879.82	16.07	2.37%	\$111,844	\$821,787	\$933,632	541.90	\$445,194	91.25	\$20,732	260		
2003	\$8,666	\$41,891	\$50,558	3.56%	1.94%	1.63%	1,111.92	17.38	2.03%	\$140,961	\$851,225	\$992,187	552.10	\$464,374	95.18	\$23,663	296		
2004	\$8,700	\$44,169	\$52,869	3.64%	2.50%	1.14%	1,211.92	19.43	2.08%	\$99,083	\$920,577	\$1,019,660	570.10	\$462,165	94.73	\$23,963	300		
2005	\$8,732	\$44,301	\$53,033	3.94%	2.85%	1.09%	1,248.29	22.22	2.31%	\$94,972	\$1,025,140	\$1,120,112	589.40	\$491,070	100.65	\$23,250	291		
2006	\$8,865	\$49,465	\$58,330	3.94%	3.07%	0.87%	1,418.30	24.88	2.28%	\$77,432	\$1,128,039	\$1,205,472	604.50	\$515,292	105.62	\$24,934	312		
2007	\$8,773	\$49,545	\$58,319	4.00%	3.34%	0.66%	1,468.36	27.73	2.46%	\$57,478	\$1,216,364	\$1,273,842	629.17	\$523,163	107.23	\$23,951	300		
2008	\$8,517	\$32,336	\$40,852	4.50%	2.23%	2.28%	903.25	28.39	4.09%	\$194,119	\$1,321,247	\$1,515,367	629.75	\$621,787	127.45	\$16,763	210		
2009	\$8,710	\$38,466	\$47,176	3.62%	2.29%	1.34%	1,115.10	22.41	2.61%	\$116,531	\$1,004,970	\$1,121,501	646.89	\$447,985	91.82	\$18,845	236		
2010	\$8,213	\$38,861	\$47,074	3.80%	1.43%	2.37%	1,257.64	22.72	2.35%	\$194,271	\$912,667	\$1,106,939	656.56	\$435,652	89.29	\$18,527	232		

(Continued)

**APPENDIX A: FECUNDITY CALCULATIONS FOR THE SMITH FAMILY TRUST (CONTINUED)**

End of Year	Smith Trust Market Value			B/B Muni Index Fecundity			S&P 500 Fecundity			Smith Trust Fecundity									
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)			
	Bond Market Value (millions)	Equity Market Value (millions)	Total Market Value (millions)	BBMI Muni Yield	Trailing 3-Year Inflation	Real Yield (D - E)	S&P 500 Close	Trailing S&P Div'd	% Equity Fecundity (130% of (H + G))	Bond Fecundity (A * F)	Equity Fecundity (B * I)	Total Fecundity (J + K)	End of Year CPI ('87 base)	Real Total Fecundity (L + M)	Real Total Fecundity (Avg = 100)	Real Market Value (millions)	Real Market Value (1980 = 100)		
2011	\$8,823	\$37,619	\$46,442	2.82%	2.39%	0.43%	1,257.60	26.43	2.73%	\$37,545	\$1,027,791	\$1,065,337	676.01	\$407,215	83.47	\$17,752	222		
2012	\$9,042	\$42,400	\$51,442	2.17%	2.06%	0.10%	1,426.19	31.24	2.85%	\$9,183	\$1,207,369	\$1,216,552	687.78	\$457,059	93.68	\$19,327	242		
2013	\$7,961	\$52,001	\$59,962	3.15%	2.07%	1.08%	1,848.36	34.99	2.46%	\$86,296	\$1,279,721	\$1,366,017	698.11	\$505,620	103.64	\$22,195	278		
2014	\$6,377	\$54,573	\$62,950	2.09%	1.33%	0.76%	2,058.90	39.44	2.49%	\$63,803	\$1,359,015	\$1,422,818	703.39	\$522,690	107.13	\$23,125	290		
2015	\$8,233	\$53,544	\$61,777	2.11%	1.00%	1.12%	2,043.94	43.38	2.76%	\$92,128	\$1,477,318	\$1,569,446	708.52	\$572,380	117.32	\$22,530	282		
													Averages:	\$487,884	100.00				
													Sums:	17,563,829	3,600				

