NORTHERN FUNDS QUICK REFERENCE GUIDE AS OF 12/31/18

EQUITY FUNDS	Ticker Symbol	Morningstar Category	Benchmarks	Portfolio Managers	Net Expense Ratio³	Inception Date	Fund #	CUSIP⁴	AUM in Millions
Active M Emerging Markets Equity	NMMEX	Diversified Emerging Markets	MSCI Emerging Markets	C. Vella, CIO	1.10%	11/19/08	647	665162483	\$ 863.3
Active M International Equity	NMIEX	Foreign Large Blend	MSCI World Ex-USA IM	C. Vella, CIO	0.85%	6/22/06	637	665162558	\$ 1,017.6
Emerging Markets Equity Index	NOEMX	Diversified Emerging Markets	MSCI Emerging Markets	S. Santiccioli	0.31%	4/25/06	636	665162582	\$ 2,333.7
Global Real Estate Index	NGREX	Global Real Estate	MSCI ACWI IMI Core Real Estate/ FTSE® EPRA®/NAREIT® Global 1	T. O'Brien	0.50%	7/26/06	640	665162541	\$ 1,571.6
Global Sustainability Index	NSRIX	World Large Stock	MSCI World ESG Leaders	T. O'Brien	0.30%	3/5/08	644	665130308	\$ 445.3
Global Tactical Asset Allocation	BBALX	World Allocation	Asset Allocation Blend	B. Browne/D. Phillips/J. McDonald	0.63%	7/1/93	654	665162392	\$ 88.0
Income Equity	NOIEX	Large Value	S&P 500®	J. Sampson/R. LeMar/S. Kancharla	1.01%	4/1/94	602	665162202	\$ 177.8
International Equity	NOIGX	Foreign Large Value	MSCI World ex USA/MSCI EAFE® 2	M. Sodergren	0.51%	4/1/94	609	665162509	\$ 188.6
International Equity Index	NOINX	Foreign Large Blend	MSCI EAFE®	S. Santiccioli	0.25%	3/22/05	630	665130209	\$ 4,758.5
Large Cap Core	NOLCX	Large Value	S&P 500 [®]	M. Sodergren	0.46%	12/16/05	635	665162590	\$ 223.9
Large Cap Value	NOLVX	Large Value	Russell 1000® Value	S. Kancharla/M. Sodergren	0.58%	8/3/00	632	665162632	\$ 79.5
Mid Cap Index	NOMIX	Mid-Cap Blend	S&P MidCap® 400	B. Reeder	0.15%	3/22/05	629	665130100	\$ 1,956.2
Multi-Manager Global Listed Infrastructure	NMFIX	Infrastructure	S&P Global Infrastructure	C. Vella, CIO	1.01%	9/18/12	655	665162384	\$ 963.3
Multi-Manager Global Real Estate	NMMGX	Global Real Estate	FTSE® EPRA®/NAREIT® Developed	C. Vella, CIO	0.93%	11/19/08	646	665162475	\$ 68.3
Northern Engage360™	NENGX	World Large Stock	MSCI ACWI Index	C. Vella, CIO/J. Hart	0.70%	11/20/17	662	665162319	\$ 204.5
Small Cap Core	NSGRX	Small Blend	Russell 2000®	R. Bergson	0.65%	9/30/99	628	665162665	\$ 395.5
Small Cap Index	NSIDX	Small Blend	Russell 2000®	B. Reeder	0.15%	9/3/99	624	665162723	\$ 1,034.2
Small Cap Value	NOSGX	Small Value	Russell 2000® Value	R. Bergson	1.00%	4/1/94	603	665162400	\$ 2,689.7
Stock Index	NOSIX	Large Blend	S&P 500®	B. Reeder	0.10%	10/7/96	618	665162772	\$ 7,404.4
U.S. Quality ESG	NUESX	Large Blend	Russell 1000®	J. Sampson/P. Zymali	0.43%	10/2/17	661	665162327	\$ 29.4
o.o. quality Loo	NOLSA	Earge biend	Kussell 1000	J. Sampson/ P. Zyman	0.4370	10/2/17	001	000102027	
FIXED INCOME FUNDS	Ticker Symbol	Morningstar Category	Benchmarks	Portfolio Managers	Net Expense Ratio ³	Inception Date	Fund #	CUSIP ⁴	AUM in Millions
	Ticker				Net	Inception			
FIXED INCOME FUNDS	Ticker Symbol	Morningstar Category	Benchmarks	Portfolio Managers	Net Expense Ratio ³	Inception Date	Fund #	CUSIP⁴	in Millions
FIXED INCOME FUNDS Arizona Tax-Exempt	Ticker Symbol NOAZX	Morningstar Category Muni Single State Intermediate	Benchmarks Bloomberg Barclays Arizona Municipal Bond	Portfolio Managers F. Azar/N. Miller	Net Expense Ratio ³ 0.47%	Inception Date 10/1/99	Fund # 622	CUSIP ⁴ 665162764	in Millions \$ 110.4
FIXED INCOME FUNDS Arizona Tax-Exempt Bond Index	Ticker Symbol NOAZX NOBOX	Morningstar Category Muni Single State Intermediate Intermediate-Term Bond	Benchmarks Bloomberg Barclays Arizona Municipal Bond Bloomberg Barclays U.S. Aggregate Bond	Portfolio Managers F. Azar/N. Miller L. D'Arienzo/B. Ferguson	Net Expense Ratio ³ 0.47% 0.15%	Inception Date 10/1/99 2/27/07	Fund # 622 641	CUSIP ⁴ 665162764 665162533	in Millions \$ 110.4 \$ 3,058.3
FIXED INCOME FUNDS Arizona Tax-Exempt Bond Index CA Intermediate Tax-Exempt	Ticker Symbol NOAZX NOBOX NCITX	Morningstar Category Muni Single State Intermediate Intermediate-Term Bond Muni CA Intermediate	Benchmarks Bloomberg Barclays Arizona Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays CA Intermediate Municipal Bond	Portfolio Managers F. Azar/N. Miller L. D'Arienzo/B. Ferguson F. Azar/A. Shane	Net Expense Ratio ³ 0.47% 0.15% 0.46%	Inception Date 10/1/99 2/27/07 10/1/99	Fund # 622 641 621	CUSIP ⁴ 665162764 665162533 665162749	in Millions \$ 110.4 \$ 3,058.3 \$ 453.8
FIXED INCOME FUNDS Arizona Tax-Exempt Bond Index CA Intermediate Tax-Exempt CA Tax-Exempt	Ticker Symbol NOAZX NOBOX NCITX NCATX	Morningstar Category Muni Single State Intermediate Intermediate-Term Bond Muni CA Intermediate Muni CA Long	Benchmarks Bloomberg Barclays Arizona Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Municipal Bond	Portfolio Managers F. Azar/N. Miller L. D'Arienzo/B. Ferguson F. Azar/A. Shane F. Azar/A. Shane	Net Expense Ratio ³ 0.47% 0.15% 0.46% 0.47%	Inception Date 10/1/99 2/27/07 10/1/99 4/8/97	Fund # 622 641 621 623	CUSIP ⁴ 665162764 665162533 665162749 665162731	in Millions \$ 110.4 \$ 3,058.3 \$ 453.8 \$ 177.3
FIXED INCOME FUNDS Arizona Tax-Exempt Bond Index CA Intermediate Tax-Exempt CA Tax-Exempt Core Bond	Ticker Symbol NOAZX NOBOX NCITX NCATX NOCBX	Morningstar Category Muni Single State Intermediate Intermediate-Term Bond Muni CA Intermediate Muni CA Long Intermediate-Term Bond	Benchmarks Bloomberg Barclays Arizona Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays U.S. Aggregate Bond	Portfolio Managers F. Azar/N. Miller L. D'Arienzo/B. Ferguson F. Azar/A. Shane F. Azar/A. Shane B. Camden/D. Personette	Net Expense Ratio ³ 0.47% 0.15% 0.46% 0.47% 0.42%	Inception Date 10/1/99 2/27/07 10/1/99 4/8/97 3/29/01	Fund # 622 641 621 623 657	CUSIP ⁴ 665162764 665162533 665162749 665162731 665162376	in Millions \$ 110.4 \$ 3,058.3 \$ 453.8 \$ 177.3 \$ 281.9
FIXED INCOME FUNDS Arizona Tax-Exempt Bond Index CA Intermediate Tax-Exempt CA Tax-Exempt Core Bond Fixed Income	Ticker Symbol NOAZX NOBOX NCITX NCATX NOCBX NOFIX	Morningstar Category Muni Single State Intermediate Intermediate-Term Bond Muni CA Intermediate Muni CA Long Intermediate-Term Bond Intermediate-Term Bond	Benchmarks Bloomberg Barclays Arizona Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Aggregate Bond	Portfolio Managers F. Azar/N. Miller L. D'Arienzo/B. Ferguson F. Azar/A. Shane F. Azar/A. Shane B. Camden/D. Personette B. Carden/D. Personette	Net Expense Ratio ³ 0.47% 0.15% 0.46% 0.47% 0.42% 0.46%	Inception Date 10/1/99 2/27/07 10/1/99 4/8/97 3/29/01 4/1/94	Fund # 622 641 621 623 657 605	CUSIP ⁴ 665162764 665162533 665162749 665162731 665162376 665162806	in Millions \$ 110.4 \$ 3,058.3 \$ 453.8 \$ 453.8 \$ 177.3 \$ 281.9 \$ 1,158.2
FIXED INCOME FUNDS Arizona Tax-Exempt Bond Index CA Intermediate Tax-Exempt CA Tax-Exempt Core Bond Fixed Income High Yield Fixed Income	Ticker Symbol NOAZX NOBOX NCITX NCATX NOCBX NOFIX NHFIX	Morningstar Category Muni Single State Intermediate Intermediate-Term Bond Muni CA Intermediate Muni CA Long Intermediate-Term Bond Intermediate-Term Bond High Yield Bond	Benchmarks Bloomberg Barclays Arizona Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Corp High Yield 2% Issuer Capped	Portfolio Managers F. Azar/N. Miller L. D'Arienzo/B. Ferguson F. Azar/A. Shane F. Azar/A. Shane B. Camden/D. Personette B. Camden/D. Personette B. Camden/E. Williams	Net Expense Ratio ³ 0.47% 0.15% 0.46% 0.42% 0.46% 0.46% 0.79%	Inception Date 10/1/99 2/27/07 10/1/99 4/8/97 3/29/01 4/1/94 12/31/98	Fund # 622 641 623 657 605 627	CUSIP ⁴ 665162764 665162533 665162749 665162731 665162376 665162806 665162699	in Millions \$ 110.4 \$ 3,058.3 \$ 453.8 \$ 177.3 \$ 281.9 \$ 1,158.2 \$ 3,401.1
FIXED INCOME FUNDS Arizona Tax-Exempt Bond Index CA Intermediate Tax-Exempt CATax-Exempt Core Bond Fixed Income High Yield Fixed Income High Yield Municipal	Ticker Symbol NOAZX NOBOX NCITX NCATX NOCBX NOFIX NHFIX NHFIX	Morningstar Category Muni Single State Intermediate Intermediate-Term Bond Muni CA Intermediate Muni CA Long Intermediate-Term Bond Intermediate-Term Bond High Yield Bond High Yield Muni	Benchmarks Bloomberg Barclays Arizona Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Corp High Yield 2% Issuer Capped Bloomberg Barclays Muni Bond 65-35 Inv. Grade/High Yield	Portfolio Managers F. Azar/N. Miller L. D'Arienzo/B. Ferguson F. Azar/A. Shane F. Azar/A. Shane B. Camden/D. Personette B. Camden/D. Personette B. Camden/D. Nersonette B. Camden/S. Woeppel	Net Expense Ratio ³ 0.47% 0.15% 0.46% 0.47% 0.46% 0.42% 0.46% 0.79% 0.60%	Inception Date 10/1/99 2/27/07 10/1/99 4/8/97 3/29/01 4/1/94 12/31/98 12/31/98	Fund # 622 641 623 657 605 627 626	CUSIP ⁴ 665162764 665162533 665162749 665162731 665162376 665162806 665162699 665162681	in Millions \$ 110.4 \$ 3,058.3 \$ 453.8 \$ 177.3 \$ 281.9 \$ 1,158.2 \$ 3,401.1 \$ 420.3
FIXED INCOME FUNDS Arizona Tax-Exempt Bond Index CA Intermediate Tax-Exempt CA Tax-Exempt Core Bond Fixed Income High Yield Fixed Income High Yield Municipal Intermediate Tax-Exempt Multi-Manager Emerging Markets Debt	Ticker Symbol NOAZX NOBOX NCITX NCATX NOCBX NOFIX NHFIX NHFIX NHYMX NOITX	Morningstar Category Muni Single State Intermediate Intermediate-Term Bond Muni CA Intermediate Muni CA Long Intermediate-Term Bond Intermediate-Term Bond High Yield Bond High Yield Bond High Yield Muni Muni National Intermediate	Benchmarks Bloomberg Barclays Arizona Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Corp High Yield 2% Issuer Capped Bloomberg Barclays Muni Bond 65-35 Inv. Grade/High Yield Bloomberg Barclays Intermediate Municipal Bond 50% JP Morgan EMBI Global Diversified and 50% JP	Portfolio Managers F. Azar/N. Miller L. D'Arienzo/B. Ferguson F. Azar/A. Shane F. Azar/A. Shane B. Carnden/D. Personette B. Camden/D. Personette B. Camden/D. Personette B. Camden/E. Williams A. Shane/S. Woeppel T. McGregor/N. Miller	Net Expense Ratio ³ 0.47% 0.15% 0.46% 0.47% 0.42% 0.46% 0.79% 0.60% 0.47%	Inception Date 10/1/99 2/27/07 10/1/99 4/8/97 3/29/01 4/1/94 12/31/98 12/31/98 4/1/94	Fund # 622 641 623 657 605 627 626 608	CUSIP ⁴ 665162764 665162533 665162749 665162731 665162806 665162806 665162699 665162681 665162871	in Millions in Aillions 110.4 3,058.3 453.8 177.3 281.9 1,158.2 3,401.1 420.3 2,705.7
FIXED INCOME FUNDS Arizona Tax-Exempt Bond Index CA Intermediate Tax-Exempt CA Tax-Exempt Core Bond Fixed Income High Yield Fixed Income High Yield Municipal Intermediate Tax-Exempt Multi-Manager Emerging Markets Debt Opportunity	Ticker Symbol NOAZX NOBOX NCITX NCATX NCCBX NOFIX NHFIX NHYMX NOITX	Morningstar Category Muni Single State Intermediate Intermediate-Term Bond Muni CA Intermediate Muni CA Long Intermediate-Term Bond Intermediate-Term Bond High Yield Bond High Yield Bond High Yield Muni Muni National Intermediate Emerging Markets Bond	Benchmarks Bloomberg Barclays Arizona Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Corp High Yield 2% Issuer Capped Bloomberg Barclays Muni Bond 65-35 Inv. Grade/High Yield Bloomberg Barclays Intermediate Municipal Bond 50% JP Morgan EMBI Global Diversified and 50% JP Morgan GBI-EM Global Diversified	Portfolio Managers F. Azar/N. Miller L. D'Arienzo/B. Ferguson F. Azar/A. Shane F. Azar/A. Shane B. Camden/D. Personette B. Camden/D. Personette B. Camden/D. Personette B. Camden/D. Nersonette T. McGregor/N. Miller C. Vella, CIO	Net Expense Ratio ³ 0.47% 0.15% 0.46% 0.46% 0.46% 0.46% 0.46% 0.46% 0.46% 0.46% 0.46% 0.46% 0.46% 0.46% 0.46% 0.46% 0.46% 0.79% 0.60% 0.47% 0.95%	Inception Date 10/1/99 2/27/07 10/1/99 4/8/97 3/29/01 4/1/94 12/31/98 12/31/98 4/1/94 12/3/13	Fund # 622 641 623 657 605 627 626 608 659	CUSIP ⁴ 665162764 665162533 665162749 665162731 665162376 665162806 665162699 665162681 665162681 665162343	in Millions \$ 110.4 \$ 3,058.3 \$ 453.8 \$ 177.3 \$ 281.9 \$ 1,158.2 \$ 3,401.1 \$ 420.3 \$ 2,705.7 \$ 164.6
FIXED INCOME FUNDS Arizona Tax-Exempt Bond Index CA Intermediate Tax-Exempt CA Tax-Exempt CA Tax-Exempt Core Bond Fixed Income High Yield Fixed Income High Yield Municipal Intermediate Tax-Exempt Multi-Manager Emerging Markets Debt Opportunity Multi-Manager High Yield Opportunity	Ticker Symbol NOAZX NOBOX NCITX NCATX NOCBX NOFIX NHFIX NHFIX NHYMX NOITX NMEDX NMHYX	Morningstar Category Muni Single State Intermediate Intermediate-Term Bond Muni CA Intermediate Muni CA Long Intermediate-Term Bond Intermediate-Term Bond High Yield Bond High Yield Muni Muni National Intermediate Emerging Markets Bond High Yield Bond	Benchmarks Bloomberg Barclays Arizona Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Corp High Yield 2% Issuer Capped Bloomberg Barclays U.S. Corp High Yield 2% Issuer Capped Bloomberg Barclays U.S. Corp High Yield 2% Issuer Capped Bloomberg Barclays U.S. Corp High Yield 2% Issuer Capped Bloomberg Barclays U.S. Corp High Yield 2% Issuer Capped Bloomberg Barclays U.S. Corp High Yield 2% Issuer Capped Bloomberg Barclays Muni Bond 65-35 Inv. Grade/High Yield Bloomberg Barclays Intermediate Municipal Bond 50% JP Morgan EMBI Global Diversified Morgan GBI-EM Global Diversified ICE BofAML US High Yield Constrained Index	Portfolio Managers F. Azar/N. Miller L. D'Arienzo/B. Ferguson F. Azar/A. Shane F. Azar/A. Shane B. Camden/D. Personette B. Camden/D. Personette B. Camden/D. Personette B. Camden/D. Nersonette T. McGregor/N. Williams A. Shane/S. Woeppel T. McGregor/N. Miller C. Vella, CIO C. Vella, CIO	Net Expense Ratio ³ 0.47% 0.15% 0.46% 0.46% 0.46% 0.46% 0.46% 0.47% 0.46% 0.46% 0.45% 0.45% 0.95% 0.87%	Inception Date 10/1/99 2/27/07 10/1/99 4/8/97 3/29/01 4/1/94 12/31/98 12/31/98 4/1/94 12/31/3 9/23/09	Fund # 622 641 623 657 605 627 626 608 659 650	CUSIP ⁴ 665162764 665162533 665162749 665162731 665162376 665162806 665162699 665162681 665162871 665162343 665162442	in Millions \$ 110.4 \$ 3,058.3 \$ 453.8 \$ 177.3 \$ 281.9 \$ 1,158.2 \$ 3,401.1 \$ 420.3 \$ 2,705.7 \$ 164.6 \$ 477.4
FIXED INCOME FUNDS Arizona Tax-Exempt Bond Index CA Intermediate Tax-Exempt CA Tax-Exempt CA Tax-Exempt Core Bond Fixed Income High Yield Fixed Income High Yield Municipal Intermediate Tax-Exempt Multi-Manager Emerging Markets Debt Opportunity Multi-Manager High Yield Opportunity Short Bond	Ticker Symbol NOAZX NOBOX NCITX NCATX NOCBX NOFIX NHFIX NHFIX NHYMX NOITX NMEDX NMHYX BSBAX	Morningstar Category Muni Single State Intermediate Intermediate-Term Bond Muni CA Intermediate Muni CA Long Intermediate-Term Bond Intermediate-Term Bond High Yield Bond High Yield Muni Muni National Intermediate Emerging Markets Bond High Yield Bond Short-Term Bond	Benchmarks Bloomberg Barclays Arizona Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Corp High Yield 2% Issuer Capped Bloomberg Barclays Muni Bond 65-35 Inv. Grade/High Yield Bloomberg Barclays Intermediate Municipal Bond 50% JP Morgan EMBI Global Diversified ICE BofAML US High Yield Constrained Index Bloomberg Barclays 1-3 Year U.S. Govt/Credit	Portfolio Managers F. Azar/N. Miller L. D'Arienzo/B. Ferguson F. Azar/A. Shane F. Azar/A. Shane B. Carnden/D. Personette B. Camden/D. Personette B. Camden/D. Personette B. Camden/D. Williams A. Shane/S. Woeppel T. McGregor/N. Miller C. Vella, CIO B. Camden/M. Doyle	Net Expense Ratio ³ 0.47% 0.15% 0.46% 0.46% 0.42% 0.46% 0.42% 0.46% 0.45% 0.45% 0.45% 0.95% 0.87% 0.40%	Inception Date 10/1/99 2/27/07 10/1/99 4/8/97 3/29/01 4/1/94 12/31/98 4/1/94 12/31/98 4/1/94 12/31/98 9/23/09 1/11/93	Fund # 622 641 623 657 605 627 626 628 659 650 650 650 658	CUSIP ⁴ 665162764 665162733 665162749 665162731 665162806 665162806 665162699 665162871 665162871 665162343 665162442 665162368	in Millions in Aillions 110.4 3,058.3 453.8 177.3 281.9 1,158.2 3,401.1 420.3 2,705.7 164.6 477.4 517.7
FIXED INCOME FUNDS Arizona Tax-Exempt Bond Index CA Intermediate Tax-Exempt CA Tax-Exempt CA Tax-Exempt Core Bond Fixed Income High Yield Fixed Income High Yield Municipal Intermediate Tax-Exempt Multi-Manager Emerging Markets Debt Opportunity Multi-Manager High Yield Opportunity Short Bond Short-Intermediate Tax-Exempt	Ticker Symbol NOAZX NOBOX NCITX NCATX NOCBX NOFIX NHFIX NHFIX NHYMX NOITX NMHYX BSBAX NSITX	Morningstar Category Muni Single State Intermediate Intermediate-Term Bond Muni CA Intermediate Muni CA Long Intermediate-Term Bond Intermediate-Term Bond High Yield Bond High Yield Muni Muni National Intermediate Emerging Markets Bond High Yield Bond Short-Term Bond Muni National Short	Benchmarks Bloomberg Barclays Arizona Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Corp High Yield 2% Issuer Capped Bloomberg Barclays Muni Bond 65-35 Inv. Grade/High Yield Bloomberg Barclays Intermediate Municipal Bond 50% JP Morgan EMBI Global Diversified and 50% JP Morgan GBI-EM Global Diversified ICE BofAML US High Yield Constrained Index Bloomberg Barclays 1-3 Year U.S. Govt/Credit Bloomberg Barclays 1-5 Year Blend Municipal Bond	Portfolio Managers F. Azar/N. Miller L. D'Arienzo/B. Ferguson F. Azar/A. Shane F. Azar/A. Shane B. Camden/D. Personette B. Camden/D. Personette B. Camden/D. Personette B. Camden/D. Nersonette Camden/D. Nersonette B. Camden/D. Nersonette Camden/D. Nersonette B. Camden/D. Nersonette B. Camden/M. Williams A. Shane/S. Woeppel T. McGregor/N. Miller C. Vella, CIO B. Camden/M. Doyle S. Colby/R. Frankenberg	Net Expense Ratio ³ 0.47% 0.15% 0.46% 0.42% 0.42% 0.46% 0.46% 0.47% 0.46% 0.47% 0.46% 0.46% 0.95% 0.87% 0.40% 0.40% 0.47%	Inception Date 10/1/99 2/27/07 10/1/99 4/8/97 3/29/01 4/1/94 12/31/98 4/1/94 12/31/98 4/1/94 12/31/98 4/1/94 12/31/98 4/1/94 12/3/13 9/23/09 1/11/93 8/22/07	Fund # 622 641 621 623 623 657 605 627 626 608 659 659 658 658 643 643	CUSIP ⁴ 665162764 665162733 665162749 665162731 665162806 665162806 665162681 665162871 665162343 665162343 665162368 665162255	in Millions 110.4 3,058.3 453.8 453.8 2,177.3 2,281.9 3,401.1 420.3 2,705.7 3,164.6 477.4 5,17.7 946.6
FIXED INCOME FUNDS Arizona Tax-Exempt Bond Index CA Intermediate Tax-Exempt CA Tax-Exempt Core Bond Fixed Income High Yield Fixed Income High Yield Municipal Intermediate Tax-Exempt Opportunity Multi-Manager Emerging Markets Debt Opportunity Short-Intermediate Tax-Exempt Short-Intermediate Tax-Exempt Short-Intermediate US. Govt. Tax-Advantaged Ultra-Short Fixed Income	Ticker Symbol NOAZX NOBOX NCITX NCATX NCATX NOFIX NOFIX NHYMX NOITX NMEDX NMHYX BSBAX NSITX NSIUX	Morningstar Category Muni Single State Intermediate Intermediate-Term Bond Muni CA Long Intermediate-Term Bond Intermediate-Term Bond High Yield Bond High Yield Muni Muni National Intermediate Emerging Markets Bond High Yield Bond Short-Term Bond Muni National Short Short Government Ultrashort Bond	Benchmarks Bloomberg Barclays Arizona Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Corp High Yield 2% Issuer Capped Bloomberg Barclays Muni Bond 65-35 Inv. Grade/High Yield Bloomberg Barclays Intermediate Municipal Bond 50% JP Morgan EMBI Global Diversified ICE BofAML US High Yield Constrained Index Bloomberg Barclays 1-3 Year U.S. Govt/Credit Bloomberg Barclays 1-5 Year Blend Municipal Bond Bloomberg Barclays 1-5 Year U.S. Government 75% ICE BofAML 6-12 Month Muni Securities and 25% ICE BofAML 1-3 Year U.S. Muni Securities	Portfolio Managers F. Azar/N. Miller L. D'Arienzo/B. Ferguson F. Azar/A. Shane B. Camden/D. Personette B. Camden/D. Personette B. Camden/D. Personette B. Camden/D. Personette Camden/E. Williams A. Shane/S. Woeppel T. McGregor/N. Miller C. Vella, CIO B. Camden/M. Doyle S. Colby/R. Frankenberg M. Chico/D. Personette P. Quinn/J. Gookin	Net Expense Ratio ³ 0.47% 0.15% 0.46% 0.42% 0.46% 0.42% 0.46% 0.99% 0.95% 0.87% 0.40% 0.47% 0.95% 0.87% 0.40% 0.42% 0.40% 0.42% 0.25%	Inception Date 10/1/99 2/27/07 10/1/99 4/8/97 3/29/01 4/1/94 12/31/98 12/31/98 4/1/94 12/3/13 9/23/09 1/11/93 8/22/07 10/1/99 6/18/09	Fund # 622 641 621 623 657 605 627 626 608 659 650 658 643 620 649 649	CUSIP ⁴ 665162764 665162731 665162731 665162731 665162376 66516280 665162681 665162871 665162343 665162343 665162442 665162255 665162756 665162459	in Millions in Millions
FIXED INCOME FUNDS Arizona Tax-Exempt Bond Index CA Intermediate Tax-Exempt CA Tax-Exempt Core Bond Fixed Income High Yield Fixed Income High Yield Municipal Intermediate Tax-Exempt Multi-Manager Emerging Markets Debt Opportunity Short Bond Short-Intermediate Tax-Exempt Short-Intermediate U.S. Govt. Tax-Advantaged Ultra-Short Fixed Income Tax-Exempt	Ticker Symbol NOAZX NOBOX NCITX NCATX NOCBX NOFIX NOFIX NHFIX NHFIX NHTX NOITX NMHDX NMHYX BSBAX NSITX NSIUX NTAUX	Morningstar Category Muni Single State Intermediate Intermediate-Term Bond Muni CA Intermediate Muni CA Long Intermediate-Term Bond Intermediate-Term Bond High Yield Bond High Yield Muni Muni National Intermediate Emerging Markets Bond High Yield Bond Short-Term Bond Muni National Short Short Government Ultrashort Bond Muni National Long	Benchmarks Bloomberg Barclays Arizona Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Corp High Yield 2% Issuer Capped Bloomberg Barclays Muni Bond 65-35 Inv. Grade/High Yield Bloomberg Barclays Intermediate Municipal Bond S0% JP Morgan EMBI Global Diversified and 50% JP Morgan GBI-EM Global Diversified ICE BofAML US High Yield Constrained Index Bloomberg Barclays 1-3 Year U.S. Govt/Credit Bloomberg Barclays 1-5 Year Blend Municipal Bond Bloomberg Barclays 1-5 Year U.S. Government 75% ICE BofAML 6-12 Month Muni Securities and 25% ICE BofAML 1-3 Year U.S. Muni Securities Bloomberg Barclays U.S. Municipal	Portfolio Managers F. Azar/N. Miller L. D'Arienzo/B. Ferguson F. Azar/A. Shane B. Camden/D. Personette B. Camden/D. Personette B. Camden/D. Personette B. Camden/D. Personette C. Wella, CIO C. Vella, CIO B. Camden/M. Doyle S. Colby/R. Frankenberg M. Chico/D. Personette P. Quinn/J. Gookin T. McGregor/F. Azar	Net Expense Ratio3 0.47% 0.15% 0.46% 0.42% 0.42% 0.46% 0.40% 0.95% 0.87% 0.40% 0.47% 0.95% 0.87% 0.40% 0.42% 0.25% 0.46%	Inception Date 10/1/99 2/27/07 10/1/99 4/8/97 3/29/01 4/1/94 12/31/98 4/1/94 12/3/13 9/23/09 1/11/93 8/22/07 10/1/99 6/18/09 4/1/94	Fund # 622 641 621 623 657 605 627 626 608 659 650 658 643 620 649 607	CUSIP ⁴ 665162764 665162731 665162731 665162376 665162376 665162806 665162801 66516281 665162343 665162343 665162422 665162368 665162756 665162459 665162459	in Millions in Aillions in Aillions in Aillions in Ainterna in Ainterna
FIXED INCOME FUNDS Arizona Tax-Exempt Bond Index CA Intermediate Tax-Exempt CA Tax-Exempt Core Bond Fixed Income High Yield Fixed Income High Yield Municipal Intermediate Tax-Exempt Opportunity Multi-Manager Emerging Markets Debt Opportunity Short-Intermediate Tax-Exempt Short-Intermediate Tax-Exempt Short-Intermediate US. Govt. Tax-Advantaged Ultra-Short Fixed Income	Ticker Symbol NOAZX NOBOX NCITX NCATX NCATX NOFIX NOFIX NHYMX NOITX NMEDX NMHYX BSBAX NSITX NSIUX	Morningstar Category Muni Single State Intermediate Intermediate-Term Bond Muni CA Long Intermediate-Term Bond Intermediate-Term Bond High Yield Bond High Yield Muni Muni National Intermediate Emerging Markets Bond High Yield Bond Short-Term Bond Muni National Short Short Government Ultrashort Bond	Benchmarks Bloomberg Barclays Arizona Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Intermediate Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays CA Municipal Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Aggregate Bond Bloomberg Barclays U.S. Corp High Yield 2% Issuer Capped Bloomberg Barclays Muni Bond 65-35 Inv. Grade/High Yield Bloomberg Barclays Intermediate Municipal Bond 50% JP Morgan EMBI Global Diversified ICE BofAML US High Yield Constrained Index Bloomberg Barclays 1-3 Year U.S. Govt/Credit Bloomberg Barclays 1-5 Year Blend Municipal Bond Bloomberg Barclays 1-5 Year U.S. Government 75% ICE BofAML 6-12 Month Muni Securities and 25% ICE BofAML 1-3 Year U.S. Muni Securities	Portfolio Managers F. Azar/N. Miller L. D'Arienzo/B. Ferguson F. Azar/A. Shane B. Camden/D. Personette B. Camden/D. Personette B. Camden/D. Personette B. Camden/D. Personette Camden/E. Williams A. Shane/S. Woeppel T. McGregor/N. Miller C. Vella, CIO B. Camden/M. Doyle S. Colby/R. Frankenberg M. Chico/D. Personette P. Quinn/J. Gookin	Net Expense Ratio ³ 0.47% 0.15% 0.46% 0.42% 0.46% 0.42% 0.46% 0.99% 0.95% 0.87% 0.40% 0.47% 0.95% 0.87% 0.40% 0.42% 0.40% 0.42% 0.25%	Inception Date 10/1/99 2/27/07 10/1/99 4/8/97 3/29/01 4/1/94 12/31/98 12/31/98 4/1/94 12/3/13 9/23/09 1/11/93 8/22/07 10/1/99 6/18/09	Fund # 622 641 621 623 657 605 627 626 608 659 650 658 643 620 649 649	CUSIP ⁴ 665162764 665162731 665162731 665162731 665162376 66516280 665162681 665162871 665162343 665162343 665162442 665162255 665162756 665162459	in Millions in Millions

NORTHERN FUNDS OUICK REFERENCE GUIDE AS OF 12/31/18

IN NO GED DI	
NORTHERN	
TRUST	

NOT FDIC INSURED	May lose value / No bank guarantee
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FOR MORE **INFORMATION ABOUT** NORTHERN FUNDS

- Contact your financial advisor
- Call 800-595-9111
- Visit northerntrust.com/funds

Mutual fund investing involves risk, including loss of principal.

take - in all market environments and any investment strategy.

* Assets under management were \$885 billion as of December 31, 2018.

ABOUT NORTHERN TRUST ASSET MANAGEMENT

Northern Trust Asset Management is a global investment manager that helps investors

navigate changing market environments, so they can confidently realize their long-term

Entrusted with more than \$900 billion of assets,* we understand that investing ultimately

serves a greater purpose and believe investors should be compensated for the risks they

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Contact your Northern Funds financial advisor or Northern Funds to open a new account or add to an existing account.

By Phone	Call 800-595-9111
By Mail	Send your completed application & check to:
	Northern Funds P.O. Box 75986 Chicago, IL 60675-5986
In Person	Visit any Northern Trust loca

objectives.

Minimum Investments

- Minimum initial investment: \$2,500
- IRAs: minimum initial investment \$500
- Automatic Investment Plan: minimum initial investment \$250
- Additional purchases: \$50 minimum, except for reinvestments of distributions, which have no minimum
- Exchanges: \$2,500 minimum for new accounts, \$1,000 minimum for exchanges between existing accounts

If you have any questions, call the Northern Funds Center at 800-595-9111.

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¹ Effective July 31, 2018, the benchmark for the International Equity Fund has changed from MSCI EAFE® Index to MSCI World ex USA Index which better aligns with the investment adviser's view of the developed international equity markets.

² Effective July 31, 2018, the benchmark for the Global Real Estate Index has changed from FTSE® EPRA®/NAREIT® Global Index to MSCI ACWI IMI Core Real Estate Index which better aligns with the investment adviser's view of the investable universe in the real estate sector and to provide additional representation of real estate investment trusts and broader market capitalization.

³ The Net Expense Ratios are the "Total Annual Fund Operating Expenses After Expense Reimbursement" for each Fund as of the most recent prospectus. Northern Funds include contractual expense reimbursements that if not extended, will end on July 31, 2019 except the Northern Short-Intermediate U.S. Government Fund and Northern U.S. Government Fund which will end on October 23, 2018 and Northern Ultra Short Fixed Income Fund which will end on January 8, 2020.

⁴ CUSIP identifiers to be provided by the CUSIP Global Services, managed on behalf of the American Bankers Association by Standard & Poor's, The CUSIP Database, ©2019 American Bankers Association. "CUSIP" is a registered trademark of the American Bankers Association. CUSIP identifiers provided are not for use or dissemination in a manner that would serve as a substitute for any CUSIP Service.

Please carefully read the summary prospectus and prospectus and consider the investment objectives and principal investment strategies, principal risks, fees and expenses, and fund performance of Northern Funds before investing. Call 800-595-9111 to obtain a summary prospectus and prospectus, which contain this and other information about the funds.

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NORTHERN FAMILY OF FUNDS EQUITY FUNDS **INTERNATIONAL EQUITIES & SECTOR FUNDS** Active M Emerging Markets Equity Emerging Markets Equity Index Multi-Manager Global Real Estate

Global Real Estate Index Multi-Manager Global Listed Infrastructure International Equity Active M International Equity International Equity Index Northern Engage360™

SMALL- & MEDIUM-CAP EQUITY FUNDS

Global Sustainability Index

Small Cap Value Small Cap Core

ROWTH

INCOMI

LOWER

REWARD

RISK/

HIGHER

REWARD

RISK/

Small Cap Index Mid Cap Index

INCOME & LARGE-CAP EQUITY FUNDS

U.S. Quality ESG Large Cap Value Large Cap Core Stock Index Income Equity

ASSET ALLOCATION FUND Global Tactical Asset Allocation

FIXED INCOME FUNDS

LONGER-TERM & HIGH YIELD BOND FUNDS

Multi-Manager Emerging Markets Debt Opportunity Multi-Manager High Yield Opportunity High Yield Fixed Income High Yield Municipal California Tax-Exempt Arizona Tax-Exempt Tax-Exempt U.S. Treasury Index

SHORT & INTERMEDIATE-TERM BOND FUNDS

Fixed Income Bond Index Core Bond California Intermediate Tax-Exempt Intermediate Tax-Exempt Short-Intermediate Tax-Exempt U.S. Government Short Bond Short-Intermediate U.S. Government Ultra-Short Fixed Income Tax-Advantaged Ultra-Short Fixed Income