

Exh. AEB-8
Docket UE-19 _____
Witness: Ann E. Bulkley

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,

Complainant,

v.

PACIFICORP dba
PACIFIC POWER & LIGHT COMPANY

Respondent.

Docket UE-19 _____

**PACIFICORP
EXHIBIT OF ANN E. BULKLEY**

Capital Asset Pricing Model

December 2019

CAPITAL ASSET PRICING MODEL -- CURRENT RISK-FREE RATE & VL BETA

$$K = R_f + \beta (R_m - R_f)$$

Company	Ticker	[1]	[2]	[3]	[4]	[5]
		Current 30-day average of 30-year U.S. Treasury bond yield	Beta (β)	Market Return (R_m)	Market Risk Premium ($R_m - R_f$)	ROE (K)
ALLETE, Inc.	ALE	2.11%	0.65	13.83%	11.72%	9.73%
Alliant Energy Corporation	LNT	2.11%	0.60	13.83%	11.72%	9.14%
Ameren Corporation	AEE	2.11%	0.55	13.83%	11.72%	8.56%
American Electric Power Company, Inc.	AEP	2.11%	0.55	13.83%	11.72%	8.56%
Avista Corporation	AVA	2.11%	0.60	13.83%	11.72%	9.14%
CenterPoint Energy, Inc.	CNP	2.11%	0.80	13.83%	11.72%	11.49%
CMS Energy Corporation	CMS	2.11%	0.55	13.83%	11.72%	8.56%
Dominion Resources, Inc.	D	2.11%	0.55	13.83%	11.72%	8.56%
DTE Energy Company	DTE	2.11%	0.55	13.83%	11.72%	8.56%
Duke Energy Corporation	DUK	2.11%	0.50	13.83%	11.72%	7.97%
Entergy Corporation	ETR	2.11%	0.60	13.83%	11.72%	9.14%
Evergy, Inc.	EVRG	2.11%	NMF	13.83%	11.72%	
FirstEnergy Corporation	FE	2.11%	0.60	13.83%	11.72%	9.14%
IDACORP, Inc.	IDA	2.11%	0.60	13.83%	11.72%	9.14%
NextEra Energy, Inc.	NEE	2.11%	0.55	13.83%	11.72%	8.56%
NorthWestern Corporation	NWE	2.11%	0.60	13.83%	11.72%	9.14%
OGE Energy Corporation	OGE	2.11%	0.80	13.83%	11.72%	11.49%
Pinnacle West Capital Corporation	PNW	2.11%	0.55	13.83%	11.72%	8.56%
PNM Resources, Inc.	PNM	2.11%	0.60	13.83%	11.72%	9.14%
Portland General Electric Company	POR	2.11%	0.60	13.83%	11.72%	9.14%
PPL Corporation	PPL	2.11%	0.65	13.83%	11.72%	9.73%
Southern Company	SO	2.11%	0.50	13.83%	11.72%	7.97%
Xcel Energy Inc.	XEL	2.11%	0.50	13.83%	11.72%	7.97%
Mean						9.06%

Notes:

- [1] Source: Bloomberg Professional
- [2] Source: Value Line
- [3] Source: Exhibit No. AEB-8, page 7 (Analysts Long-term growth estimates)
- [4] Equals [3] - [1]
- [5] Equals [1] + [2] x [4]

CAPITAL ASSET PRICING MODEL -- NEAR-TERM PROJECTED RISK-FREE RATE & VL BETA

$$K = R_f + \beta (R_m - R_f)$$

Company	Ticker	[1]	[2]	[3]	[4]	[5]
		Near-term projected 30-year U.S. Treasury bond yield (Q1 2020 - Q1 2021)	Beta (β)	Market Return (R_m)	Market Risk Premium ($R_m - R_f$)	ROE (K)
ALLETE, Inc.	ALE	2.32%	0.65	13.83%	11.51%	9.80%
Alliant Energy Corporation	LNT	2.32%	0.60	13.83%	11.51%	9.23%
Ameren Corporation	AEE	2.32%	0.55	13.83%	11.51%	8.65%
American Electric Power Company, Inc.	AEP	2.32%	0.55	13.83%	11.51%	8.65%
Avista Corporation	AVA	2.32%	0.60	13.83%	11.51%	9.23%
CenterPoint Energy, Inc.	CNP	2.32%	0.80	13.83%	11.51%	11.53%
CMS Energy Corporation	CMS	2.32%	0.55	13.83%	11.51%	8.65%
Dominion Resources, Inc.	D	2.32%	0.55	13.83%	11.51%	8.65%
DTE Energy Company	DTE	2.32%	0.55	13.83%	11.51%	8.65%
Duke Energy Corporation	DUK	2.32%	0.50	13.83%	11.51%	8.08%
Entergy Corporation	ETR	2.32%	0.60	13.83%	11.51%	9.23%
Evergy, Inc.	EVRG	2.32%	NMF	13.83%	11.51%	
FirstEnergy Corporation	FE	2.32%	0.60	13.83%	11.51%	9.23%
IDACORP, Inc.	IDA	2.32%	0.60	13.83%	11.51%	9.23%
NextEra Energy, Inc.	NEE	2.32%	0.55	13.83%	11.51%	8.65%
NorthWestern Corporation	NWE	2.32%	0.60	13.83%	11.51%	9.23%
OGE Energy Corporation	OGE	2.32%	0.80	13.83%	11.51%	11.53%
Pinnacle West Capital Corporation	PNW	2.32%	0.55	13.83%	11.51%	8.65%
PNM Resources, Inc.	PNM	2.32%	0.60	13.83%	11.51%	9.23%
Portland General Electric Company	POR	2.32%	0.60	13.83%	11.51%	9.23%
PPL Corporation	PPL	2.32%	0.65	13.83%	11.51%	9.80%
Southern Company	SO	2.32%	0.50	13.83%	11.51%	8.08%
Xcel Energy Inc.	XEL	2.32%	0.50	13.83%	11.51%	8.08%
Mean						9.15%

Notes:

- [1] Source: Blue Chip Financial Forecasts, Vol. 38, No. 10, October 1, 2019, at 2
- [2] Source: Value Line
- [3] Source: Exhibit No. AEB-8, page 7 (Analysts Long-term growth estimates)
- [4] Equals [3] - [1]
- [5] Equals [1] + [2] x [4]

CAPITAL ASSET PRICING MODEL -- LONG-TERM PROJECTED RISK-FREE RATE & VL BETA

$$K = R_f + \beta (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]
Company	Ticker	Projected 30-year U.S. Treasury bond yield (2021 - 2025)	Beta (β)	Market Return (R_m)	Market Risk Premium ($R_m - R_f$)	ROE (K)
ALLETE, Inc.	ALE	3.60%	0.65	13.83%	10.23%	10.25%
Alliant Energy Corporation	LNT	3.60%	0.60	13.83%	10.23%	9.74%
Ameren Corporation	AEE	3.60%	0.55	13.83%	10.23%	9.23%
American Electric Power Company, Inc.	AEP	3.60%	0.55	13.83%	10.23%	9.23%
Avista Corporation	AVA	3.60%	0.60	13.83%	10.23%	9.74%
CenterPoint Energy, Inc.	CNP	3.60%	0.80	13.83%	10.23%	11.78%
CMS Energy Corporation	CMS	3.60%	0.55	13.83%	10.23%	9.23%
Dominion Resources, Inc.	D	3.60%	0.55	13.83%	10.23%	9.23%
DTE Energy Company	DTE	3.60%	0.55	13.83%	10.23%	9.23%
Duke Energy Corporation	DUK	3.60%	0.50	13.83%	10.23%	8.72%
Entergy Corporation	ETR	3.60%	0.60	13.83%	10.23%	9.74%
Evergy, Inc.	EVRG	3.60%	NMF	13.83%	10.23%	
FirstEnergy Corporation	FE	3.60%	0.60	13.83%	10.23%	9.74%
IDACORP, Inc.	IDA	3.60%	0.60	13.83%	10.23%	9.74%
NextEra Energy, Inc.	NEE	3.60%	0.55	13.83%	10.23%	9.23%
NorthWestern Corporation	NWE	3.60%	0.60	13.83%	10.23%	9.74%
OGE Energy Corporation	OGE	3.60%	0.80	13.83%	10.23%	11.78%
Pinnacle West Capital Corporation	PNW	3.60%	0.55	13.83%	10.23%	9.23%
PNM Resources, Inc.	PNM	3.60%	0.60	13.83%	10.23%	9.74%
Portland General Electric Company	POR	3.60%	0.60	13.83%	10.23%	9.74%
PPL Corporation	PPL	3.60%	0.65	13.83%	10.23%	10.25%
Southern Company	SO	3.60%	0.50	13.83%	10.23%	8.72%
Xcel Energy Inc.	XEL	3.60%	0.50	13.83%	10.23%	8.72%
Mean						9.67%

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 38, No. 6, June 1, 2019, at 14

[2] Source: Value Line

[3] Source: Exhibit No. AEB-8, page 7 (Analysts Long-term growth estimates)

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

CAPITAL ASSET PRICING MODEL -- CURRENT RISK-FREE RATE & BLOOMBERG BETA

$$K = R_f + \beta (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]
Company	Ticker	Current 30-day average of 30-year U.S. Treasury bond yield	Beta (β)	Market Return (R_m)	Market Risk Premium ($R_m - R_f$)	ROE (K)
ALLETE, Inc.	ALE	2.11%	0.70	13.83%	11.72%	10.34%
Alliant Energy Corporation	LNT	2.11%	0.69	13.83%	11.72%	10.24%
Ameren Corporation	AEE	2.11%	0.65	13.83%	11.72%	9.75%
American Electric Power Company, Inc.	AEP	2.11%	0.63	13.83%	11.72%	9.51%
Avista Corporation	AVA	2.11%	0.70	13.83%	11.72%	10.35%
CenterPoint Energy, Inc.	CNP	2.11%	0.73	13.83%	11.72%	10.65%
CMS Energy Corporation	CMS	2.11%	0.65	13.83%	11.72%	9.73%
Dominion Resources, Inc.	D	2.11%	0.60	13.83%	11.72%	9.18%
DTE Energy Company	DTE	2.11%	0.66	13.83%	11.72%	9.90%
Duke Energy Corporation	DUK	2.11%	0.53	13.83%	11.72%	8.37%
Entergy Corporation	ETR	2.11%	0.65	13.83%	11.72%	9.69%
Evergy, Inc.	EVRG	2.11%	0.63	13.83%	11.72%	9.53%
FirstEnergy Corporation	FE	2.11%	0.68	13.83%	11.72%	10.10%
IDACORP, Inc.	IDA	2.11%	0.73	13.83%	11.72%	10.68%
NextEra Energy, Inc.	NEE	2.11%	0.64	13.83%	11.72%	9.65%
NorthWestern Corporation	NWE	2.11%	0.70	13.83%	11.72%	10.35%
OGE Energy Corporation	OGE	2.11%	0.74	13.83%	11.72%	10.81%
Pinnacle West Capital Corporation	PNW	2.11%	0.66	13.83%	11.72%	9.87%
PNM Resources, Inc.	PNM	2.11%	0.75	13.83%	11.72%	10.90%
Portland General Electric Company	POR	2.11%	0.68	13.83%	11.72%	10.03%
PPL Corporation	PPL	2.11%	0.63	13.83%	11.72%	9.49%
Southern Company	SO	2.11%	0.53	13.83%	11.72%	8.33%
Xcel Energy Inc.	XEL	2.11%	0.58	13.83%	11.72%	8.90%
Mean						9.84%

Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional

[3] Source: Exhibit No. AEB-8, page 7 (Analysts Long-term growth estimates)

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

CAPITAL ASSET PRICING MODEL -- NEAR-TERM PROJECTED RISK-FREE RATE & BLOOMBERG BETA

$$K = R_f + \beta (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]
Company	Ticker	Projected 30-year U.S. Treasury bond yield (2021 - 2025)	Beta (β)	Market Return (Rm)	Market Risk Premium (Rm - Rf)	ROE (K)
ALLETE, Inc.	ALE	2.32%	0.70	13.83%	11.51%	10.40%
Alliant Energy Corporation	LNT	2.32%	0.69	13.83%	11.51%	10.31%
Ameren Corporation	AEE	2.32%	0.65	13.83%	11.51%	9.82%
American Electric Power Company, Inc.	AEP	2.32%	0.63	13.83%	11.51%	9.58%
Avista Corporation	AVA	2.32%	0.70	13.83%	11.51%	10.42%
CenterPoint Energy, Inc.	CNP	2.32%	0.73	13.83%	11.51%	10.71%
CMS Energy Corporation	CMS	2.32%	0.65	13.83%	11.51%	9.80%
Dominion Resources, Inc.	D	2.32%	0.60	13.83%	11.51%	9.26%
DTE Energy Company	DTE	2.32%	0.66	13.83%	11.51%	9.97%
Duke Energy Corporation	DUK	2.32%	0.53	13.83%	11.51%	8.46%
Entergy Corporation	ETR	2.32%	0.65	13.83%	11.51%	9.77%
Evergy, Inc.	EVRG	2.32%	0.63	13.83%	11.51%	9.60%
FirstEnergy Corporation	FE	2.32%	0.68	13.83%	11.51%	10.17%
IDACORP, Inc.	IDA	2.32%	0.73	13.83%	11.51%	10.74%
NextEra Energy, Inc.	NEE	2.32%	0.64	13.83%	11.51%	9.72%
NorthWestern Corporation	NWE	2.32%	0.70	13.83%	11.51%	10.42%
OGE Energy Corporation	OGE	2.32%	0.74	13.83%	11.51%	10.86%
Pinnacle West Capital Corporation	PNW	2.32%	0.66	13.83%	11.51%	9.94%
PNM Resources, Inc.	PNM	2.32%	0.75	13.83%	11.51%	10.95%
Portland General Electric Company	POR	2.32%	0.68	13.83%	11.51%	10.10%
PPL Corporation	PPL	2.32%	0.63	13.83%	11.51%	9.57%
Southern Company	SO	2.32%	0.53	13.83%	11.51%	8.43%
Xcel Energy Inc.	XEL	2.32%	0.58	13.83%	11.51%	8.99%
Mean						9.91%

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 38, No. 10, October 1, 2019, at 2

[2] Source: Bloomberg Professional

[3] Source: Exhibit No. AEB-8, page 7 (Analysts Long-term growth estimates)

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

CAPITAL ASSET PRICING MODEL -- LONG-TERM PROJECTED RISK-FREE RATE & BLOOMBERG BETA

$$K = R_f + \beta (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]
Company	Ticker	Projected 30-year U.S. Treasury bond yield (2021 - 2025)	Beta (β)	Market Return (Rm)	Market Risk Premium (Rm - Rf)	ROE (K)
ALLETE, Inc.	ALE	3.60%	0.70	13.83%	10.23%	10.78%
Alliant Energy Corporation	LNT	3.60%	0.69	13.83%	10.23%	10.70%
Ameren Corporation	AEE	3.60%	0.65	13.83%	10.23%	10.27%
American Electric Power Company, Inc.	AEP	3.60%	0.63	13.83%	10.23%	10.06%
Avista Corporation	AVA	3.60%	0.70	13.83%	10.23%	10.80%
CenterPoint Energy, Inc.	CNP	3.60%	0.73	13.83%	10.23%	11.05%
CMS Energy Corporation	CMS	3.60%	0.65	13.83%	10.23%	10.25%
Dominion Resources, Inc.	D	3.60%	0.60	13.83%	10.23%	9.77%
DTE Energy Company	DTE	3.60%	0.66	13.83%	10.23%	10.40%
Duke Energy Corporation	DUK	3.60%	0.53	13.83%	10.23%	9.06%
Entergy Corporation	ETR	3.60%	0.65	13.83%	10.23%	10.22%
Evergy, Inc.	EVRG	3.60%	0.63	13.83%	10.23%	10.07%
FirstEnergy Corporation	FE	3.60%	0.68	13.83%	10.23%	10.57%
IDACORP, Inc.	IDA	3.60%	0.73	13.83%	10.23%	11.08%
NextEra Energy, Inc.	NEE	3.60%	0.64	13.83%	10.23%	10.18%
NorthWestern Corporation	NWE	3.60%	0.70	13.83%	10.23%	10.80%
OGE Energy Corporation	OGE	3.60%	0.74	13.83%	10.23%	11.19%
Pinnacle West Capital Corporation	PNW	3.60%	0.66	13.83%	10.23%	10.38%
PNM Resources, Inc.	PNM	3.60%	0.75	13.83%	10.23%	11.27%
Portland General Electric Company	POR	3.60%	0.68	13.83%	10.23%	10.52%
PPL Corporation	PPL	3.60%	0.63	13.83%	10.23%	10.05%
Southern Company	SO	3.60%	0.53	13.83%	10.23%	9.03%
Xcel Energy Inc.	XEL	3.60%	0.58	13.83%	10.23%	9.53%
Mean						10.35%

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 38, No. 6, June 1, 2019, at 14

[2] Source: Bloomberg Professional

[3] Source: Exhibit No. AEB-8, page 7 (Analysts Long-term growth estimates)

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

CAPITAL ASSET PRICING MODEL -- CURRENT RISK-FREE RATE & VL BETA

$$K = R_f + \beta (R_m - R_f)$$

Company	Ticker	[1]	[2]	[3]	[4]	[5]
		Current 30-day average of 30-year U.S. Treasury bond yield	Beta (β)	Market Return (R_m)	Market Risk Premium ($R_m - R_f$)	ROE (K)
ALLETE, Inc.	ALE	2.11%	0.65	13.86%	11.74%	9.75%
Alliant Energy Corporation	LNT	2.11%	0.60	13.86%	11.74%	9.16%
Ameren Corporation	AEE	2.11%	0.55	13.86%	11.74%	8.57%
American Electric Power Company, Inc.	AEP	2.11%	0.55	13.86%	11.74%	8.57%
Avista Corporation	AVA	2.11%	0.60	13.86%	11.74%	9.16%
CenterPoint Energy, Inc.	CNP	2.11%	0.80	13.86%	11.74%	11.51%
CMS Energy Corporation	CMS	2.11%	0.55	13.86%	11.74%	8.57%
Dominion Resources, Inc.	D	2.11%	0.55	13.86%	11.74%	8.57%
DTE Energy Company	DTE	2.11%	0.55	13.86%	11.74%	8.57%
Duke Energy Corporation	DUK	2.11%	0.50	13.86%	11.74%	7.98%
Entergy Corporation	ETR	2.11%	0.60	13.86%	11.74%	9.16%
Evergy, Inc.	EVRG	2.11%	NMF	13.86%	11.74%	
FirstEnergy Corporation	FE	2.11%	0.60	13.86%	11.74%	9.16%
IDACORP, Inc.	IDA	2.11%	0.60	13.86%	11.74%	9.16%
NextEra Energy, Inc.	NEE	2.11%	0.55	13.86%	11.74%	8.57%
NorthWestern Corporation	NWE	2.11%	0.60	13.86%	11.74%	9.16%
OGE Energy Corporation	OGE	2.11%	0.80	13.86%	11.74%	11.51%
Pinnacle West Capital Corporation	PNW	2.11%	0.55	13.86%	11.74%	8.57%
PNM Resources, Inc.	PNM	2.11%	0.60	13.86%	11.74%	9.16%
Portland General Electric Company	POR	2.11%	0.60	13.86%	11.74%	9.16%
PPL Corporation	PPL	2.11%	0.65	13.86%	11.74%	9.75%
Southern Company	SO	2.11%	0.50	13.86%	11.74%	7.98%
Xcel Energy Inc.	XEL	2.11%	0.50	13.86%	11.74%	7.98%
Mean						9.08%

Notes:

- [1] Source: Bloomberg Professional
- [2] Source: Value Line
- [3] Source: Exhibit No. AEB-8, page 7 (S&P Earnings and Estimates Report)
- [4] Equals [3] - [1]
- [5] Equals [1] + [2] x [4]

CAPITAL ASSET PRICING MODEL -- NEAR-TERM PROJECTED RISK-FREE RATE & VL BETA

$$K = R_f + \beta (R_m - R_f)$$

Company	Ticker	[1]	[2]	[3]	[4]	[5]
		Near-term projected 30-year U.S. Treasury bond yield (Q1 2020 - Q1 2021)	Beta (β)	Market Return (R_m)	Market Risk Premium ($R_m - R_f$)	ROE (K)
ALLETE, Inc.	ALE	2.32%	0.65	13.86%	11.54%	9.82%
Alliant Energy Corporation	LNT	2.32%	0.60	13.86%	11.54%	9.24%
Ameren Corporation	AEE	2.32%	0.55	13.86%	11.54%	8.67%
American Electric Power Company, Inc.	AEP	2.32%	0.55	13.86%	11.54%	8.67%
Avista Corporation	AVA	2.32%	0.60	13.86%	11.54%	9.24%
CenterPoint Energy, Inc.	CNP	2.32%	0.80	13.86%	11.54%	11.55%
CMS Energy Corporation	CMS	2.32%	0.55	13.86%	11.54%	8.67%
Dominion Resources, Inc.	D	2.32%	0.55	13.86%	11.54%	8.67%
DTE Energy Company	DTE	2.32%	0.55	13.86%	11.54%	8.67%
Duke Energy Corporation	DUK	2.32%	0.50	13.86%	11.54%	8.09%
Entergy Corporation	ETR	2.32%	0.60	13.86%	11.54%	9.24%
Evergy, Inc.	EVRG	2.32%	NMF	13.86%	11.54%	
FirstEnergy Corporation	FE	2.32%	0.60	13.86%	11.54%	9.24%
IDACORP, Inc.	IDA	2.32%	0.60	13.86%	11.54%	9.24%
NextEra Energy, Inc.	NEE	2.32%	0.55	13.86%	11.54%	8.67%
NorthWestern Corporation	NWE	2.32%	0.60	13.86%	11.54%	9.24%
OGE Energy Corporation	OGE	2.32%	0.80	13.86%	11.54%	11.55%
Pinnacle West Capital Corporation	PNW	2.32%	0.55	13.86%	11.54%	8.67%
PNM Resources, Inc.	PNM	2.32%	0.60	13.86%	11.54%	9.24%
Portland General Electric Company	POR	2.32%	0.60	13.86%	11.54%	9.24%
PPL Corporation	PPL	2.32%	0.65	13.86%	11.54%	9.82%
Southern Company	SO	2.32%	0.50	13.86%	11.54%	8.09%
Xcel Energy Inc.	XEL	2.32%	0.50	13.86%	11.54%	8.09%
Mean						9.16%

Notes:

- [1] Source: Blue Chip Financial Forecasts, Vol. 38, No. 10, October 1, 2019, at 2
- [2] Source: Value Line
- [3] Source: Exhibit No. AEB-8, page 7 (S&P Earnings and Estimates Report)
- [4] Equals [3] - [1]
- [5] Equals [1] + [2] x [4]

CAPITAL ASSET PRICING MODEL -- LONG-TERM PROJECTED RISK-FREE RATE & VL BETA

$$K = R_f + \beta (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]
Company	Ticker	Projected 30-year U.S. Treasury bond yield (2021 - 2025)	Beta (β)	Market Return (Rm)	Market Risk Premium (Rm - Rf)	ROE (K)
ALLETE, Inc.	ALE	3.60%	0.65	13.86%	10.26%	10.27%
Alliant Energy Corporation	LNT	3.60%	0.60	13.86%	10.26%	9.75%
Ameren Corporation	AEE	3.60%	0.55	13.86%	10.26%	9.24%
American Electric Power Company, Inc.	AEP	3.60%	0.55	13.86%	10.26%	9.24%
Avista Corporation	AVA	3.60%	0.60	13.86%	10.26%	9.75%
CenterPoint Energy, Inc.	CNP	3.60%	0.80	13.86%	10.26%	11.81%
CMS Energy Corporation	CMS	3.60%	0.55	13.86%	10.26%	9.24%
Dominion Resources, Inc.	D	3.60%	0.55	13.86%	10.26%	9.24%
DTE Energy Company	DTE	3.60%	0.55	13.86%	10.26%	9.24%
Duke Energy Corporation	DUK	3.60%	0.50	13.86%	10.26%	8.73%
Entergy Corporation	ETR	3.60%	0.60	13.86%	10.26%	9.75%
Evergy, Inc.	EVRG	3.60%	NMF	13.86%	10.26%	
FirstEnergy Corporation	FE	3.60%	0.60	13.86%	10.26%	9.75%
IDACORP, Inc.	IDA	3.60%	0.60	13.86%	10.26%	9.75%
NextEra Energy, Inc.	NEE	3.60%	0.55	13.86%	10.26%	9.24%
NorthWestern Corporation	NWE	3.60%	0.60	13.86%	10.26%	9.75%
OGE Energy Corporation	OGE	3.60%	0.80	13.86%	10.26%	11.81%
Pinnacle West Capital Corporation	PNW	3.60%	0.55	13.86%	10.26%	9.24%
PNM Resources, Inc.	PNM	3.60%	0.60	13.86%	10.26%	9.75%
Portland General Electric Company	POR	3.60%	0.60	13.86%	10.26%	9.75%
PPL Corporation	PPL	3.60%	0.65	13.86%	10.26%	10.27%
Southern Company	SO	3.60%	0.50	13.86%	10.26%	8.73%
Xcel Energy Inc.	XEL	3.60%	0.50	13.86%	10.26%	8.73%
Mean						9.68%

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 38, No. 6, June 1, 2019, at 14

[2] Source: Value Line

[3] Source: Exhibit No. AEB-8, page 7 (S&P Earnings and Estimates Report)

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

CAPITAL ASSET PRICING MODEL -- CURRENT RISK-FREE RATE & BLOOMBERG BETA

$$K = R_f + \beta (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]
Company	Ticker	Current 30-day average of 30-year U.S. Treasury bond yield	Beta (β)	Market Return (Rm)	Market Risk Premium (Rm - Rf)	ROE (K)
ALLETE, Inc.	ALE	2.11%	0.70	13.86%	11.74%	10.36%
Alliant Energy Corporation	LNT	2.11%	0.69	13.86%	11.74%	10.26%
Ameren Corporation	AEE	2.11%	0.65	13.86%	11.74%	9.77%
American Electric Power Company, Inc.	AEP	2.11%	0.63	13.86%	11.74%	9.52%
Avista Corporation	AVA	2.11%	0.70	13.86%	11.74%	10.37%
CenterPoint Energy, Inc.	CNP	2.11%	0.73	13.86%	11.74%	10.67%
CMS Energy Corporation	CMS	2.11%	0.65	13.86%	11.74%	9.75%
Dominion Resources, Inc.	D	2.11%	0.60	13.86%	11.74%	9.20%
DTE Energy Company	DTE	2.11%	0.66	13.86%	11.74%	9.92%
Duke Energy Corporation	DUK	2.11%	0.53	13.86%	11.74%	8.38%
Entergy Corporation	ETR	2.11%	0.65	13.86%	11.74%	9.71%
Evergy, Inc.	EVRG	2.11%	0.63	13.86%	11.74%	9.54%
FirstEnergy Corporation	FE	2.11%	0.68	13.86%	11.74%	10.12%
IDACORP, Inc.	IDA	2.11%	0.73	13.86%	11.74%	10.70%
NextEra Energy, Inc.	NEE	2.11%	0.64	13.86%	11.74%	9.67%
NorthWestern Corporation	NWE	2.11%	0.70	13.86%	11.74%	10.37%
OGE Energy Corporation	OGE	2.11%	0.74	13.86%	11.74%	10.83%
Pinnacle West Capital Corporation	PNW	2.11%	0.66	13.86%	11.74%	9.89%
PNM Resources, Inc.	PNM	2.11%	0.75	13.86%	11.74%	10.92%
Portland General Electric Company	POR	2.11%	0.68	13.86%	11.74%	10.05%
PPL Corporation	PPL	2.11%	0.63	13.86%	11.74%	9.51%
Southern Company	SO	2.11%	0.53	13.86%	11.74%	8.35%
Xcel Energy Inc.	XEL	2.11%	0.58	13.86%	11.74%	8.92%
Mean						9.86%

Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional

[3] Source: Exhibit No. AEB-8, page 7 (S&P Earnings and Estimates Report)

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

CAPITAL ASSET PRICING MODEL -- NEAR-TERM PROJECTED RISK-FREE RATE & BLOOMBERG BETA

$$K = R_f + \beta (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]
Company	Ticker	Projected 30-year U.S. Treasury bond yield (2021 - 2025)	Beta (β)	Market Return (Rm)	Market Risk Premium (Rm - Rf)	ROE (K)
ALLETE, Inc.	ALE	2.32%	0.70	13.86%	11.54%	10.42%
Alliant Energy Corporation	LNT	2.32%	0.69	13.86%	11.54%	10.33%
Ameren Corporation	AEE	2.32%	0.65	13.86%	11.54%	9.84%
American Electric Power Company, Inc.	AEP	2.32%	0.63	13.86%	11.54%	9.60%
Avista Corporation	AVA	2.32%	0.70	13.86%	11.54%	10.43%
CenterPoint Energy, Inc.	CNP	2.32%	0.73	13.86%	11.54%	10.73%
CMS Energy Corporation	CMS	2.32%	0.65	13.86%	11.54%	9.82%
Dominion Resources, Inc.	D	2.32%	0.60	13.86%	11.54%	9.28%
DTE Energy Company	DTE	2.32%	0.66	13.86%	11.54%	9.99%
Duke Energy Corporation	DUK	2.32%	0.53	13.86%	11.54%	8.48%
Entergy Corporation	ETR	2.32%	0.65	13.86%	11.54%	9.78%
Evergy, Inc.	EVRG	2.32%	0.63	13.86%	11.54%	9.62%
FirstEnergy Corporation	FE	2.32%	0.68	13.86%	11.54%	10.18%
IDACORP, Inc.	IDA	2.32%	0.73	13.86%	11.54%	10.76%
NextEra Energy, Inc.	NEE	2.32%	0.64	13.86%	11.54%	9.74%
NorthWestern Corporation	NWE	2.32%	0.70	13.86%	11.54%	10.43%
OGE Energy Corporation	OGE	2.32%	0.74	13.86%	11.54%	10.88%
Pinnacle West Capital Corporation	PNW	2.32%	0.66	13.86%	11.54%	9.96%
PNM Resources, Inc.	PNM	2.32%	0.75	13.86%	11.54%	10.97%
Portland General Electric Company	POR	2.32%	0.68	13.86%	11.54%	10.12%
PPL Corporation	PPL	2.32%	0.63	13.86%	11.54%	9.59%
Southern Company	SO	2.32%	0.53	13.86%	11.54%	8.44%
Xcel Energy Inc.	XEL	2.32%	0.58	13.86%	11.54%	9.00%
Mean						9.93%

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 38, No. 10, October 1, 2019, at 2

[2] Source: Bloomberg Professional

[3] Source: Exhibit No. AEB-8, page 7 (S&P Earnings and Estimates Report)

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

CAPITAL ASSET PRICING MODEL -- LONG-TERM PROJECTED RISK-FREE RATE & BLOOMBERG BETA

$$K = R_f + \beta (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]
Company	Ticker	Projected 30-year U.S. Treasury bond yield (2021 - 2025)	Beta (β)	Market Return (Rm)	Market Risk Premium (Rm - Rf)	ROE (K)
ALLETE, Inc.	ALE	3.60%	0.70	13.86%	10.26%	10.80%
Alliant Energy Corporation	LNT	3.60%	0.69	13.86%	10.26%	10.72%
Ameren Corporation	AEE	3.60%	0.65	13.86%	10.26%	10.29%
American Electric Power Company, Inc.	AEP	3.60%	0.63	13.86%	10.26%	10.07%
Avista Corporation	AVA	3.60%	0.70	13.86%	10.26%	10.81%
CenterPoint Energy, Inc.	CNP	3.60%	0.73	13.86%	10.26%	11.07%
CMS Energy Corporation	CMS	3.60%	0.65	13.86%	10.26%	10.27%
Dominion Resources, Inc.	D	3.60%	0.60	13.86%	10.26%	9.79%
DTE Energy Company	DTE	3.60%	0.66	13.86%	10.26%	10.42%
Duke Energy Corporation	DUK	3.60%	0.53	13.86%	10.26%	9.07%
Entergy Corporation	ETR	3.60%	0.65	13.86%	10.26%	10.24%
Evergy, Inc.	EVRG	3.60%	0.63	13.86%	10.26%	10.09%
FirstEnergy Corporation	FE	3.60%	0.68	13.86%	10.26%	10.59%
IDACORP, Inc.	IDA	3.60%	0.73	13.86%	10.26%	11.10%
NextEra Energy, Inc.	NEE	3.60%	0.64	13.86%	10.26%	10.20%
NorthWestern Corporation	NWE	3.60%	0.70	13.86%	10.26%	10.81%
OGE Energy Corporation	OGE	3.60%	0.74	13.86%	10.26%	11.21%
Pinnacle West Capital Corporation	PNW	3.60%	0.66	13.86%	10.26%	10.39%
PNM Resources, Inc.	PNM	3.60%	0.75	13.86%	10.26%	11.29%
Portland General Electric Company	POR	3.60%	0.68	13.86%	10.26%	10.53%
PPL Corporation	PPL	3.60%	0.63	13.86%	10.26%	10.06%
Southern Company	SO	3.60%	0.53	13.86%	10.26%	9.05%
Xcel Energy Inc.	XEL	3.60%	0.58	13.86%	10.26%	9.54%
Mean						10.37%

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 38, No. 6, June 1, 2019, at 14

[2] Source: Bloomberg Professional

[3] Source: Exhibit No. AEB-8, page 7 (S&P Earnings and Estimates Report)

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

MARKET RISK PREMIUM DERIVED FROM S&P EARNINGS AND ESTIMATE REPORT

[6] S&P's estimate of the S&P 500 Dividend Yield	1.98%
[7] S&P's estimate of the S&P 500 Growth Rate	11.76%
[8] S&P 500 Estimated Required Market Return	13.86%

MARKET RISK PREMIUM DERIVED FROM ANALYSTS LONG-TERM GROWTH ESTIMATES

[9] Estimated Weighted Average Dividend Yield	1.97%
[10] Estimated Weighted Average Long-Term Growth Rate	11.74%
[11] S&P 500 Estimated Required Market Return	13.83%

STANDARD AND POOR'S 500 INDEX

Name	Ticker	[12] Weight in Index	[13] Estimated Dividend Yield	[14] Cap-Weighted Dividend Yield	[15] Long-Term Growth Est.	[16] Cap-Weighted Long-Term Growth Est.
LyondellBasell Industries NV	LYB	0.12%	4.69%	0.55%	7.10%	0.83%
American Express Co	AXP	0.38%	1.45%	0.55%	9.36%	3.57%
Verizon Communications Inc	VZ	0.97%	4.08%	3.95%	2.56%	2.49%
Broadcom Inc	AVGO	0.43%	3.84%	1.63%	13.48%	5.74%
Boeing Co/The	BA	0.83%	2.16%	1.80%	7.93%	6.60%
Caterpillar Inc	CAT	0.28%	3.26%	0.90%	13.15%	3.63%
JPMorgan Chase & Co	JPM	1.46%	3.06%	4.47%	4.65%	6.80%
Chevron Corp	CVX	0.88%	4.01%	3.51%	1.60%	1.40%
Coca-Cola Co/The	KO	0.90%	2.94%	2.66%	6.96%	6.30%
AbbVie Inc	ABBV	0.44%	5.65%	2.46%	6.05%	2.63%
Walt Disney Co/The	DIS	0.91%	1.35%	1.23%	2.85%	2.60%
FleetCor Technologies Inc	FLT	0.10%	n/a	n/a	15.58%	1.50%
Extra Space Storage Inc	EXR	0.06%	3.08%	0.18%	4.72%	0.28%
Exxon Mobil Corp	XOM	1.16%	4.93%	5.72%	8.52%	9.90%
Phillips 66	PSX	0.18%	3.52%	0.63%	2.20%	0.39%
General Electric Co	GE	0.30%	0.45%	0.14%	5.70%	1.73%
HP Inc	HPQ	0.11%	3.39%	0.37%	1.66%	0.18%
Home Depot Inc/The	HD	0.99%	2.34%	2.32%	9.37%	9.26%
International Business Machines Corp	IBM	0.50%	4.46%	2.23%	1.92%	0.96%
Concho Resources Inc	CXO	0.05%	0.74%	0.04%	13.81%	0.73%
Johnson & Johnson	JNJ	1.33%	2.94%	3.90%	6.09%	8.09%
McDonald's Corp	MCD	0.63%	2.33%	1.48%	8.67%	5.49%
Merck & Co Inc	MRK	0.84%	2.61%	2.19%	11.52%	9.65%
3M Co	MMM	0.37%	3.50%	1.29%	6.95%	2.56%
American Water Works Co Inc	AWK	0.09%	1.61%	0.14%	8.75%	0.76%
Bank of America Corp	BAC	1.06%	2.47%	2.61%	8.80%	9.29%
Baker Hughes a GE Co	BHGE	0.06%	3.10%	0.18%	32.29%	1.89%
Pfizer Inc	PFE	0.77%	4.01%	3.10%	3.88%	2.99%
Procter & Gamble Co/The	PG	1.21%	2.40%	2.90%	7.42%	8.98%
AT&T Inc	T	1.07%	5.39%	5.79%	5.62%	6.04%
Travelers Cos Inc/The	TRV	0.15%	2.21%	0.33%	12.38%	1.86%
United Technologies Corp	UTX	0.46%	2.15%	0.99%	9.75%	4.47%
Analog Devices Inc	ADI	0.16%	1.93%	0.31%	9.72%	1.56%
Walmart Inc	WMT	1.31%	1.79%	2.34%	7.97%	10.46%
Cisco Systems Inc	CSCO	0.82%	2.83%	2.31%	6.48%	5.28%
Intel Corp	INTC	0.89%	2.45%	2.17%	5.98%	5.31%
General Motors Co	GM	0.21%	4.06%	0.84%	10.46%	2.17%
Microsoft Corp	MSFT	4.13%	1.47%	6.06%	10.51%	43.35%
Dollar General Corp	DG	0.16%	0.81%	0.13%	10.68%	1.70%
Cigna Corp	CI	0.22%	0.03%	0.01%	11.24%	2.50%
Kinder Morgan Inc/DE	KMI	0.18%	4.85%	0.88%	11.90%	2.16%
Citigroup Inc	C	0.61%	2.95%	1.79%	11.65%	7.06%
American International Group Inc	AIG	0.19%	2.30%	0.43%	11.00%	2.07%
Honeywell International Inc	HON	0.47%	2.13%	1.01%	7.70%	3.65%
Altria Group Inc	MO	0.30%	8.22%	2.44%	7.10%	2.11%
HCA Healthcare Inc	HCA	0.16%	1.33%	0.21%	10.20%	1.63%
Under Armour Inc	UA	0.01%	n/a	n/a	30.97%	0.45%
International Paper Co	IP	0.06%	4.78%	0.31%	4.55%	0.29%
Hewlett Packard Enterprise Co	HPE	0.08%	2.97%	0.23%	6.07%	0.47%
Abbott Laboratories	ABT	0.57%	1.53%	0.88%	9.58%	5.51%
Aflac Inc	AFL	0.15%	2.06%	0.31%	4.52%	0.68%
Air Products & Chemicals Inc	APD	0.19%	2.09%	0.40%	12.71%	2.42%
Royal Caribbean Cruises Ltd	RCL	0.09%	2.88%	0.25%	11.00%	0.97%
American Electric Power Co Inc	AEP	0.18%	2.86%	0.51%	5.78%	1.04%
Hess Corp	HES	0.07%	1.65%	0.12%	-5.43%	-0.39%
Aon PLC	AON	0.18%	0.91%	0.16%	10.90%	1.93%
Apache Corp	APA	0.04%	3.91%	0.15%	-8.57%	-0.32%
Archer-Daniels-Midland Co	ADM	0.09%	3.41%	0.30%	0.10%	0.01%
Automatic Data Processing Inc	ADP	0.27%	1.96%	0.53%	12.55%	3.42%
Verisk Analytics Inc	VRSK	0.10%	0.63%	0.06%	18.47%	1.86%
AutoZone Inc	AZO	0.10%	n/a	n/a	11.26%	1.16%

STANDARD AND POOR'S 500 INDEX

Name	Ticker	[12]	[13]	[14]	[15]	[16]
		Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
Avery Dennison Corp	AVY	0.04%	2.04%	0.08%	4.95%	0.18%
MSCI Inc	MSCI	0.07%	1.25%	0.09%	11.43%	0.82%
Ball Corp	BLL	0.09%	0.82%	0.08%	6.70%	0.63%
Bank of New York Mellon Corp/The	BK	0.17%	2.74%	0.45%	6.47%	1.07%
Baxter International Inc	BAX	0.17%	1.01%	0.17%	11.96%	2.08%
Becton Dickinson and Co	BDX	0.27%	1.22%	0.32%	12.19%	3.24%
Berkshire Hathaway Inc	BRK/B	1.12%	n/a	n/a	61.80%	69.28%
Best Buy Co Inc	BBY	0.07%	2.90%	0.20%	6.60%	0.47%
H&R Block Inc	HRB	0.02%	4.40%	0.08%	10.00%	0.18%
Boston Scientific Corp	BSX	0.22%	n/a	n/a	8.88%	1.96%
Bristol-Myers Squibb Co	BMJ	0.32%	3.23%	1.04%	7.96%	2.57%
Fortune Brands Home & Security Inc	FBHS	0.03%	1.61%	0.05%	9.61%	0.29%
Brown-Forman Corp	BF/B	0.08%	1.06%	0.08%	6.44%	0.48%
Cabot Oil & Gas Corp	COG	0.03%	2.05%	0.06%	34.52%	0.99%
Campbell Soup Co	CPB	0.05%	2.98%	0.16%	7.04%	0.39%
Kansas City Southern	KSU	0.05%	1.08%	0.06%	12.73%	0.66%
Hilton Worldwide Holdings Inc	HLT	0.10%	0.64%	0.07%	12.28%	1.28%
Carnival Corp	CCL	0.09%	4.58%	0.41%	8.47%	0.76%
Qorvo Inc	QRVO	0.03%	n/a	n/a	10.76%	0.37%
CenturyLink Inc	CTL	0.05%	8.01%	0.42%	5.06%	0.27%
UDR Inc	UDR	0.06%	2.83%	0.16%	6.37%	0.35%
Clorox Co/The	CLX	0.07%	2.79%	0.21%	3.91%	0.29%
CMS Energy Corp	CMS	0.07%	2.39%	0.17%	7.20%	0.51%
Newell Brands Inc	NWL	0.03%	4.91%	0.15%	-3.42%	-0.11%
Colgate-Palmolive Co	CL	0.25%	2.34%	0.57%	4.52%	1.11%
Comerica Inc	CMA	0.04%	4.06%	0.16%	12.93%	0.50%
IPG Photonics Corp	IPGP	0.03%	n/a	n/a	6.13%	0.17%
Conagra Brands Inc	CAG	0.06%	2.77%	0.16%	7.60%	0.44%
Consolidated Edison Inc	ED	0.12%	3.13%	0.38%	3.88%	0.47%
SL Green Realty Corp	SLG	0.03%	4.16%	0.11%	6.80%	0.18%
Corning Inc	GLW	0.09%	2.81%	0.24%	9.34%	0.81%
Cummins Inc	CMI	0.10%	3.22%	0.32%	6.70%	0.67%
Danaher Corp	DHR	0.40%	0.47%	0.19%	14.95%	6.02%
Target Corp	TGT	0.21%	2.47%	0.52%	8.23%	1.75%
Deere & Co	DE	0.21%	1.80%	0.37%	6.51%	1.34%
Dominion Energy Inc	D	0.25%	4.53%	1.15%	4.53%	1.15%
Dover Corp	DOV	0.06%	1.97%	0.11%	10.97%	0.62%
Alliant Energy Corp	LNT	0.05%	2.63%	0.13%	5.63%	0.28%
Duke Energy Corp	DUK	0.27%	3.94%	1.07%	5.01%	1.36%
Regency Centers Corp	REG	0.05%	3.37%	0.15%	4.62%	0.21%
Eaton Corp PLC	ETN	0.14%	3.42%	0.46%	8.60%	1.17%
Ecolab Inc	ECL	0.22%	0.93%	0.21%	13.13%	2.91%
PerkinElmer Inc	PKI	0.04%	0.33%	0.01%	16.84%	0.62%
Emerson Electric Co	EMR	0.16%	2.93%	0.47%	8.06%	1.29%
EOG Resources Inc	EOG	0.17%	1.55%	0.26%	6.50%	1.09%
Entergy Corp	ETR	0.09%	3.10%	0.28%	0.08%	0.01%
Equifax Inc	EFX	0.07%	1.11%	0.07%	8.74%	0.58%
IQVIA Holdings Inc	IQV	0.11%	n/a	n/a	17.75%	2.02%
Garther Inc	IT	0.05%	n/a	n/a	13.08%	0.66%
FedEx Corp	FDX	0.15%	1.79%	0.26%	20.72%	3.06%
Macy's Inc	M	0.02%	9.72%	0.18%	3.50%	0.07%
FMC Corp	FMC	0.04%	1.82%	0.08%	9.00%	0.40%
Ford Motor Co	F	0.14%	6.55%	0.91%	2.58%	0.36%
NextEra Energy Inc	NEE	0.44%	2.15%	0.95%	5.46%	2.42%
Franklin Resources Inc	BEN	0.06%	3.60%	0.20%	10.00%	0.57%
Freepport-McMoRan Inc	FCX	0.05%	2.09%	0.11%	3.81%	0.21%
Gap Inc/The	GPS	0.03%	5.59%	0.14%	5.03%	0.13%
General Dynamics Corp	GD	0.21%	2.23%	0.46%	8.54%	1.75%
General Mills Inc	GIS	0.13%	3.56%	0.46%	6.50%	0.84%
Genuine Parts Co	GPC	0.06%	3.06%	0.17%	4.77%	0.27%
Atmos Energy Corp	ATO	0.05%	1.84%	0.10%	7.50%	0.39%
WW Grainger Inc	GWW	0.06%	1.94%	0.12%	10.90%	0.69%
Halliburton Co	HAL	0.06%	3.82%	0.25%	5.55%	0.36%
Harley-Davidson Inc	HOG	0.02%	4.17%	0.09%	5.90%	0.13%
L3Harris Technologies Inc	LHX	0.18%	1.44%	0.26%	n/a	n/a
HCP Inc	HCP	0.07%	4.15%	0.28%	2.94%	0.20%
Helmerich & Payne Inc	HP	0.02%	7.09%	0.12%	6.57%	0.11%
Fortive Corp	FTV	0.09%	0.41%	0.04%	9.23%	0.83%
Hershey Co/The	HSY	0.09%	2.00%	0.18%	7.07%	0.63%
Synchrony Financial	SYF	0.09%	2.58%	0.23%	6.57%	0.58%
Hormel Foods Corp	HRL	0.09%	1.92%	0.17%	5.70%	0.52%
Arthur J Gallagher & Co	AJG	0.06%	1.92%	0.12%	9.83%	0.64%
Mondelez International Inc	MDLZ	0.31%	2.06%	0.64%	8.55%	2.65%
CenterPoint Energy Inc	CNP	0.06%	3.81%	0.22%	5.90%	0.35%
Humana Inc	HUM	0.13%	0.86%	0.12%	12.83%	1.72%
Willis Towers Watson PLC	WLTW	0.10%	1.35%	0.13%	14.40%	1.39%
Illinois Tool Works Inc	ITW	0.20%	2.74%	0.54%	6.52%	1.28%
CDW Corp/DE	CDW	0.07%	0.96%	0.07%	13.55%	0.94%
Ingersoll-Rand PLC	IR	0.12%	1.72%	0.20%	9.48%	1.10%
Interpublic Group of Cos Inc/The	IPG	0.03%	4.36%	0.14%	5.85%	0.19%
International Flavors & Fragrances Inc	IFF	0.05%	2.45%	0.12%	12.65%	0.64%
Jacobs Engineering Group Inc	JEC	0.05%	0.74%	0.04%	15.62%	0.75%

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Name	Ticker	[12] Weight in Index	[13] Estimated Dividend Yield	[14] Cap-Weighted Dividend Yield	[15] Long-Term Growth Est.	[16] Cap-Weighted Long-Term Growth Est.
Hanesbrands Inc	HBI	0.02%	3.92%	0.08%	5.08%	0.11%
Kellogg Co	K	0.09%	3.54%	0.30%	2.09%	0.18%
Broadridge Financial Solutions Inc	BR	0.06%	1.74%	0.10%	7.80%	0.43%
Perrigo Co PLC	PRGO	0.03%	1.50%	0.04%	-1.60%	-0.05%
Kimberly-Clark Corp	KMB	0.19%	2.90%	0.55%	4.78%	0.91%
Kimco Realty Corp	KIM	0.03%	5.36%	0.18%	3.99%	0.14%
Kohl's Corp	KSS	0.03%	5.40%	0.17%	6.17%	0.19%
Oracle Corp	ORCL	0.70%	1.74%	1.23%	8.38%	5.89%
Kroger Co/The	KR	0.08%	2.48%	0.20%	4.75%	0.38%
Leggett & Platt Inc	LEG	0.02%	3.91%	0.08%	n/a	n/a
Lennar Corp	LEN	0.06%	0.29%	0.02%	9.42%	0.58%
Eli Lilly & Co	LLY	0.42%	2.31%	0.97%	9.93%	4.17%
L Brands Inc	LB	0.02%	6.13%	0.13%	9.23%	0.19%
Charter Communications Inc	CHTR	0.35%	n/a	n/a	29.71%	10.54%
Lincoln National Corp	LNC	0.05%	2.45%	0.12%	9.00%	0.42%
Loews Corp	L	0.06%	0.49%	0.03%	n/a	n/a
Lowe's Cos Inc	LOW	0.33%	2.00%	0.66%	14.56%	4.80%
Host Hotels & Resorts Inc	HST	0.05%	4.63%	0.23%	19.82%	0.97%
Xerox Holdings Corp	XRX	0.03%	3.34%	0.09%	6.20%	0.16%
IDEX Corp	IEX	0.05%	1.22%	0.06%	11.20%	0.54%
Marsh & McLennan Cos Inc	MMC	0.20%	1.82%	0.36%	12.58%	2.48%
Masco Corp	MAS	0.05%	1.30%	0.06%	9.19%	0.43%
S&P Global Inc	SPGI	0.23%	0.93%	0.22%	10.47%	2.46%
Medtronic PLC	MDT	0.57%	1.99%	1.13%	7.26%	4.11%
CVS Health Corp	CVS	0.32%	3.17%	1.01%	6.23%	1.99%
DuPont de Nemours Inc	DD	0.21%	1.68%	0.35%	6.55%	1.35%
Micron Technology Inc	MU	0.18%	n/a	n/a	4.02%	0.74%
Motorola Solutions Inc	MSI	0.11%	1.34%	0.15%	7.05%	0.78%
Cboe Global Markets Inc	CBOE	0.05%	1.25%	0.06%	10.00%	0.50%
Mylan NV	MYL	0.04%	n/a	n/a	-5.72%	-0.23%
Laboratory Corp of America Holdings	LH	0.06%	n/a	n/a	7.36%	0.47%
Newmont Goldcorp Corp	NEM	0.12%	1.48%	0.18%	5.75%	0.69%
NIKE Inc	NKE	0.46%	0.94%	0.43%	13.82%	6.32%
NiSource Inc	NI	0.04%	2.67%	0.12%	5.28%	0.23%
Noble Energy Inc	NBL	0.04%	2.14%	0.09%	16.58%	0.69%
Norfolk Southern Corp	NSC	0.18%	2.09%	0.39%	13.68%	2.52%
Principal Financial Group Inc	PFJ	0.06%	3.85%	0.24%	6.87%	0.43%
Eversource Energy	ES	0.11%	2.50%	0.27%	6.42%	0.69%
Northrop Grumman Corp	NOC	0.25%	1.41%	0.35%	6.84%	1.68%
Wells Fargo & Co	WFC	0.86%	4.04%	3.49%	9.86%	8.51%
Nucor Corp	NUE	0.06%	3.14%	0.19%	0.35%	0.02%
PVH Corp	PVH	0.03%	0.17%	0.00%	6.52%	0.17%
Occidental Petroleum Corp	OXY	0.15%	7.11%	1.10%	6.30%	0.97%
Omnicom Group Inc	OMC	0.07%	3.32%	0.22%	3.58%	0.24%
ONEOK Inc	OKE	0.12%	4.83%	0.57%	13.11%	1.55%
Raymond James Financial Inc	RJF	0.04%	1.65%	0.07%	17.00%	0.76%
Parker-Hannifin Corp	PH	0.09%	1.95%	0.18%	8.24%	0.74%
Rollins Inc	ROL	0.04%	1.23%	0.05%	n/a	n/a
PPL Corp	PPL	0.09%	5.24%	0.46%	1.35%	0.12%
ConocoPhillips	COP	0.25%	2.14%	0.53%	3.45%	0.85%
PulteGroup Inc	PHM	0.04%	1.20%	0.05%	8.25%	0.32%
Pinnacle West Capital Corp	PNW	0.04%	3.04%	0.13%	5.35%	0.23%
PNC Financial Services Group Inc/The	PNC	0.24%	3.28%	0.80%	7.64%	1.85%
PPG Industries Inc	PPG	0.11%	1.72%	0.19%	6.82%	0.74%
Progressive Corp/The	PGR	0.18%	0.52%	0.09%	6.23%	1.09%
Public Service Enterprise Group Inc	PEG	0.12%	3.03%	0.37%	5.46%	0.67%
Raytheon Co	RTN	0.21%	1.92%	0.41%	8.83%	1.87%
Robert Half International Inc	RHI	0.03%	2.23%	0.06%	-1.79%	-0.05%
Edison International	EIX	0.10%	3.25%	0.34%	4.81%	0.50%
Schlumberger Ltd	SLB	0.18%	5.85%	1.08%	28.00%	5.14%
Charles Schwab Corp/The	SCHW	0.21%	1.63%	0.35%	3.94%	0.84%
Sherwin-Williams Co/The	SHW	0.20%	0.82%	0.16%	11.33%	2.23%
JM Smucker Co/The	SJM	0.05%	3.20%	0.16%	2.97%	0.15%
Snap-on Inc	SNA	0.03%	2.43%	0.08%	6.91%	0.23%
AMETEK Inc	AME	0.08%	0.61%	0.05%	9.84%	0.80%
Southern Co/The	SO	0.25%	4.01%	1.01%	3.18%	0.80%
BB&T Corp	BBT	0.16%	3.37%	0.54%	7.24%	1.15%
Southwest Airlines Co	LUV	0.11%	1.33%	0.15%	8.42%	0.95%
Stanley Black & Decker Inc	SWK	0.09%	1.91%	0.16%	8.88%	0.76%
Public Storage	PSA	0.17%	3.26%	0.54%	4.11%	0.68%
Arista Networks Inc	ANET	0.07%	n/a	n/a	21.39%	1.52%
SunTrust Banks Inc	STI	0.12%	3.26%	0.39%	2.37%	0.28%
Sysco Corp	SYYS	0.16%	1.96%	0.31%	11.13%	1.76%
Corteva Inc	CTVA	0.08%	1.86%	0.15%	95.20%	7.76%
Texas Instruments Inc	TXN	0.47%	2.79%	1.31%	8.35%	3.92%
Textron Inc	TXT	0.04%	0.16%	0.01%	11.86%	0.52%
Thermo Fisher Scientific Inc	TMO	0.45%	0.26%	0.12%	11.00%	4.99%
Tiffany & Co	TIF	0.04%	2.50%	0.11%	8.42%	0.37%
TJX Cos Inc/The	TJX	0.26%	1.65%	0.43%	11.07%	2.90%
Globe Life Inc	GL	0.04%	0.72%	0.03%	7.60%	0.31%
Johnson Controls International plc	JCI	0.14%	2.37%	0.32%	7.57%	1.03%
Ulta Beauty Inc	ULTA	0.06%	n/a	n/a	19.25%	1.10%

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Name	Ticker	[12] Weight in Index	[13] Estimated Dividend Yield	[14] Cap-Weighted Dividend Yield	[15] Long-Term Growth Est.	[16] Cap-Weighted Long-Term Growth Est.
Union Pacific Corp	UNP	0.44%	2.40%	1.06%	12.90%	5.72%
Keysight Technologies Inc	KEYS	0.07%	n/a	n/a	n/a	n/a
UnitedHealth Group Inc	UNH	0.80%	1.99%	1.59%	12.28%	9.83%
Unum Group	UNM	0.02%	3.84%	0.09%	9.00%	0.22%
Marathon Oil Corp	MRO	0.04%	1.63%	0.06%	1.55%	0.06%
Varian Medical Systems Inc	VAR	0.04%	n/a	n/a	8.40%	0.35%
Ventas Inc	VTR	0.11%	4.34%	0.46%	4.85%	0.51%
VF Corp	VFC	0.14%	1.93%	0.27%	10.42%	1.44%
Vornado Realty Trust	VNO	0.05%	4.15%	0.20%	5.46%	0.26%
Vulcan Materials Co	VMC	0.08%	0.82%	0.06%	18.12%	1.41%
Weyerhaeuser Co	WY	0.08%	4.91%	0.39%	2.40%	0.19%
Whirlpool Corp	WHR	0.04%	3.03%	0.12%	4.61%	0.18%
Williams Cos Inc/The	WMB	0.11%	6.32%	0.72%	8.00%	0.91%
WEC Energy Group Inc	WEC	0.12%	2.48%	0.29%	6.44%	0.75%
Adobe Inc	ADBE	0.52%	n/a	n/a	16.00%	8.32%
AES Corp/VA	AES	0.04%	3.34%	0.14%	8.12%	0.34%
Amgen Inc	AMGN	0.45%	3.00%	1.35%	6.47%	2.92%
Apple Inc	AAPL	3.93%	1.38%	5.41%	10.50%	41.31%
Autodesk Inc	ADSK	0.13%	n/a	n/a	47.95%	6.05%
Cintas Corp	CTAS	0.11%	0.76%	0.08%	11.07%	1.21%
Comcast Corp	CMCSA	0.79%	1.86%	1.48%	9.93%	7.89%
Molson Coors Brewing Co	TAP	0.04%	3.97%	0.17%	-2.40%	-0.11%
KLA Corp	KLAC	0.10%	1.88%	0.18%	13.97%	1.37%
Marriott International Inc/MD	MAR	0.16%	1.54%	0.25%	8.50%	1.35%
McCormick & Co Inc/MD	MKC	0.07%	1.46%	0.11%	6.20%	0.46%
Nordstrom Inc	JWN	0.02%	4.40%	0.09%	5.83%	0.12%
PACCAR Inc	PCAR	0.09%	1.83%	0.17%	4.90%	0.46%
Costco Wholesale Corp	COST	0.49%	0.90%	0.44%	10.51%	5.18%
First Republic Bank/CA	FRC	0.06%	0.79%	0.05%	6.99%	0.43%
Stryker Corp	SYK	0.31%	0.96%	0.30%	9.46%	2.98%
Tyson Foods Inc	TSN	0.10%	1.74%	0.17%	4.90%	0.48%
Lamb Weston Holdings Inc	LW	0.04%	1.10%	0.05%	7.50%	0.31%
Applied Materials Inc	AMAT	0.18%	1.68%	0.30%	5.55%	0.99%
American Airlines Group Inc	AAL	0.05%	1.48%	0.07%	6.37%	0.30%
Cardinal Health Inc	CAH	0.05%	4.08%	0.22%	2.49%	0.13%
Celgene Corp	CELG	0.27%	n/a	n/a	16.10%	4.40%
Cerner Corp	CERN	0.08%	1.06%	0.09%	13.55%	1.14%
Cincinnati Financial Corp	CINF	0.07%	1.92%	0.14%	n/a	n/a
DR Horton Inc	DHI	0.08%	1.14%	0.09%	12.60%	0.95%
Flowserve Corp	FLS	0.02%	1.63%	0.04%	15.19%	0.36%
Electronic Arts Inc	EA	0.11%	n/a	n/a	8.54%	0.96%
Expeditors International of Washington Inc	EXPD	0.05%	1.35%	0.07%	9.73%	0.48%
Fastenal Co	FAST	0.07%	2.69%	0.20%	7.15%	0.52%
M&T Bank Corp	MTB	0.08%	2.53%	0.21%	5.33%	0.44%
Xcel Energy Inc	XEL	0.13%	2.50%	0.32%	5.53%	0.72%
Fiserv Inc	FISV	0.27%	n/a	n/a	14.00%	3.83%
Fifth Third Bancorp	FITB	0.08%	3.51%	0.27%	4.65%	0.36%
Gilead Sciences Inc	GILD	0.31%	3.98%	1.24%	7.60%	2.37%
Hasbro Inc	HAS	0.06%	2.29%	0.13%	9.30%	0.54%
Huntington Bancshares Inc/OH	HBAN	0.06%	4.20%	0.24%	4.99%	0.29%
Welltower Inc	WELL	0.14%	3.84%	0.55%	6.34%	0.90%
Biogen Inc	BIIB	0.17%	n/a	n/a	3.33%	0.56%
Northern Trust Corp	NTRS	0.08%	3.00%	0.23%	7.25%	0.57%
Packaging Corp of America	PKG	0.04%	2.98%	0.12%	10.00%	0.39%
Paychex Inc	PAYX	0.12%	3.00%	0.35%	7.25%	0.84%
People's United Financial Inc	PBCT	0.02%	4.54%	0.11%	2.00%	0.05%
QUALCOMM Inc	QCOM	0.36%	3.25%	1.17%	14.37%	5.18%
Roper Technologies Inc	ROP	0.14%	0.52%	0.07%	13.03%	1.88%
Ross Stores Inc	ROST	0.15%	0.93%	0.14%	9.38%	1.45%
IDEXX Laboratories Inc	IDXX	0.09%	n/a	n/a	18.85%	1.72%
Starbucks Corp	SBUX	0.41%	1.63%	0.67%	13.17%	5.42%
KeyCorp	KEY	0.07%	4.15%	0.29%	4.69%	0.33%
Fox Corp	FOXA	0.04%	1.46%	0.06%	3.57%	0.16%
Fox Corp	FOX	0.03%	1.46%	0.05%	-10.86%	-0.35%
State Street Corp	STT	0.09%	3.51%	0.30%	3.98%	0.34%
Norwegian Cruise Line Holdings Ltd	NCLH	0.04%	n/a	n/a	8.27%	0.36%
US Bancorp	USB	0.34%	3.04%	1.03%	6.33%	2.15%
AO Smith Corp	AOS	0.03%	1.84%	0.05%	8.00%	0.21%
Symantec Corp	SYMC	0.06%	1.27%	0.07%	3.35%	0.19%
T Rowe Price Group Inc	TROW	0.10%	2.66%	0.28%	8.20%	0.86%
Waste Management Inc	WM	0.19%	1.78%	0.34%	7.74%	1.47%
CBS Corp	CBS	0.06%	1.78%	0.10%	7.63%	0.42%
Allergan PLC	AGN	0.21%	1.76%	0.38%	8.00%	1.72%
Constellation Brands Inc	STZ	0.13%	1.45%	0.20%	7.83%	1.06%
Xilinx Inc	XLNX	0.09%	1.54%	0.15%	9.45%	0.89%
DENTSPLY SIRONA Inc	XRAY	0.05%	0.75%	0.03%	13.14%	0.61%
Zions Bancorp NA	ZION	0.03%	3.05%	0.09%	6.24%	0.19%
Alaska Air Group Inc	ALK	0.03%	2.16%	0.07%	21.55%	0.67%
Invesco Ltd	IVZ	0.03%	7.32%	0.23%	7.00%	0.22%
Linde PLC	LIN	0.41%	1.81%	0.74%	13.95%	5.68%
Intuit Inc	INTU	0.27%	0.80%	0.21%	15.69%	4.22%
Morgan Stanley	MS	0.27%	3.28%	0.90%	8.26%	2.26%

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Name	Ticker	[12] Weight in Index	[13] Estimated Dividend Yield	[14] Cap-Weighted Dividend Yield	[15] Long-Term Growth Est.	[16] Cap-Weighted Long-Term Growth Est.
Microchip Technology Inc	MCHP	0.09%	1.58%	0.14%	7.65%	0.66%
Chubb Ltd	CB	0.29%	1.86%	0.53%	10.73%	3.07%
Hologic Inc	HOLX	0.05%	n/a	n/a	8.95%	0.47%
Citizens Financial Group Inc	CFG	0.06%	4.07%	0.25%	5.42%	0.33%
O'Reilly Automotive Inc	ORLY	0.12%	n/a	n/a	13.64%	1.62%
Allstate Corp/The	ALL	0.14%	1.84%	0.26%	6.23%	0.87%
FLIR Systems Inc	FLIR	0.03%	1.29%	0.04%	13.10%	0.36%
Equity Residential	EQR	0.12%	2.63%	0.33%	8.52%	1.06%
BorgWarner Inc	BWA	0.03%	1.85%	0.05%	1.93%	0.06%
Incyte Corp	INCY	0.06%	n/a	n/a	43.15%	2.68%
Simon Property Group Inc	SPG	0.19%	5.40%	1.01%	5.08%	0.95%
Eastman Chemical Co	EMN	0.04%	3.36%	0.13%	5.44%	0.21%
Twitter Inc	TWTR	0.12%	n/a	n/a	31.80%	3.94%
AvalonBay Communities Inc	AVB	0.12%	2.82%	0.33%	6.68%	0.78%
Prudential Financial Inc	PRU	0.14%	4.45%	0.63%	10.67%	1.50%
United Parcel Service Inc	UPS	0.33%	3.20%	1.04%	8.93%	2.91%
Apartment Investment & Management Co	AIV	0.03%	2.99%	0.09%	3.37%	0.10%
Walgreens Boots Alliance Inc	WBA	0.19%	3.31%	0.64%	5.47%	1.06%
McKesson Corp	MCK	0.10%	1.20%	0.12%	2.39%	0.23%
Lockheed Martin Corp	LMT	0.43%	2.46%	1.05%	10.10%	4.33%
AmerisourceBergen Corp	ABC	0.07%	1.94%	0.13%	14.01%	0.93%
Capital One Financial Corp	COF	0.17%	1.76%	0.29%	5.13%	0.85%
Waters Corp	WAT	0.06%	n/a	n/a	11.26%	0.65%
Dollar Tree Inc	DLTR	0.11%	n/a	n/a	8.39%	0.88%
Darden Restaurants Inc	DRI	0.06%	2.98%	0.17%	9.31%	0.53%
NVR Inc	NVR	0.05%	n/a	n/a	10.66%	0.56%
NetApp Inc	NTAP	0.05%	3.66%	0.18%	5.24%	0.25%
Citrix Systems Inc	CTXS	0.05%	1.45%	0.07%	9.00%	0.44%
DXC Technology Co	DXC	0.03%	2.85%	0.09%	3.77%	0.11%
DaVita Inc	DVA	0.03%	n/a	n/a	18.24%	0.56%
Hartford Financial Services Group Inc/The	HIG	0.09%	1.98%	0.17%	9.50%	0.81%
Iron Mountain Inc	IRM	0.04%	7.55%	0.27%	3.81%	0.14%
Estee Lauder Cos Inc/The	EL	0.17%	0.86%	0.15%	11.15%	1.91%
Cadence Design Systems Inc	CDNS	0.07%	n/a	n/a	10.64%	0.77%
Universal Health Services Inc	UHS	0.05%	0.54%	0.03%	8.08%	0.38%
E*TRADE Financial Corp	ETFC	0.04%	1.28%	0.05%	6.07%	0.25%
Skyworks Solutions Inc	SWKS	0.05%	2.22%	0.12%	12.93%	0.68%
National Oilwell Varco Inc	NOV	0.03%	0.94%	0.03%	67.95%	2.16%
Quest Diagnostics Inc	DGX	0.06%	1.98%	0.11%	7.86%	0.44%
Activision Blizzard Inc	ATVI	0.16%	0.70%	0.11%	7.10%	1.12%
Rockwell Automation Inc	ROK	0.07%	2.35%	0.18%	11.50%	0.86%
Kraft Heinz Co/The	KHC	0.13%	5.73%	0.76%	-3.31%	-0.44%
American Tower Corp	AMT	0.38%	1.72%	0.65%	19.95%	7.59%
HollyFrontier Corp	HFC	0.03%	2.46%	0.08%	-0.31%	-0.01%
Regeneron Pharmaceuticals Inc	REGN	0.12%	n/a	n/a	12.58%	1.46%
Amazon.com Inc	AMZN	3.34%	n/a	n/a	44.33%	147.99%
Jack Henry & Associates Inc	JKHY	0.04%	1.10%	0.05%	9.20%	0.40%
Ralph Lauren Corp	RL	0.02%	2.88%	0.06%	6.35%	0.12%
Boston Properties Inc	BXP	0.08%	2.93%	0.23%	2.18%	0.17%
Amphenol Corp	APH	0.11%	1.04%	0.12%	8.67%	0.97%
Arconic Inc	ARNC	0.04%	0.31%	0.01%	10.90%	0.48%
Pioneer Natural Resources Co	PXD	0.08%	1.40%	0.11%	23.85%	1.95%
Valero Energy Corp	VLO	0.14%	4.22%	0.58%	9.75%	1.34%
Synopsys Inc	SNPS	0.08%	n/a	n/a	14.38%	1.15%
Western Union Co/The	WU	0.04%	3.45%	0.13%	3.61%	0.14%
CH Robinson Worldwide Inc	CHRW	0.04%	2.36%	0.11%	8.63%	0.39%
Accenture PLC	ACN	0.48%	1.66%	0.79%	10.03%	4.78%
TransDigm Group Inc	TDG	0.11%	n/a	n/a	14.40%	1.56%
Yum! Brands Inc	YUM	0.13%	1.48%	0.20%	12.50%	1.68%
Prologis Inc	PLD	0.21%	2.49%	0.52%	7.36%	1.54%
FirstEnergy Corp	FE	0.10%	3.15%	0.32%	0.49%	0.05%
VeriSign Inc	VRSN	0.09%	n/a	n/a	9.70%	0.84%
Quanta Services Inc	PWR	0.02%	0.42%	0.01%	n/a	n/a
Henry Schein Inc	HSIC	0.04%	n/a	n/a	1.27%	0.05%
Ameren Corp	AEE	0.08%	2.37%	0.19%	4.99%	0.39%
ANSYS Inc	ANSS	0.07%	n/a	n/a	11.50%	0.83%
NVIDIA Corp	NVDA	0.41%	0.37%	0.15%	11.15%	4.60%
Sealed Air Corp	SEE	0.02%	1.54%	0.04%	5.72%	0.14%
Cognizant Technology Solutions Corp	CTSH	0.13%	1.33%	0.17%	11.05%	1.43%
SVB Financial Group	SIVB	0.04%	n/a	n/a	11.00%	0.46%
Intuitive Surgical Inc	ISRG	0.24%	n/a	n/a	13.48%	3.26%
Affiliated Managers Group Inc	AMG	0.02%	1.54%	0.03%	5.86%	0.10%
Take-Two Interactive Software Inc	TTWO	0.06%	n/a	n/a	9.86%	0.54%
Republic Services Inc	RSG	0.11%	1.87%	0.20%	12.96%	1.40%
eBay Inc	EBAY	0.13%	1.44%	0.18%	12.07%	1.53%
Goldman Sachs Group Inc/The	GS	0.29%	2.41%	0.70%	0.64%	0.19%
Sempra Energy	SRE	0.16%	2.62%	0.41%	9.80%	1.54%
SBA Communications Corp	SBAC	0.11%	0.61%	0.07%	46.90%	4.97%
Moody's Corp	MCO	0.15%	0.98%	0.15%	11.70%	1.76%
Booking Holdings Inc	BKNG	0.32%	n/a	n/a	19.03%	6.17%
F5 Networks Inc	FFIV	0.03%	n/a	n/a	10.29%	0.34%
Akamai Technologies Inc	AKAM	0.06%	n/a	n/a	12.80%	0.75%

STANDARD AND POOR'S 500 INDEX

Name	Ticker	[12]	[13]	[14]	[15]	[16]
		Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
MarketAxess Holdings Inc	MKTX	0.05%	0.62%	0.03%	n/a	n/a
Devon Energy Corp	DVN	0.04%	1.50%	0.06%	6.63%	0.25%
Alphabet Inc	GOOGL	1.42%	n/a	n/a	12.87%	18.30%
Teleflex Inc	TFX	0.06%	0.40%	0.02%	14.25%	0.87%
Netflix Inc	NFLX	0.46%	n/a	n/a	42.80%	19.50%
Allegion PLC	ALLE	0.04%	1.04%	0.04%	10.23%	0.38%
Agilent Technologies Inc	A	0.09%	0.86%	0.08%	13.53%	1.25%
Anthem Inc	ANTM	0.24%	1.33%	0.32%	14.13%	3.37%
CME Group Inc	CME	0.29%	1.42%	0.42%	8.26%	2.43%
Juniper Networks Inc	JNPR	0.03%	3.07%	0.10%	7.74%	0.26%
BlackRock Inc	BLK	0.27%	2.96%	0.79%	8.82%	2.36%
DTE Energy Co	DTE	0.09%	2.84%	0.27%	5.53%	0.52%
Nasdaq Inc	NDAQ	0.06%	1.89%	0.12%	13.17%	0.84%
Celanese Corp	CE	0.06%	2.03%	0.12%	6.13%	0.36%
Philip Morris International Inc	PM	0.46%	6.16%	2.83%	7.81%	3.59%
salesforce.com Inc	CRM	0.51%	n/a	n/a	21.63%	10.95%
Huntington Ingalls Industries Inc	HII	0.03%	1.62%	0.06%	40.00%	1.36%
MetLife Inc	MET	0.17%	3.73%	0.64%	9.69%	1.66%
Under Armour Inc	UA	0.02%	n/a	n/a	27.23%	0.44%
Tapestry Inc	TPR	0.03%	5.18%	0.15%	8.83%	0.26%
CSX Corp	CSX	0.21%	1.39%	0.30%	12.17%	2.62%
Edwards Lifesciences Corp	EW	0.18%	n/a	n/a	14.75%	2.62%
Ameriprise Financial Inc	AMP	0.07%	2.64%	0.20%	3.20%	0.24%
TechnipFMC PLC	FTI	0.04%	2.15%	0.09%	23.04%	0.97%
Zimmer Biomet Holdings Inc	ZBH	0.11%	0.70%	0.08%	6.02%	0.66%
CBRE Group Inc	CBRE	0.07%	n/a	n/a	7.80%	0.54%
Mastercard Inc	MA	1.06%	0.49%	0.51%	17.14%	18.15%
CarMax Inc	KMX	0.06%	n/a	n/a	10.68%	0.60%
Intercontinental Exchange Inc	ICE	0.20%	1.19%	0.24%	8.59%	1.73%
Fidelity National Information Services Inc	FIS	0.32%	1.05%	0.33%	8.97%	2.84%
Chipotle Mexican Grill Inc	CMG	0.09%	n/a	n/a	21.87%	1.98%
Wynn Resorts Ltd	WYNN	0.05%	3.68%	0.17%	13.50%	0.61%
Assurant Inc	AIZ	0.03%	1.91%	0.06%	n/a	n/a
NRG Energy Inc	NRG	0.04%	0.30%	0.01%	35.23%	1.37%
Regions Financial Corp	RF	0.06%	3.92%	0.24%	8.21%	0.50%
Monster Beverage Corp	MNST	0.12%	n/a	n/a	14.30%	1.76%
Mosaic Co/The	MOS	0.03%	0.98%	0.03%	12.87%	0.40%
Expedia Group Inc	EXPE	0.07%	1.01%	0.07%	21.16%	1.56%
Evergy Inc	EVRG	0.06%	2.85%	0.17%	7.62%	0.46%
Discovery Inc	DISCA	0.02%	n/a	n/a	12.57%	0.21%
CF Industries Holdings Inc	CF	0.04%	2.44%	0.10%	19.80%	0.83%
Viacom Inc	VIAB	0.03%	3.33%	0.11%	3.36%	0.11%
Leidos Holdings Inc	LDOS	0.05%	1.58%	0.08%	10.00%	0.48%
Alphabet Inc	GOOG	1.65%	n/a	n/a	12.87%	21.18%
Cooper Cos Inc/The	COO	0.06%	0.02%	0.00%	6.82%	0.39%
TE Connectivity Ltd	TEL	0.12%	1.97%	0.24%	9.21%	1.12%
Discover Financial Services	DFS	0.10%	2.17%	0.22%	8.70%	0.87%
TripAdvisor Inc	TRIP	0.02%	n/a	n/a	14.28%	0.27%
Visa Inc	V	1.15%	0.58%	0.67%	15.59%	18.00%
Mid-America Apartment Communities Inc	MAA	0.06%	2.95%	0.17%	n/a	n/a
Xylem Inc/NY	XYL	0.06%	1.21%	0.07%	14.07%	0.78%
Marathon Petroleum Corp	MPC	0.16%	3.49%	0.54%	10.23%	1.59%
Tractor Supply Co	TSCO	0.04%	1.55%	0.06%	10.82%	0.45%
Advanced Micro Devices Inc	AMD	0.12%	n/a	n/a	20.03%	2.45%
ResMed Inc	RMD	0.08%	1.15%	0.09%	11.37%	0.86%
Mettler-Toledo International Inc	MTD	0.07%	n/a	n/a	13.47%	0.91%
Copart Inc	CPRT	0.07%	n/a	n/a	n/a	n/a
Albemarle Corp	ALB	0.03%	2.11%	0.06%	8.92%	0.26%
Fortinet Inc	FTNT	0.05%	n/a	n/a	16.50%	0.84%
Essex Property Trust Inc	ESS	0.08%	2.39%	0.20%	8.33%	0.70%
Realty Income Corp	O	0.09%	3.55%	0.34%	5.01%	0.47%
Seagate Technology PLC	STX	0.06%	4.68%	0.26%	1.26%	0.07%
Westrock Co	WRK	0.04%	4.99%	0.18%	1.80%	0.07%
IHS Markit Ltd	INFO	0.10%	n/a	n/a	12.73%	1.33%
Wabtec Corp	WAB	0.05%	0.67%	0.04%	76.00%	4.07%
Western Digital Corp	WDC	0.07%	3.35%	0.23%	3.07%	0.21%
PepsiCo Inc	PEP	0.75%	2.79%	2.08%	5.59%	4.16%
Diamondback Energy Inc	FANG	0.06%	0.83%	0.05%	17.36%	0.99%
Nektar Therapeutics	NKTR	0.01%	n/a	n/a	-8.60%	-0.11%
Maxim Integrated Products Inc	MXIM	0.06%	3.32%	0.20%	6.95%	0.42%
Church & Dwight Co Inc	CHD	0.07%	1.21%	0.09%	8.22%	0.59%
Duke Realty Corp	DRE	0.05%	2.53%	0.12%	4.74%	0.23%
Federal Realty Investment Trust	FRT	0.04%	3.09%	0.12%	5.71%	0.23%
MGM Resorts International	MGM	0.06%	1.88%	0.11%	13.81%	0.78%
JB Hunt Transport Services Inc	JBHT	0.05%	0.94%	0.04%	12.03%	0.55%
Lam Research Corp	LRGX	0.13%	1.99%	0.26%	16.30%	2.12%
Mohawk Industries Inc	MHK	0.03%	n/a	n/a	5.28%	0.18%
Pentair PLC	PNR	0.02%	1.90%	0.05%	6.57%	0.16%
Vertex Pharmaceuticals Inc	VRTX	0.17%	n/a	n/a	24.60%	4.16%
Ammcor PLC	AMCR	0.06%	4.92%	0.30%	6.55%	0.40%
Facebook Inc	FB	1.67%	n/a	n/a	19.37%	32.25%
T-Mobile US Inc	TMUS	0.26%	n/a	n/a	11.27%	2.95%

STANDARD AND POOR'S 500 INDEX

Name	Ticker	[12]	[13]	[14]	[15]	[16]
		Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
United Rentals Inc	URI	0.04%	n/a	n/a	12.00%	0.45%
ABIOMED Inc	ABMD	0.03%	n/a	n/a	24.00%	0.75%
Alexandria Real Estate Equities Inc	ARE	0.07%	2.60%	0.18%	4.77%	0.32%
Delta Air Lines Inc	DAL	0.15%	2.80%	0.41%	13.83%	2.01%
United Airlines Holdings Inc	UAL	0.09%	n/a	n/a	12.80%	1.13%
News Corp	NWS	0.01%	1.40%	0.02%	-14.23%	-0.16%
Centene Corp	CNC	0.07%	n/a	n/a	15.00%	1.04%
Macerich Co/The	MAC	0.02%	9.50%	0.16%	-0.31%	-0.01%
Martin Marietta Materials Inc	MLM	0.07%	0.80%	0.05%	15.99%	1.06%
PayPal Holdings Inc	PYPL	0.47%	n/a	n/a	19.58%	9.28%
Coty Inc	COTY	0.03%	4.76%	0.15%	7.03%	0.22%
DISH Network Corp	DISH	0.03%	n/a	n/a	-8.61%	-0.29%
Dow Inc	DOW	0.14%	5.88%	0.81%	14.41%	1.98%
Alexion Pharmaceuticals Inc	ALXN	0.09%	n/a	n/a	14.70%	1.25%
Everest Re Group Ltd	RE	0.04%	2.10%	0.09%	10.00%	0.42%
WellCare Health Plans Inc	WCG	0.05%	n/a	n/a	15.83%	0.80%
News Corp	NWSA	0.02%	1.44%	0.03%	-14.23%	-0.30%
Exelon Corp	EXC	0.18%	3.00%	0.55%	2.73%	0.50%
Global Payments Inc	GPX	0.19%	0.03%	0.00%	17.13%	3.18%
Crown Castle International Corp	CCI	0.22%	3.24%	0.73%	17.07%	3.83%
Aptiv PLC	APTIV	0.09%	1.01%	0.09%	6.00%	0.52%
Advance Auto Parts Inc	AAP	0.05%	0.15%	0.01%	15.31%	0.70%
Capri Holdings Ltd	CPRI	0.02%	n/a	n/a	5.52%	0.11%
Align Technology Inc	ALGN	0.06%	n/a	n/a	20.51%	1.15%
Illumina Inc	ILMN	0.17%	n/a	n/a	16.14%	2.81%
Alliance Data Systems Corp	ADS	0.03%	1.97%	0.05%	9.13%	0.23%
LKQ Corp	LKQ	0.04%	n/a	n/a	13.50%	0.51%
Nielsen Holdings PLC	NLSN	0.03%	6.59%	0.19%	12.00%	0.35%
Garmin Ltd	GRMN	0.06%	2.69%	0.17%	6.66%	0.42%
Cimarex Energy Co	XEC	0.02%	1.67%	0.03%	26.17%	0.49%
Zoetis Inc	ZTS	0.23%	0.53%	0.12%	10.23%	2.37%
Equinix Inc	EQIX	0.19%	1.71%	0.32%	19.24%	3.66%
Digital Realty Trust Inc	DLR	0.11%	3.33%	0.35%	17.20%	1.81%
Discovery Inc	DISCK	0.04%	n/a	n/a	12.57%	0.45%

Notes:

[6] Source: S&P Dow Jones Indices, S&P 500 Earnings and Estimate Report, September 30, 2019

[7] Source: S&P Dow Jones Indices, S&P 500 Earnings and Estimate Report, September 30, 2019

[8] Equals $([6] \times (1 + (0.5 \times [7]))) + [7]$

[9] Equals sum of Col. [14]

[10] Equals sum of Col. [16]

[11] Equals $([9] \times (1 + (0.5 \times [10]))) + [10]$

[12] Equals weight in S&P 500 based on market capitalization

[13] Source: Bloomberg Professional, as of September 30, 2019.

[14] Equals [12] x [13]

[15] Source: Bloomberg Professional, as of September 30, 2019.

[16] Equals [12] x [15]