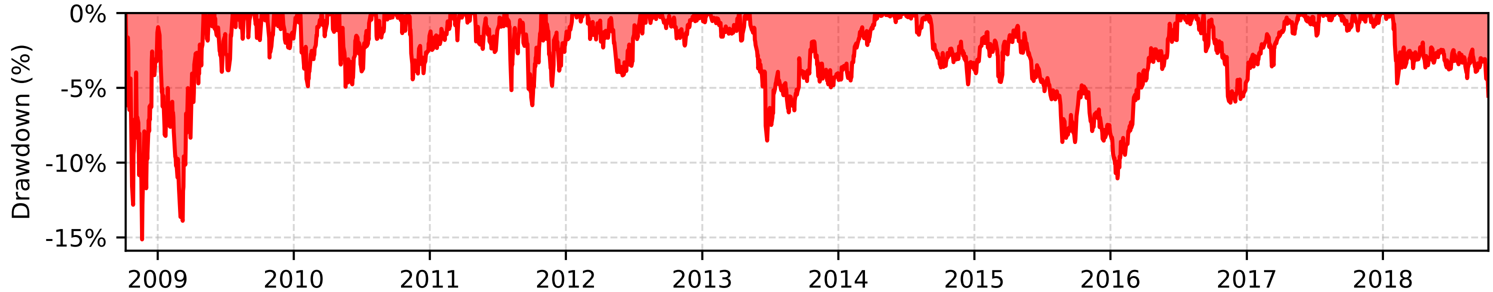
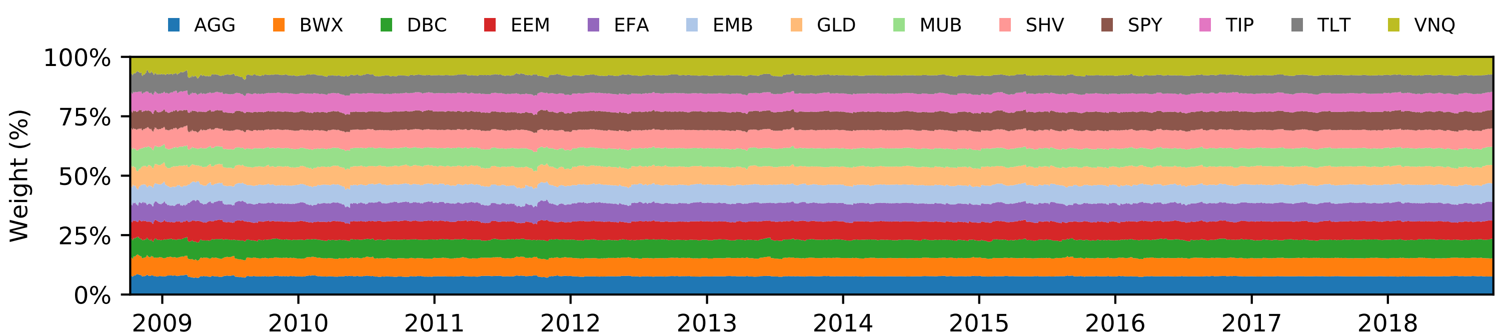
Tearsheet #1

Portfolio Tearsheet: Equal Weight





Overview

Portfolio Code:	EW
Start Date:	2008-10-07
End Date:	2018-10-11
Rebalanced:	Monthly
Trend Following:	N/A
Weighting:	EW

Statistics

Total Return:	60.65%
CAGR:	5.26%
Annual Volatility:	8.87%
Sharpe:	0.59
Max Drawdown:	-15.13%
Sortino:	0.86

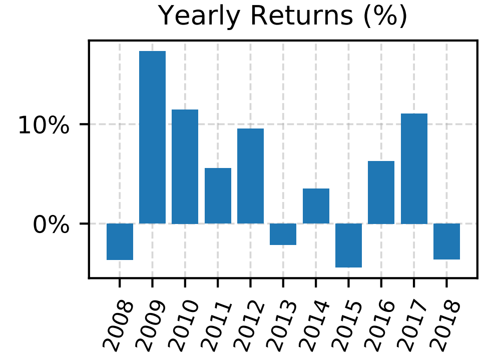
Statistics #2

$VaR_{99\%}$:	-1.63%
$CVaR_{99\%}$:	-2.32%
Placeholder:	N/A
Placeholder:	N/A
Placeholder:	N/A
Placeholder	N/A

Performance Attribution

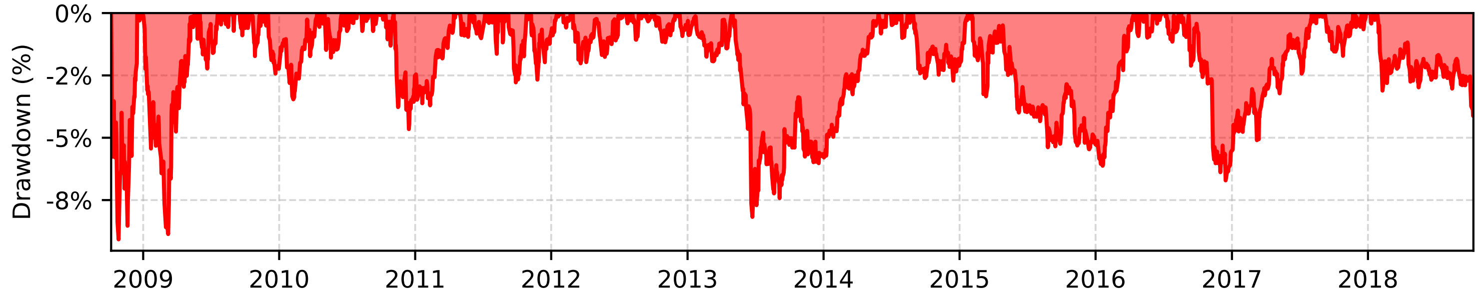
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AGG	0.5%	0.2%	0.5%	0.6%	0.3%	-0.2%	0.4%	0.0%	0.2%	0.3%	-0.2%
BWX	0.4%	0.4%	0.3%	0.3%	0.4%	-0.3%	-0.1%	-0.5%	0.1%	0.7%	-0.3%
DBC	-2.2%	1.4%	1.0%	-0.1%	0.3%	-0.6%	-2.4%	-2.3%	1.4%	0.4%	0.5%
EEM	-0.5%	4.8%	1.4%	-1.2%	1.5%	-0.1%	-0.2%	-1.2%	0.9%	2.5%	-1.3%
EFA	-0.5%	2.4%	0.8%	-0.8%	1.4%	1.6%	-0.5%	0.0%	0.1%	1.8%	-0.6%
EMB	0.5%	1.1%	0.8%	0.6%	1.2%	-0.6%	0.5%	0.1%	0.7%	0.8%	-0.5%
GLD	0.3%	1.8%	2.0%	0.9%	0.5%	-2.4%	-0.1%	-0.8%	0.7%	1.0%	-0.5%
MUB	0.3%	0.5%	0.0%	1.0%	0.4%	-0.3%	0.7%	0.2%	-0.0%	0.3%	-0.1%
SHV	0.0%	0.0%	0.0%	0.0%	0.0%	-0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
SPY	-0.9%	2.2%	1.2%	0.3%	1.2%	2.2%	1.0%	0.1%	0.9%	1.5%	0.3%
TIP	-0.2%	0.7%	0.4%	1.0%	0.5%	-0.7%	0.3%	-0.1%	0.4%	0.2%	-0.1%
TLT	1.6%	-1.8%	0.7%	2.4%	0.2%	-1.1%	1.9%	-0.1%	0.1%	0.7%	-0.6%
VNQ	-2.0%	3.2%	2.1%	0.9%	1.3%	0.4%	2.1%	0.3%	0.7%	0.4%	-0.3%

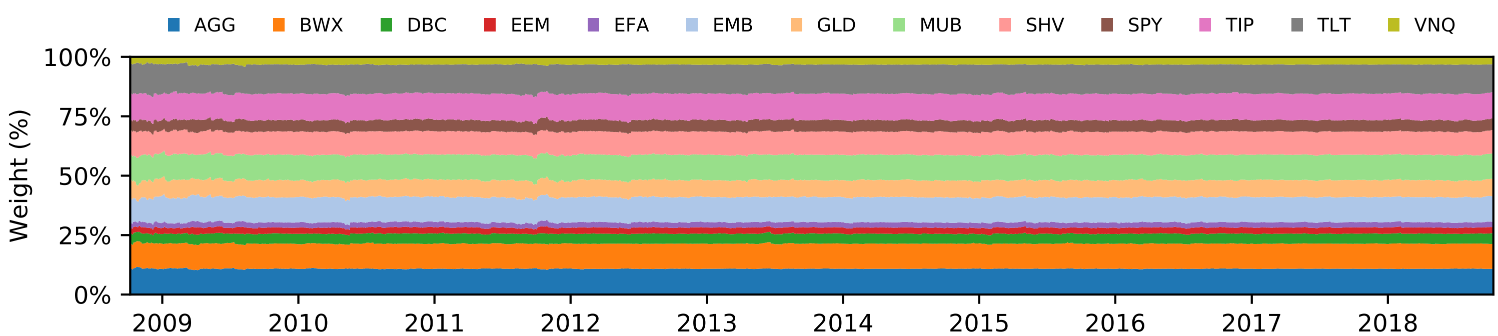
Yearly Returns (%)



Tearsheet #2

Portfolio Tearsheet: Risk Parity





Overview

Portfolio Code:	RP
Start Date:	2008-10-07
End Date:	2018-10-11
Rebalanced:	Monthly
Trend Following:	N/A
Weighting:	RP Static

Statistics

Total Return:	51.71%
CAGR:	4.41%
Annual Volatility:	5.42%
Sharpe:	0.81
Max Drawdown:	-9.08%
Sortino:	1.17

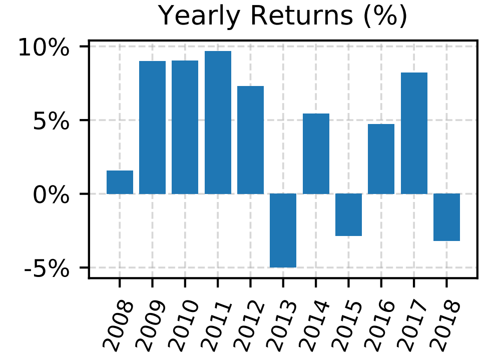
Statistics #2

$VaR_{99\%}$:	-0.92%
$CVaR_{99\%}$:	-1.31%
Placeholder:	N/A
Placeholder:	N/A
Placeholder:	N/A
Placeholder	N/A

Performance Attribution

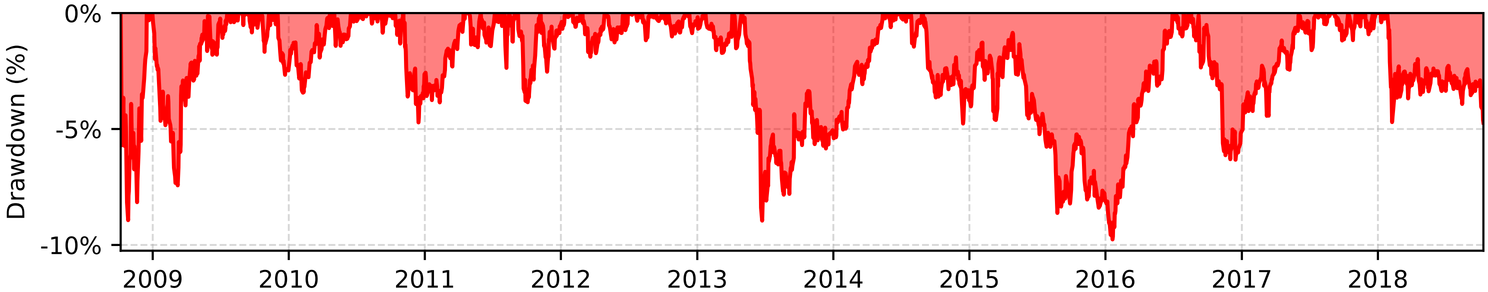
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AGG	0.7%	0.3%	0.7%	0.8%	0.4%	-0.2%	0.6%	0.0%	0.3%	0.4%	-0.2%
BWX	0.5%	0.6%	0.5%	0.4%	0.6%	-0.3%	-0.1%	-0.7%	0.1%	1.0%	-0.4%
DBC	-1.2%	0.8%	0.5%	-0.0%	0.2%	-0.3%	-1.3%	-1.3%	0.8%	0.2%	0.3%
EEM	-0.2%	1.6%	0.5%	-0.4%	0.5%	-0.0%	-0.1%	-0.4%	0.3%	0.8%	-0.4%
EFA	-0.2%	0.7%	0.2%	-0.2%	0.4%	0.5%	-0.1%	0.0%	0.0%	0.5%	-0.2%
EMB	0.7%	1.6%	1.1%	0.8%	1.6%	-0.8%	0.6%	0.1%	1.0%	1.0%	-0.6%
GLD	0.3%	1.6%	1.9%	0.8%	0.5%	-2.2%	-0.1%	-0.8%	0.6%	0.9%	-0.5%
MUB	0.3%	0.7%	0.0%	1.3%	0.5%	-0.4%	1.0%	0.3%	-0.0%	0.5%	-0.2%
SHV	0.1%	0.0%	0.0%	0.0%	0.0%	-0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
SPY	-0.6%	1.4%	0.7%	0.2%	0.7%	1.4%	0.6%	0.1%	0.6%	1.0%	0.2%
TIP	-0.3%	1.0%	0.7%	1.4%	0.7%	-1.0%	0.4%	-0.2%	0.5%	0.3%	-0.2%
TLT	2.6%	-2.8%	1.1%	3.9%	0.4%	-1.7%	3.0%	-0.1%	0.2%	1.1%	-0.9%
VNQ	-0.9%	1.4%	0.9%	0.4%	0.6%	0.2%	0.9%	0.1%	0.3%	0.2%	-0.2%

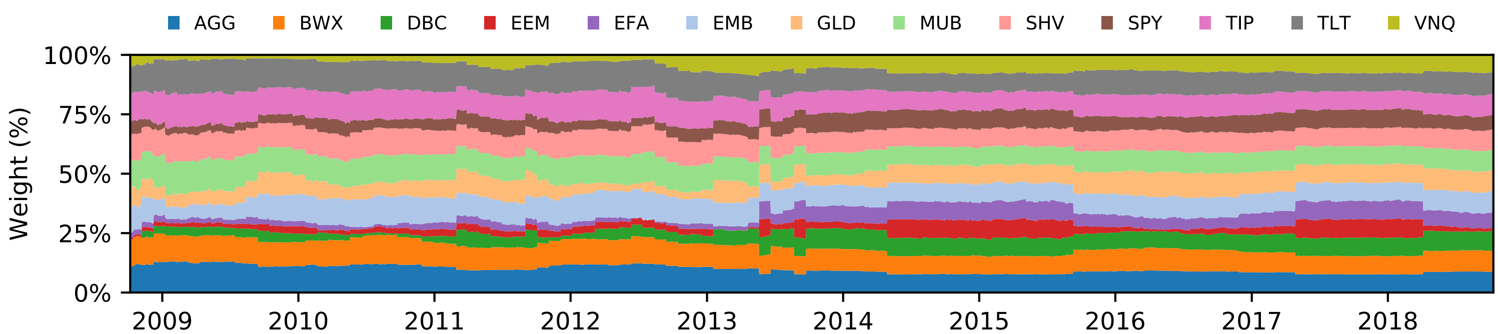
Yearly Returns (%)



Tearsheet #3

Portfolio Tearsheet: Dynamic Risk Parity





Overview

Portfolio Code:	RP
Start Date:	2008-10-07
End Date:	2018-10-11
Rebalanced:	Monthly
Trend Following:	N/A
Weighting:	RP 200

Statistics

Total Return:	44.46%
CAGR:	3.91%
Annual Volatility:	5.59%
Sharpe:	0.70
Max Drawdown:	-9.76%
Sortino:	1.00

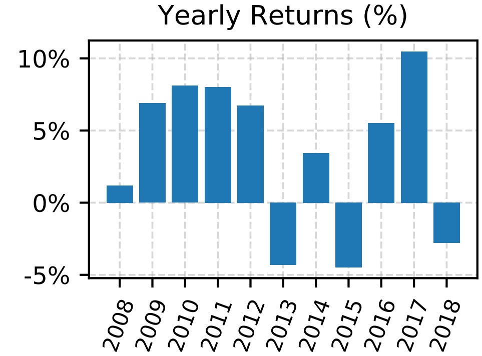
Statistics #2

$VaR_{99\%}$:	-0.99%
$CVaR_{99\%}$:	-1.36%
Placeholder:	N/A
Placeholder:	N/A
Placeholder:	N/A
Placeholder	N/A

Performance Attribution

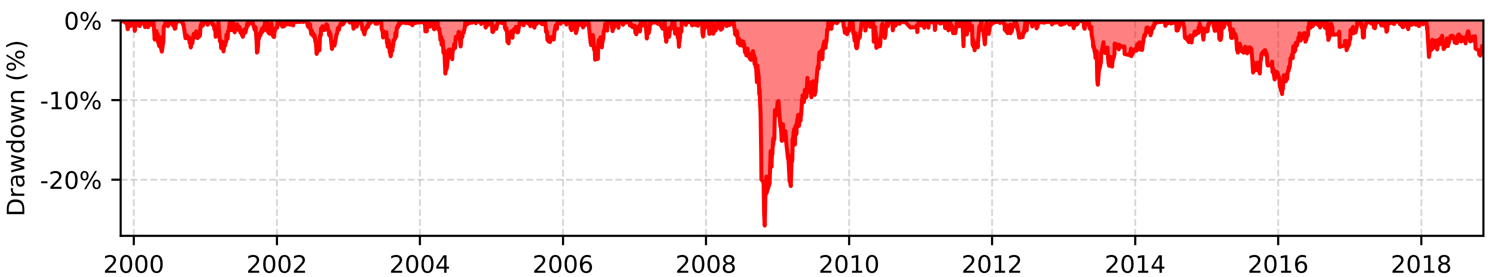
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AGG	0.9%	0.4%	0.7%	0.7%	0.4%	-0.2%	0.5%	0.0%	0.2%	0.3%	-0.2%
BWX	0.6%	0.6%	0.6%	0.4%	0.6%	-0.4%	-0.0%	-0.5%	0.1%	0.8%	-0.4%
DBC	-0.3%	0.7%	0.1%	-0.7%	-0.1%	-0.5%	-2.4%	-2.3%	1.3%	0.4%	0.6%
EEM	0.0%	1.2%	0.3%	-0.4%	0.5%	-0.3%	-0.2%	-1.1%	0.1%	1.9%	-0.2%
EFA	-0.2%	0.7%	0.1%	-0.2%	0.2%	0.6%	-0.5%	0.0%	0.1%	1.6%	-0.5%
EMB	-0.0%	1.1%	1.2%	0.8%	1.8%	-0.6%	0.5%	0.1%	0.8%	0.8%	-0.5%
GLD	-0.1%	1.8%	1.6%	1.2%	0.4%	-2.7%	-0.4%	-0.9%	0.8%	1.1%	-0.6%
MUB	0.5%	0.9%	0.0%	1.3%	0.6%	-0.2%	0.8%	0.3%	-0.0%	0.4%	-0.1%
SHV	0.1%	0.0%	0.0%	0.0%	0.0%	-0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
SPY	-0.8%	1.0%	0.6%	-0.0%	0.5%	1.8%	1.0%	0.0%	0.7%	1.5%	0.2%
TIP	-0.3%	1.1%	0.7%	1.3%	0.8%	-0.8%	0.3%	-0.1%	0.4%	0.2%	-0.1%
TLT	2.5%	-3.1%	1.2%	3.3%	0.4%	-1.4%	2.1%	-0.1%	0.2%	0.7%	-0.6%
VNQ	-1.5%	0.6%	0.7%	0.2%	0.5%	0.5%	1.9%	0.1%	0.6%	0.4%	-0.4%

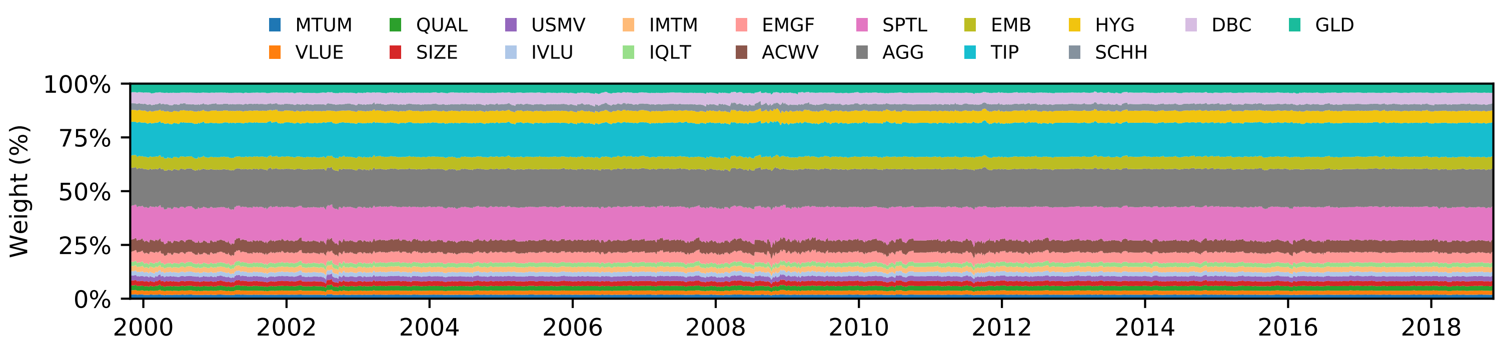
Yearly Returns (%)



Tearsheet #4

Portfolio Tearsheet: Static Risk Parity





Overview

Portfolio Code:	RP
Start Date:	1999-10-26
End Date:	2018-11-14
Rebalanced:	Monthly
Trend Following:	200 SMA
Weighting:	RP

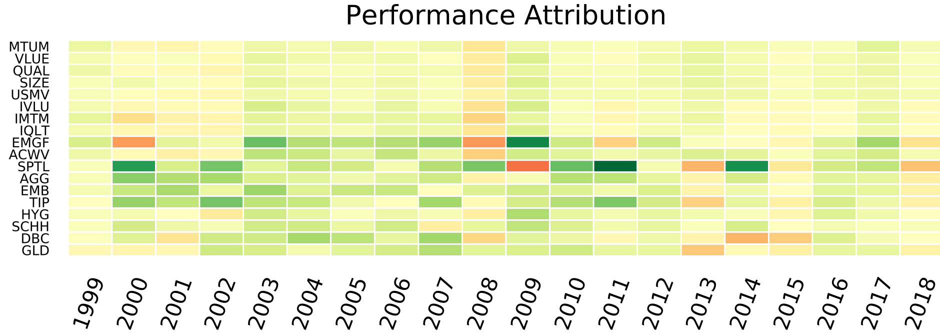
Statistics

Total Return:	270.57%
CAGR:	7.75%
Annual Volatility:	5.72%
Sharpe:	1.13
Max Drawdown:	-25.76%
Sortino:	1.64

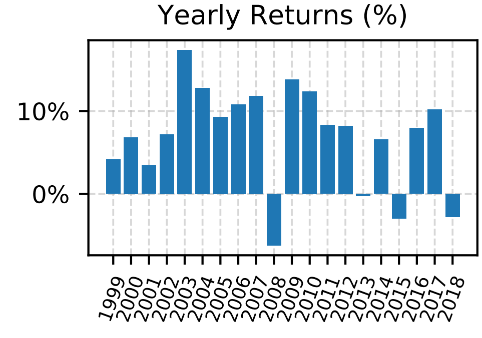
Statistics #2

$VaR_{99\%}$:	-0.92%
$CVaR_{99\%}$:	-1.44%
Beta:	0.18
Alpha:	6.08%
R-Squared:	35.62%
Treynor:	0.35

Performance Attribution

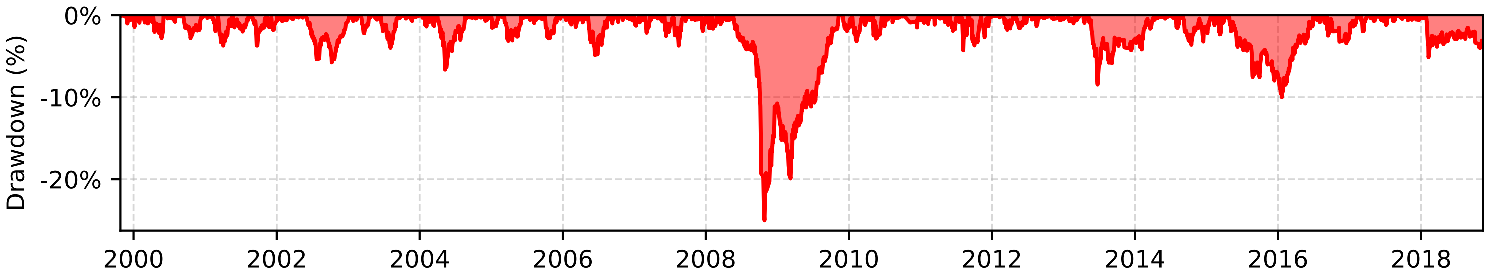


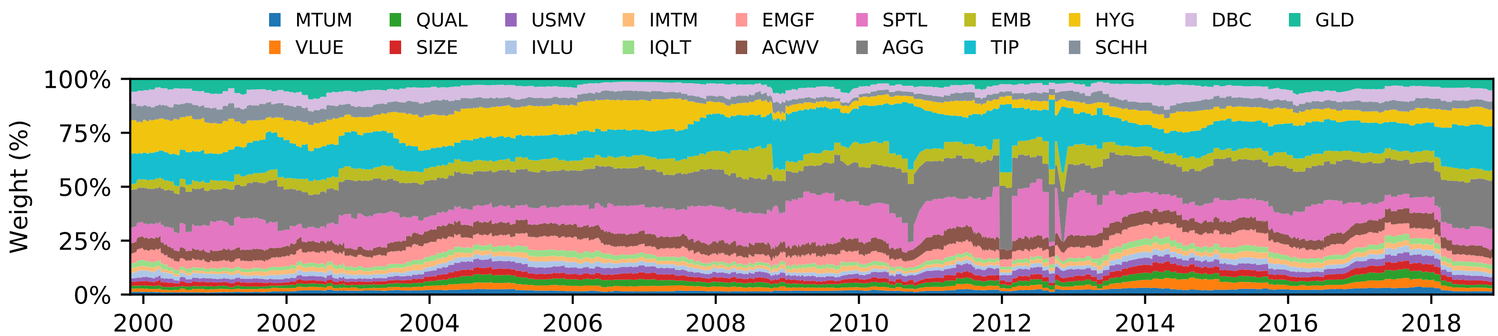
Yearly Returns (%)



Tearsheet #5

Portfolio Tearsheet: Dynamic Risk Parity



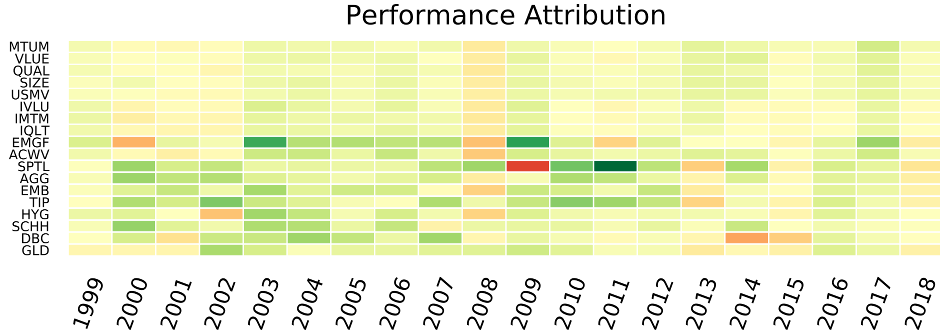


Overview	
Portfolio Code:	RP
Start Date:	1999-10-26
End Date:	2018-11-14
Rebalanced:	Monthly
Trend Following:	200 SMA
Weighting:	RP 200

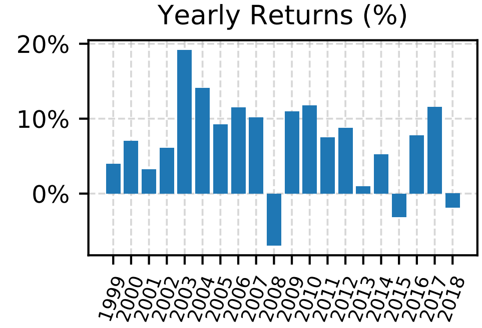
Statistics	
Total Return:	264.48%
CAGR:	7.64%
Annual Volatility:	5.51%
Sharpe:	1.16
Max Drawdown:	-25.01%
Sortino:	1.66

Statistics #2	
$VaR_{99\%}$:	-0.88%
$CVaR_{99\%}$:	-1.43%
Beta:	0.18
Alpha:	6.03%
R-Squared:	35.36%
Treynor:	0.36

Performance Attribution

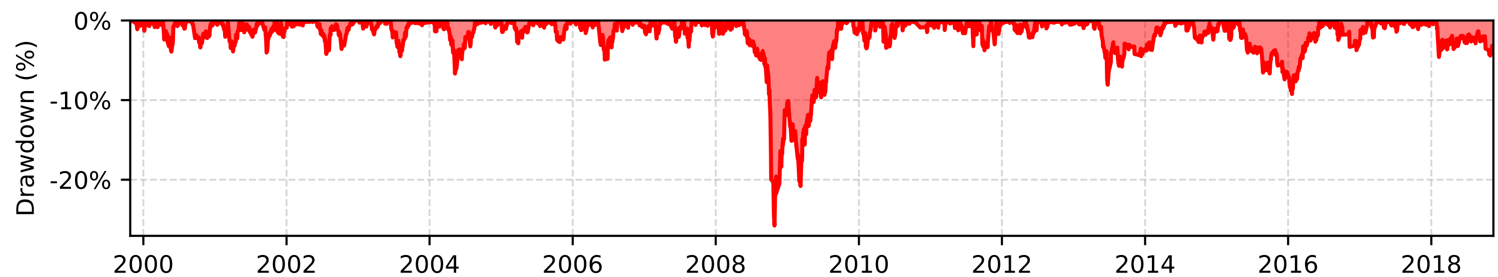


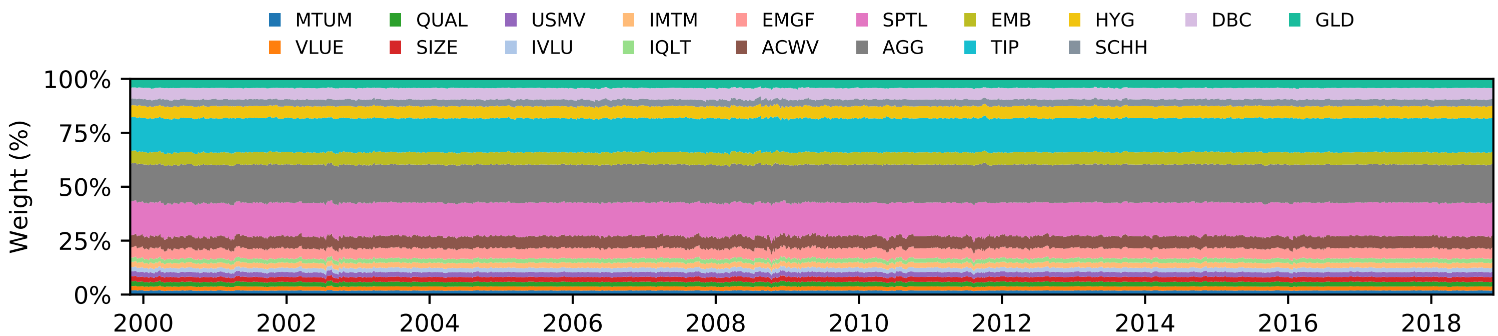
Yearly Returns (%)



Tearsheet #6

Portfolio Tearsheet: No Leverage



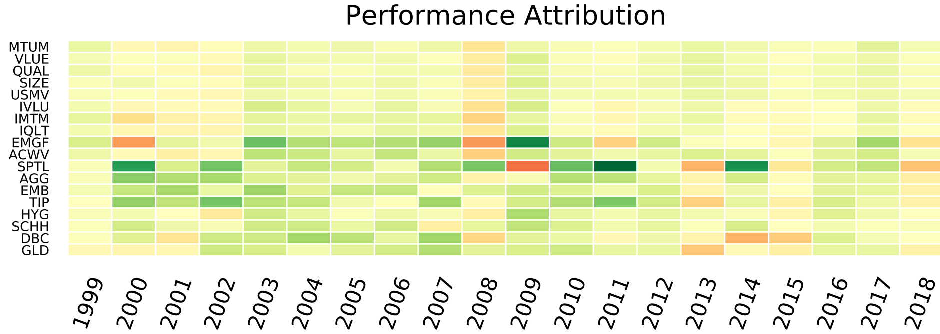


Overview	
Portfolio Code:	RP
Start Date:	1999-10-26
End Date:	2018-11-14
Rebalanced:	Monthly
Trend Following:	200 SMA
Weighting:	RP

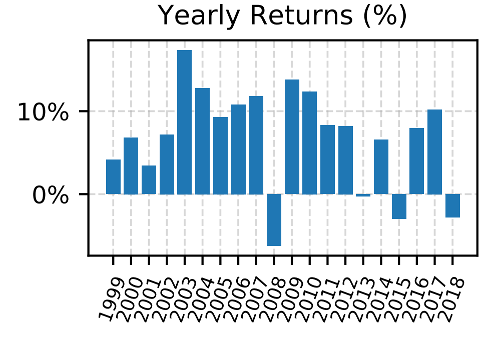
Statistics	
Total Return:	270.57%
CAGR:	7.75%
Annual Volatility:	5.72%
Sharpe:	1.13
Max Drawdown:	-25.76%
Sortino:	1.64

Statistics #2	
$VaR_{99\%}$:	-0.92%
$CVaR_{99\%}$:	-1.44%
Beta:	0.18
Alpha:	6.08%
R-Squared:	35.62%
Treynor:	0.35

Performance Attribution

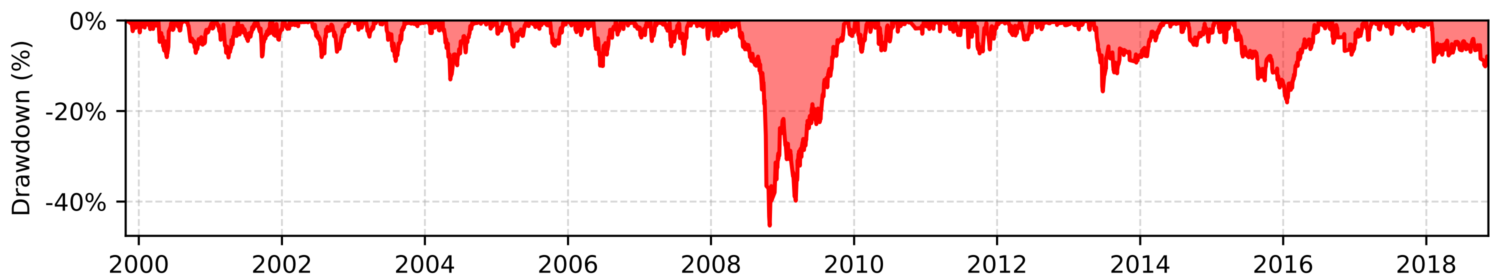


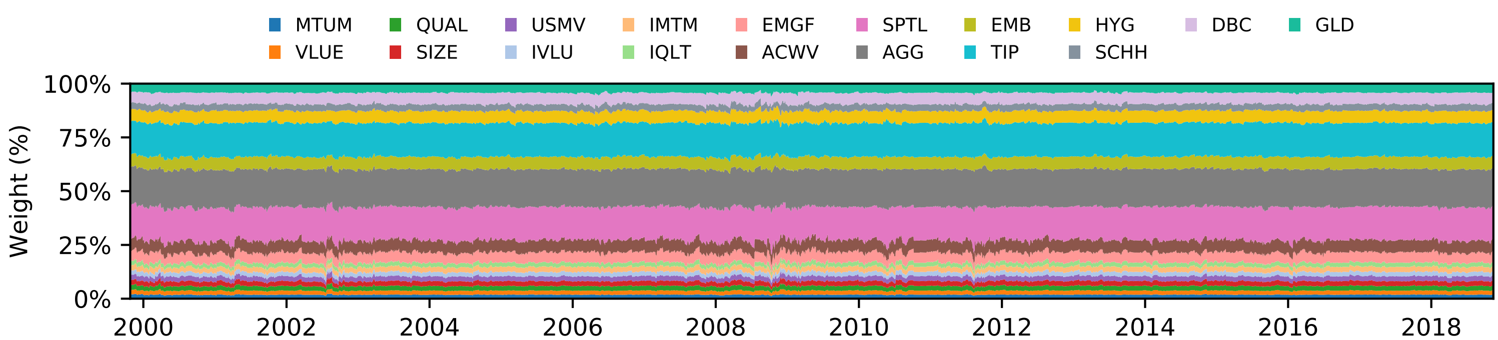
Yearly Returns (%)



Tearsheet #7

Portfolio Tearsheet: 2x Leverage



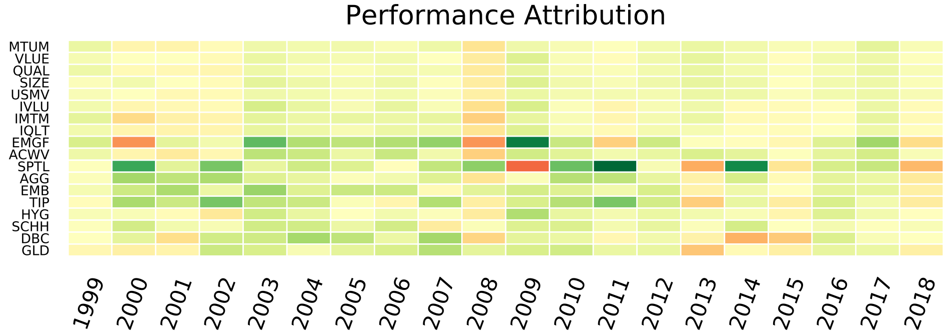


Overview	
Portfolio Code:	RP
Start Date:	1999-10-26
End Date:	2018-11-14
Rebalanced:	Monthly
Trend Following:	200 SMA
Weighting:	RP

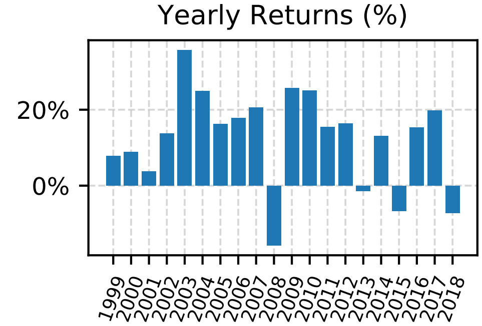
Statistics	
Total Return:	817.76%
CAGR:	13.89%
Annual Volatility:	11.40%
Sharpe:	1.10
Max Drawdown:	-45.30%
Sortino:	1.58

Statistics #2	
$VaR_{99\%}$:	-1.83%
$CVaR_{99\%}$:	-2.88%
Beta:	0.36
Alpha:	10.44%
R-Squared:	34.83%
Treynor:	0.35

Performance Attribution

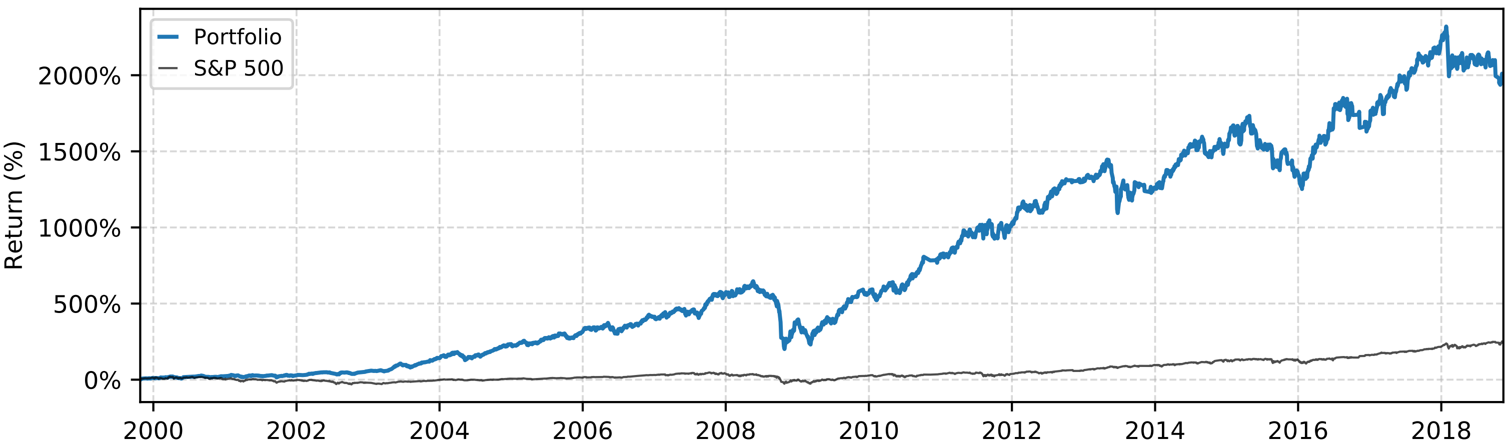


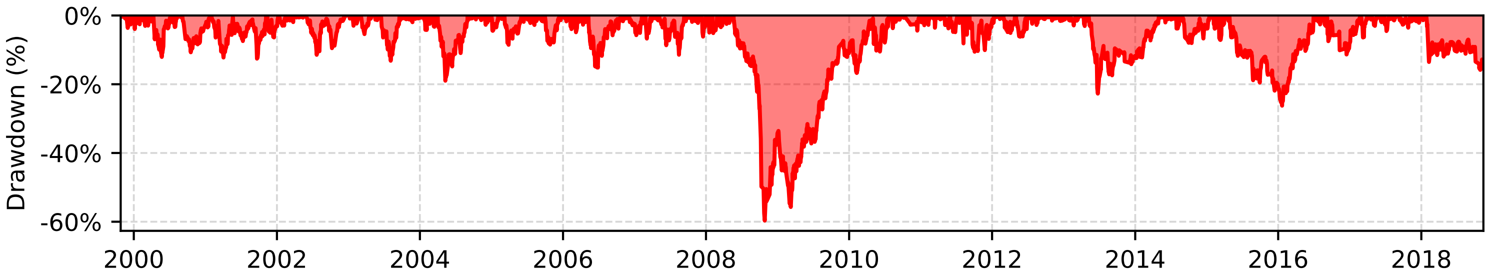
Yearly Returns (%)

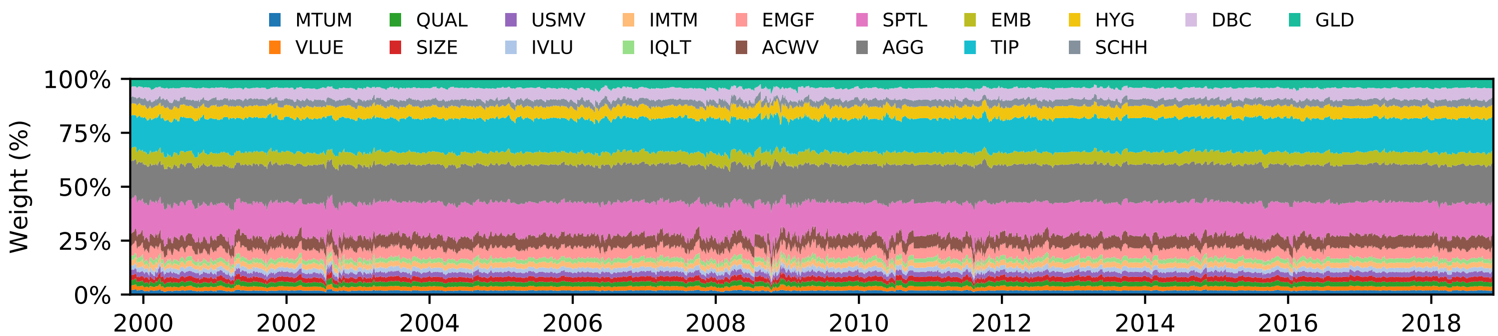


Tearsheet #8

Portfolio Tearsheet: 3x Leverage







Overview

Portfolio Code:	RP
Start Date:	1999-10-26
End Date:	2018-11-14
Rebalanced:	Monthly
Trend Following:	200 SMA
Weighting:	RP

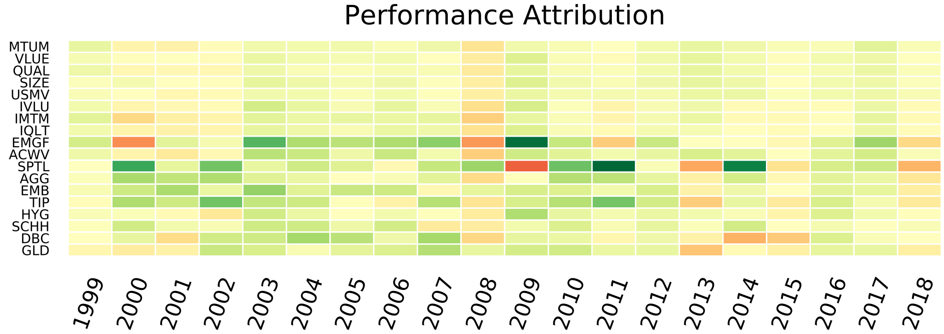
Statistics

Total Return:	1950.95%
CAGR:	20.07%
Annual Volatility:	17.03%
Sharpe:	1.10
Max Drawdown:	-59.67%
Sortino:	1.56

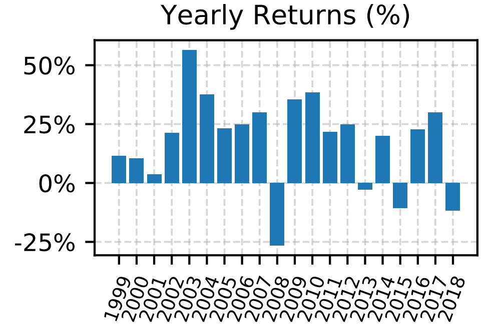
Statistics #2

$VaR_{99\%}$:	-2.71%
$CVaR_{99\%}$:	-4.29%
Beta:	0.53
Alpha:	14.75%
R-Squared:	33.84%
Treynor:	0.35

Performance Attribution

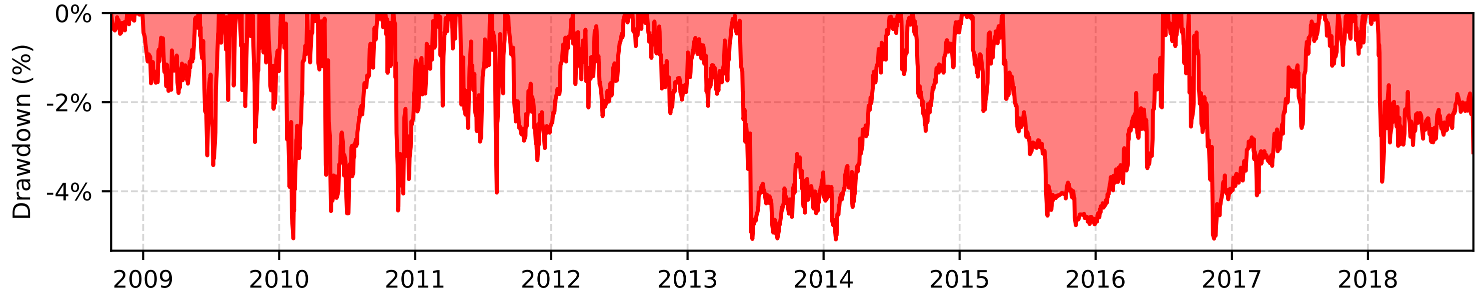


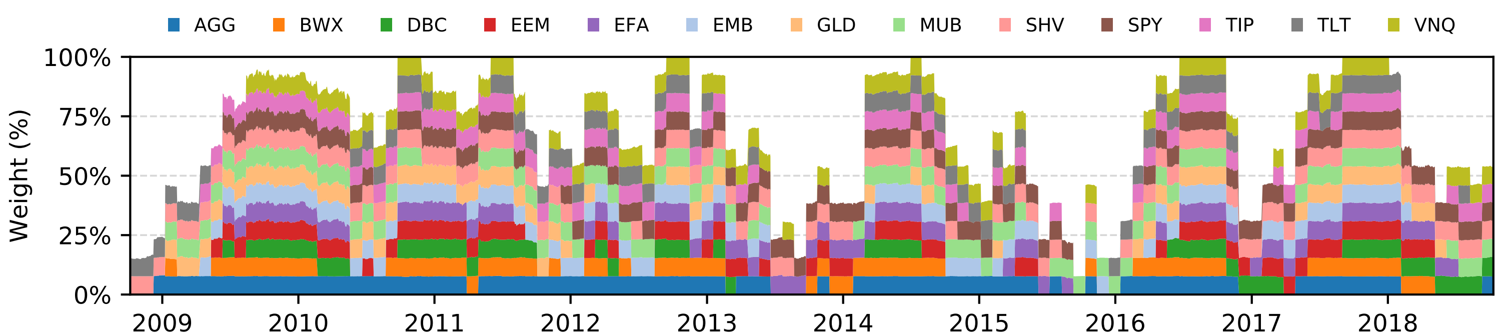
Yearly Returns (%)



Tearsheet #9

Portfolio Tearsheet: Trend Following Equal Weight





Overview

Portfolio Code:	EW_TF
Start Date:	2008-10-07
End Date:	2018-10-11
Rebalanced:	Monthly
Trend Following:	200 SMA
Weighting:	EW

Statistics

Total Return:	39.31%
CAGR:	3.49%
Annual Volatility:	4.80%
Sharpe:	0.73
Max Drawdown:	-5.08%
Sortino:	1.02

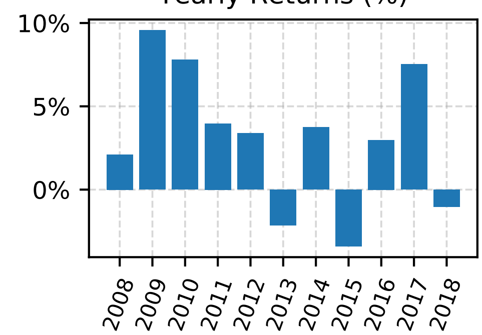
Statistics #2

$VaR_{99\%}$:	-0.98%
$CVaR_{99\%}$:	-1.21%
Placeholder:	N/A
Placeholder:	N/A
Placeholder:	N/A
Placeholder	N/A

Performance Attribution

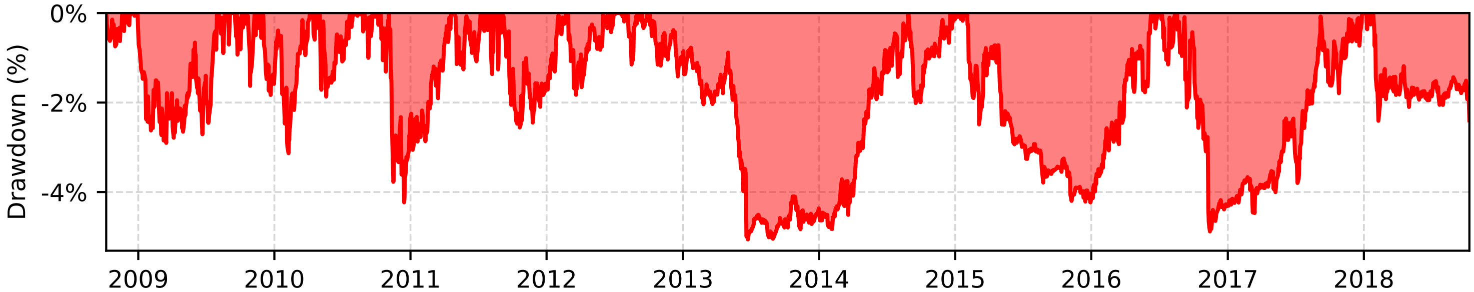
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AGG	0.4%	0.2%	0.5%	0.5%	0.3%	-0.3%	0.4%	-0.1%	0.1%	0.1%	-0.2%
BWX	0.0%	0.2%	0.1%	0.1%	-0.0%	-0.2%	0.1%	-0.3%	0.3%	0.3%	0.0%
DBC	0.0%	-0.6%	0.3%	-0.4%	-0.6%	-0.2%	-0.2%	0.0%	0.7%	0.3%	0.5%
EEM	0.0%	2.6%	0.6%	-0.7%	-0.4%	-1.6%	-0.5%	-0.3%	-0.2%	2.0%	-0.1%
EFA	0.0%	1.3%	-0.1%	0.2%	0.5%	1.6%	-0.3%	-1.0%	-0.2%	1.8%	-0.1%
EMB	0.0%	1.5%	0.8%	-0.0%	1.2%	-1.0%	0.3%	-0.2%	0.3%	0.6%	-0.2%
GLD	0.0%	1.9%	2.0%	0.9%	-0.4%	-0.3%	-0.6%	-0.4%	0.4%	0.2%	-0.0%
MUB	0.0%	0.4%	0.2%	0.7%	0.4%	-0.5%	0.5%	0.2%	0.2%	0.2%	-0.2%
SHV	0.0%	0.0%	0.0%	0.0%	0.0%	-0.0%	0.0%	-0.0%	0.0%	0.1%	0.1%
SPY	0.0%	1.4%	0.7%	-0.2%	0.7%	2.2%	1.0%	-0.3%	0.9%	1.5%	0.3%
TIP	0.0%	0.5%	0.5%	1.0%	0.5%	-0.2%	0.1%	-0.3%	0.2%	0.1%	-0.2%
TLT	1.6%	-1.5%	0.0%	2.1%	0.2%	-0.5%	1.4%	-0.3%	0.2%	0.3%	-0.5%
VNQ	0.0%	1.3%	2.0%	0.1%	1.0%	-1.1%	1.5%	-0.4%	0.1%	-0.2%	-0.4%

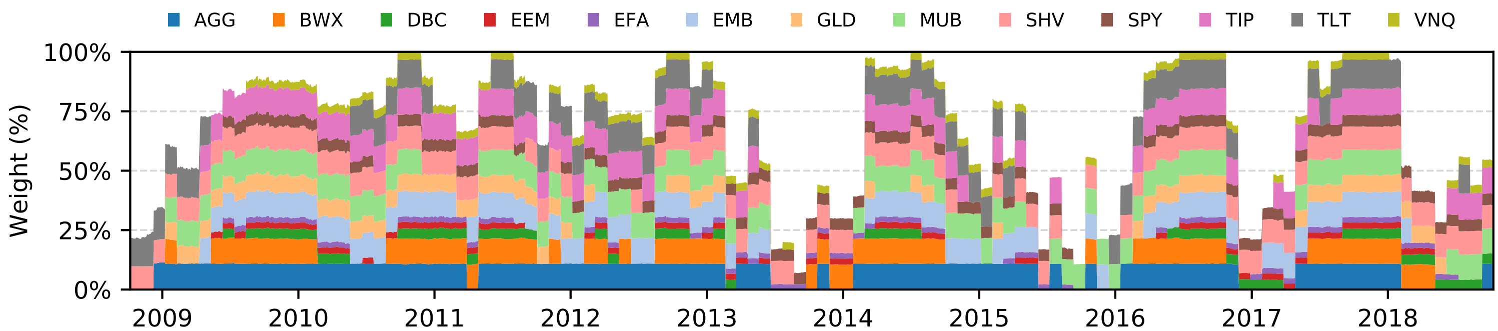
Yearly Returns (%)



Tearsheet #10

Portfolio Tearsheet: Risk Parity Trend Following





Overview

Portfolio Code:	RP
Start Date:	2008-10-07
End Date:	2018-10-11
Rebalanced:	Monthly
Trend Following:	200 SMA
Weighting:	RP Static

Statistics

Total Return:	35.56%
CAGR:	3.15%
Annual Volatility:	3.42%
Sharpe:	0.92
Max Drawdown:	-5.06%
Sortino:	1.32

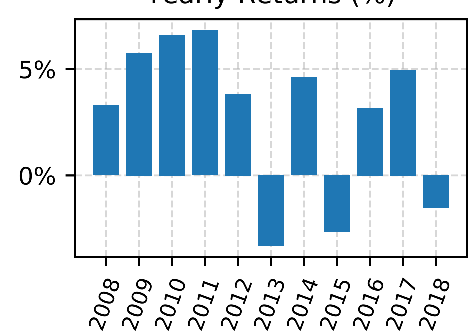
Statistics #2

$VaR_{99\%}$:	-0.64%
$CVaR_{99\%}$:	-0.82%
Placeholder:	N/A
Placeholder:	N/A
Placeholder:	N/A
Placeholder	N/A

Performance Attribution

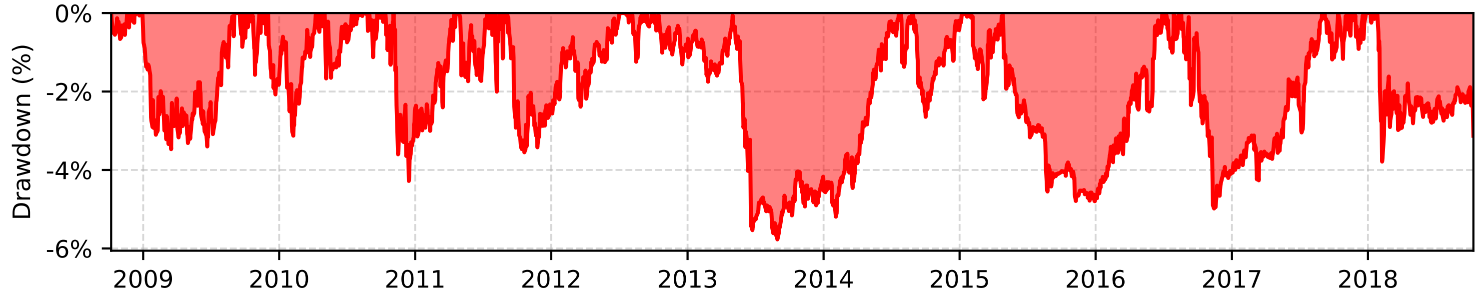
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AGG	0.6%	0.3%	0.7%	0.7%	0.4%	-0.4%	0.5%	-0.1%	0.2%	0.2%	-0.3%
BWX	0.0%	0.3%	0.2%	0.1%	-0.0%	-0.2%	0.2%	-0.4%	0.4%	0.4%	0.0%
DBC	0.0%	-0.3%	0.2%	-0.2%	-0.3%	-0.1%	-0.1%	0.0%	0.4%	0.2%	0.3%
EEM	0.0%	0.9%	0.2%	-0.2%	-0.1%	-0.6%	-0.2%	-0.1%	-0.1%	0.7%	-0.0%
EFA	0.0%	0.4%	-0.0%	0.0%	0.2%	0.5%	-0.1%	-0.3%	-0.0%	0.5%	-0.0%
EMB	0.0%	2.1%	1.1%	-0.1%	1.7%	-1.4%	0.4%	-0.3%	0.4%	0.9%	-0.3%
GLD	0.0%	1.8%	1.9%	0.9%	-0.3%	-0.3%	-0.6%	-0.4%	0.4%	0.2%	-0.0%
MUB	0.0%	0.6%	0.3%	1.0%	0.5%	-0.7%	0.7%	0.3%	0.2%	0.3%	-0.3%
SHV	0.1%	0.0%	0.0%	0.0%	0.0%	-0.0%	0.0%	-0.0%	0.0%	0.1%	0.1%
SPY	0.0%	0.9%	0.5%	-0.1%	0.5%	1.4%	0.6%	-0.2%	0.6%	1.0%	0.2%
TIP	0.0%	0.7%	0.7%	1.4%	0.7%	-0.3%	0.2%	-0.5%	0.3%	0.1%	-0.3%
TLT	2.6%	-2.4%	0.0%	3.3%	0.3%	-0.8%	2.2%	-0.5%	0.4%	0.5%	-0.8%
VNQ	0.0%	0.6%	0.9%	0.0%	0.4%	-0.5%	0.6%	-0.2%	0.0%	-0.1%	-0.2%

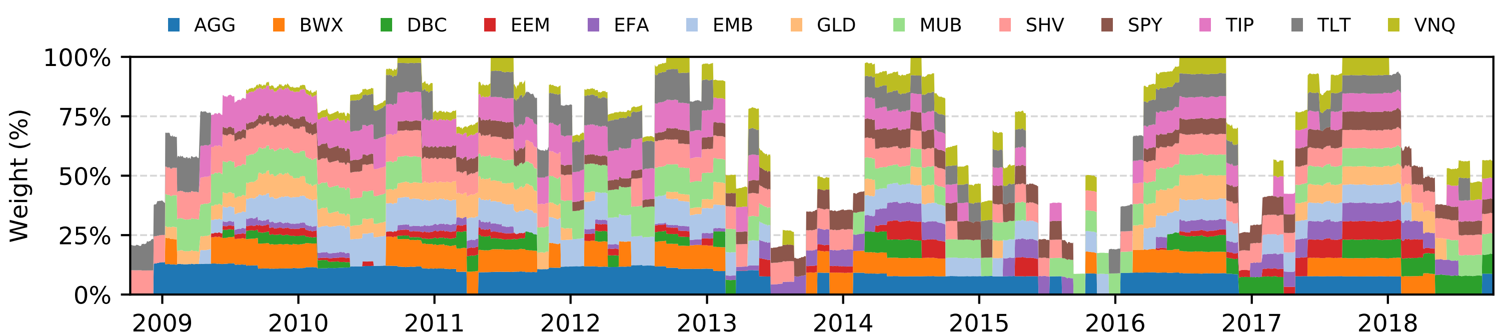
Yearly Returns (%)



Tearsheet #11

Portfolio Tearsheet: Dynamic Risk Parity Trend Following





Overview

Portfolio Code:	RP_TF
Start Date:	2008-10-07
End Date:	2018-10-11
Rebalanced:	Monthly
Trend Following:	200 SMA
Weighting:	RP 200

Statistics

Total Return:	33.91%
CAGR:	3.03%
Annual Volatility:	3.71%
Sharpe:	0.82
Max Drawdown:	-5.77%
Sortino:	1.15

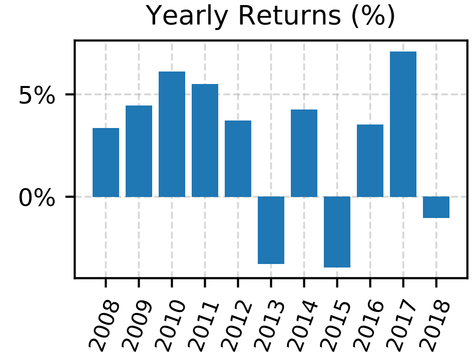
Statistics #2

$VaR_{99\%}$:	-0.71%
$CVaR_{99\%}$:	-0.90%
Placeholder:	N/A
Placeholder:	N/A
Placeholder:	N/A
Placeholder	N/A

Performance Attribution

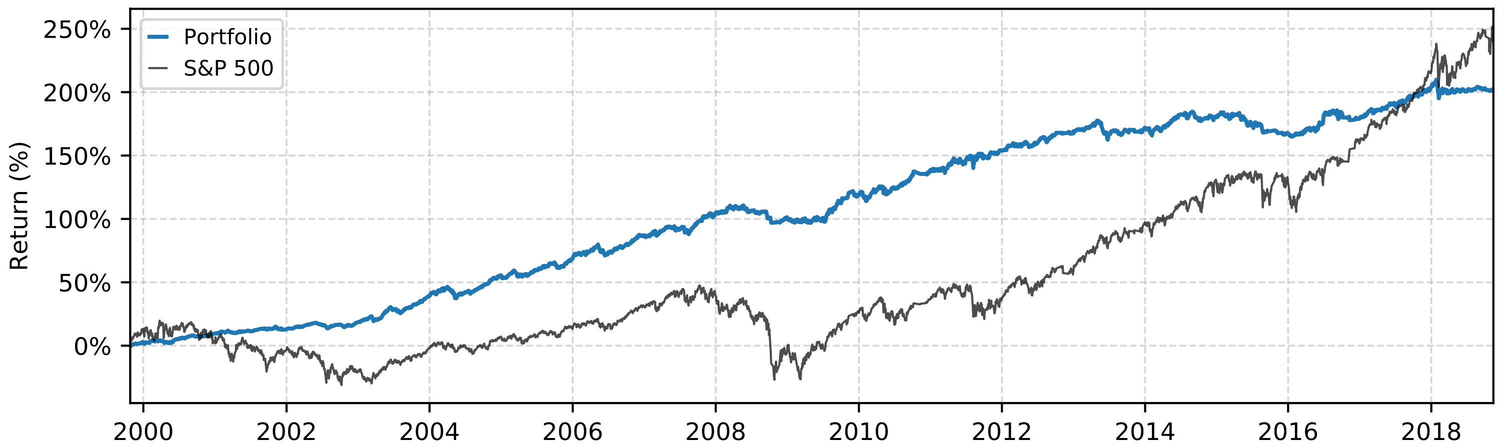
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AGG	0.7%	0.4%	0.7%	0.6%	0.4%	-0.3%	0.4%	-0.1%	0.1%	0.1%	-0.2%
BWX	0.0%	0.4%	0.2%	0.1%	-0.0%	-0.2%	0.2%	-0.3%	0.4%	0.3%	-0.0%
DBC	0.0%	-0.2%	-0.0%	-0.8%	-0.4%	-0.2%	-0.2%	0.0%	0.6%	0.3%	0.6%
EEM	0.0%	0.7%	0.1%	-0.2%	-0.1%	-1.2%	-0.1%	-0.3%	-0.0%	1.7%	0.1%
EFA	0.0%	0.4%	-0.0%	0.0%	0.1%	0.6%	-0.3%	-1.0%	-0.1%	1.6%	-0.1%
EMB	0.0%	1.4%	1.2%	-0.1%	1.8%	-1.1%	0.3%	-0.3%	0.4%	0.7%	-0.2%
GLD	0.0%	1.9%	1.6%	1.2%	-0.1%	-0.4%	-0.6%	-0.4%	0.5%	0.2%	-0.1%
MUB	0.0%	0.7%	0.3%	0.9%	0.6%	-0.5%	0.6%	0.2%	0.2%	0.2%	-0.2%
SHV	0.1%	0.0%	0.0%	0.0%	0.0%	-0.0%	-0.0%	-0.0%	0.0%	0.1%	0.1%
SPY	0.0%	0.6%	0.4%	-0.3%	0.2%	1.8%	1.0%	-0.3%	0.8%	1.5%	0.2%
TIP	0.0%	0.7%	0.7%	1.3%	0.8%	-0.3%	0.1%	-0.3%	0.3%	0.1%	-0.2%
TLT	2.6%	-2.8%	0.0%	2.9%	0.3%	-0.7%	1.4%	-0.3%	0.3%	0.3%	-0.5%
VNQ	0.0%	0.3%	0.7%	-0.1%	0.1%	-0.8%	1.4%	-0.3%	-0.0%	-0.1%	-0.4%

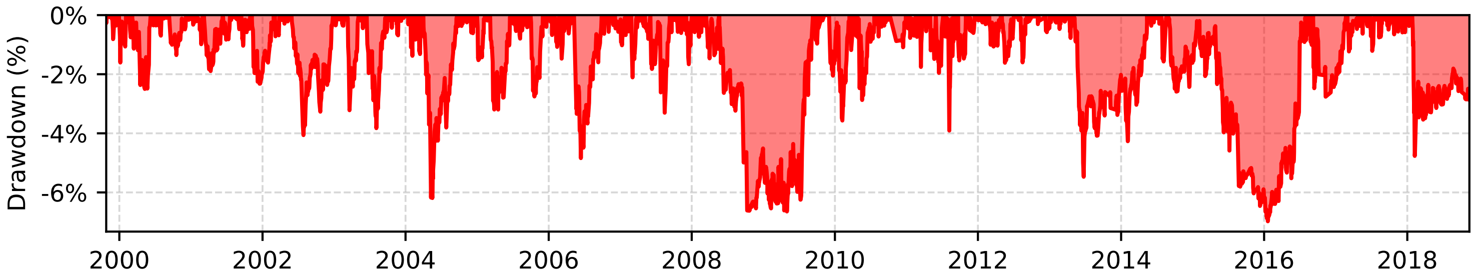
Yearly Returns (%)

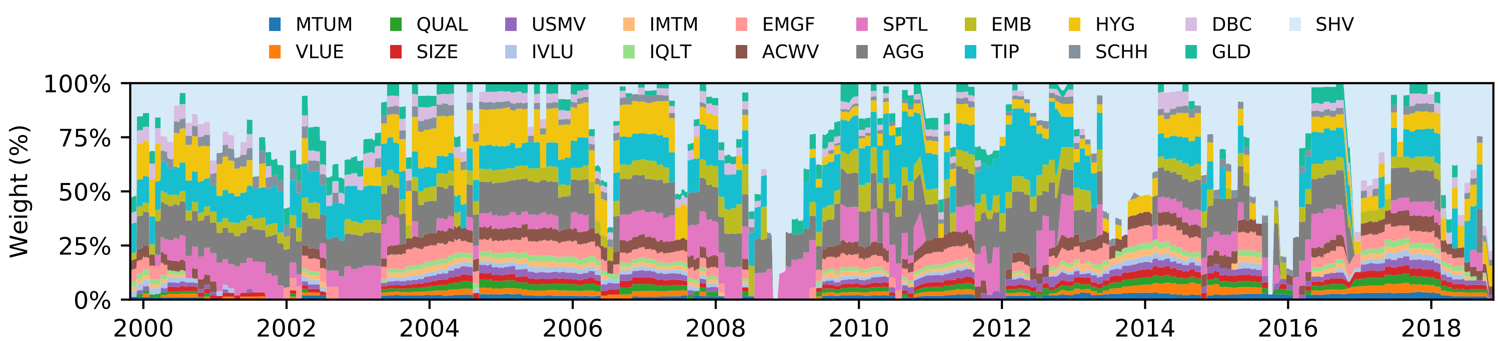


Tearsheet #12

Portfolio Tearsheet: Transaction Costs Trend-Following





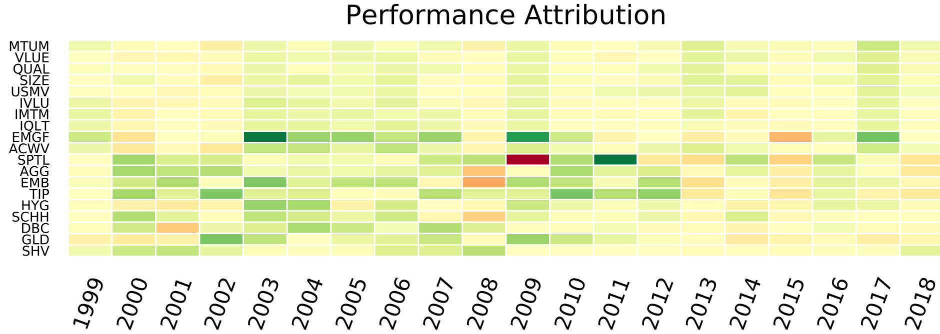


Overview	
Portfolio Code:	RP
Start Date:	1999-10-26
End Date:	2018-11-14
Rebalanced:	Monthly
Trend Following:	200 SMA
Weighting:	RP 200

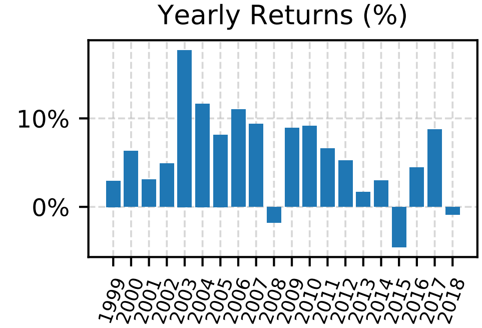
Statistics	
Total Return:	201.03%
CAGR:	6.42%
Annual Volatility:	3.98%
Sharpe:	1.30
Max Drawdown:	-6.98%
Sortino:	1.88

Statistics #2	
$VaR_{99\%}$:	-0.68%
$CVaR_{99\%}$:	-0.91%
Beta:	0.06
Alpha:	5.87%
R-Squared:	7.95%
Treynor:	0.86

Performance Attribution

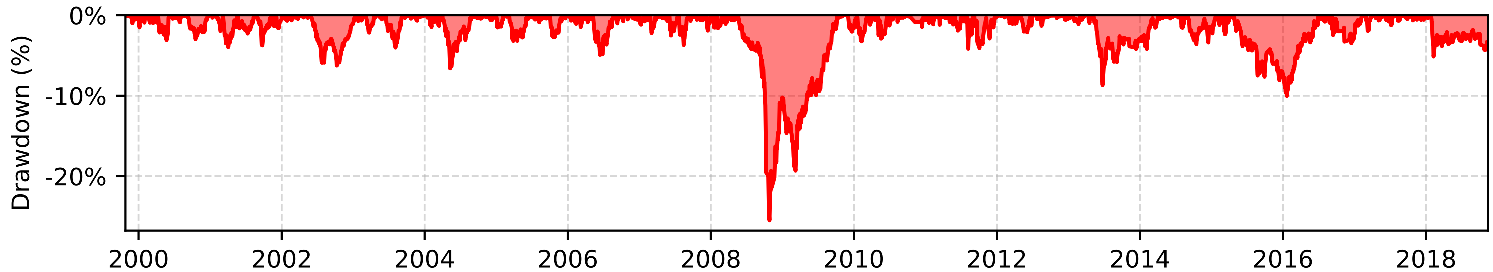


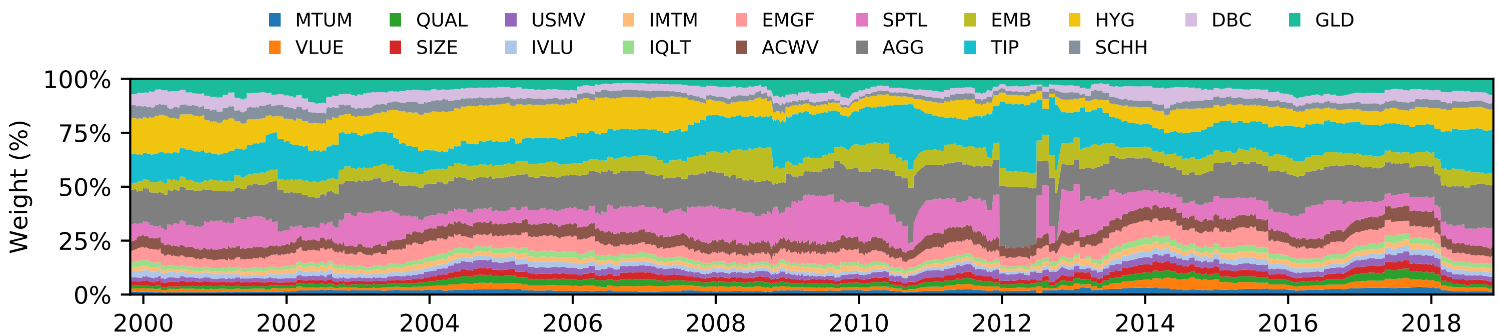
Yearly Returns (%)



Tearsheet #13

Portfolio Tearsheet: Transaction Costs No-Trend





Overview

Portfolio Code:	RP
Start Date:	1999-10-26
End Date:	2018-11-14
Rebalanced:	Monthly
Trend Following:	N/A
Weighting:	RP 200

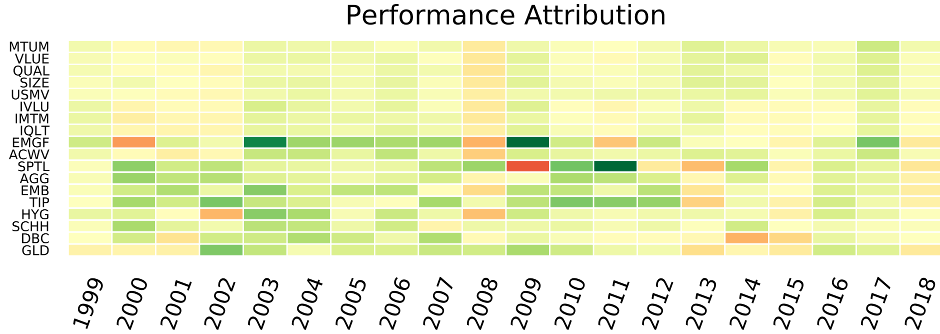
Statistics

Total Return:	277.78%
CAGR:	7.86%
Annual Volatility:	5.55%
Sharpe:	1.19
Max Drawdown:	-25.49%
Sortino:	1.71

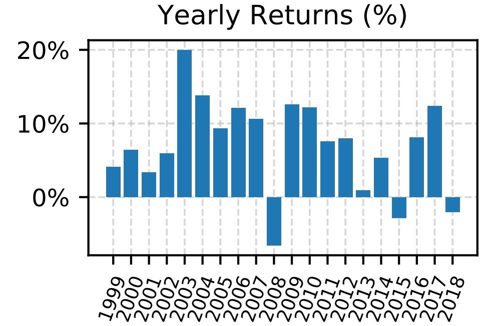
Statistics #2

$VaR_{99\%}$:	-0.90%
$CVaR_{99\%}$:	-1.44%
Beta:	0.18
Alpha:	6.24%
R-Squared:	35.43%
Treynor:	0.37

Performance Attribution

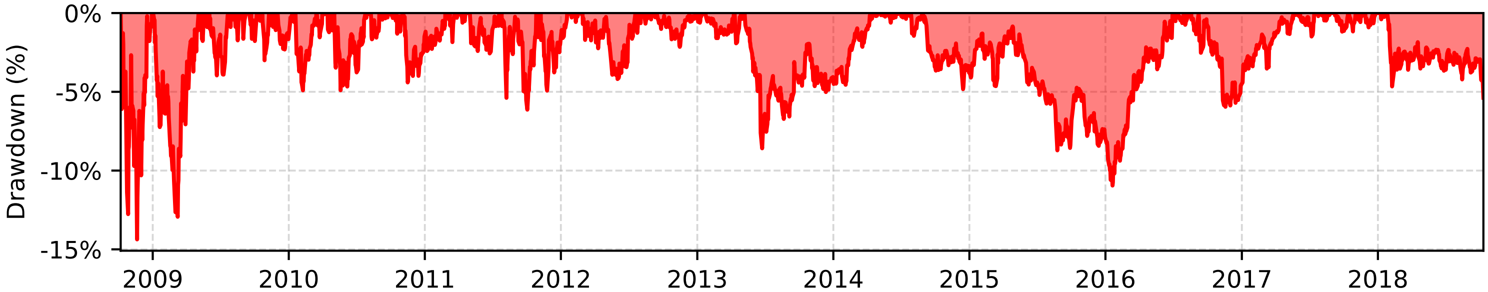


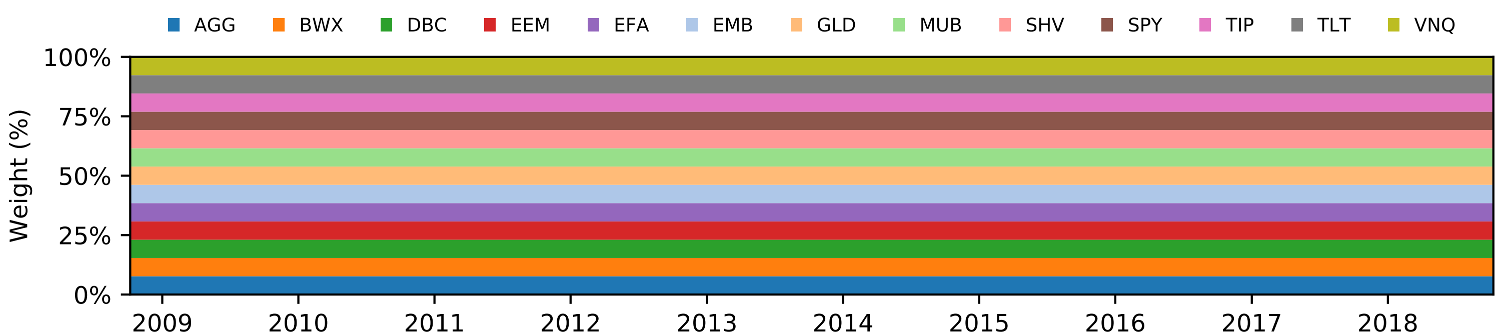
Yearly Returns (%)



Tearsheet #14

Portfolio Tearsheet: Equal Weight





Overview

Portfolio Code:	EW
Start Date:	2008-10-07
End Date:	2018-10-11
Rebalanced:	Daily
Trend Following:	N/A
Weighting:	EW

Statistics

Total Return:	67.35%
CAGR:	5.71%
Annual Volatility:	9.08%
Sharpe:	0.63
Max Drawdown:	-14.37%
Sortino:	0.92

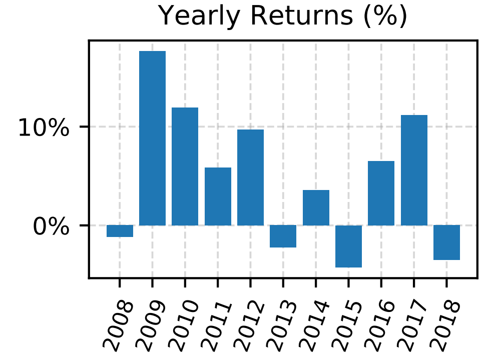
Statistics #2

$VaR_{99\%}$:	-1.68%
$CVaR_{99\%}$:	-2.39%
Placeholder:	N/A
Placeholder:	N/A
Placeholder:	N/A
Placeholder	N/A

Performance Attribution

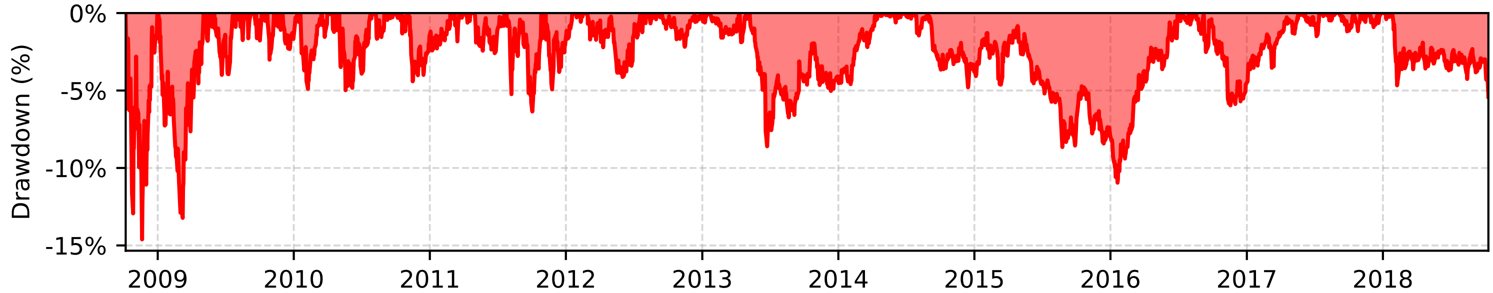
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AGG	0.6%	0.2%	0.5%	0.6%	0.3%	-0.2%	0.4%	0.0%	0.2%	0.3%	-0.2%
BWX	0.4%	0.5%	0.3%	0.3%	0.4%	-0.2%	-0.1%	-0.5%	0.1%	0.7%	-0.3%
DBC	-2.1%	1.4%	1.0%	-0.0%	0.3%	-0.6%	-2.5%	-2.3%	1.4%	0.4%	0.6%
EEM	0.3%	4.7%	1.4%	-1.2%	1.5%	-0.2%	-0.2%	-1.2%	1.0%	2.5%	-1.3%
EFA	-0.2%	2.2%	0.8%	-0.7%	1.4%	1.6%	-0.4%	0.0%	0.2%	1.8%	-0.6%
EMB	0.6%	1.2%	0.8%	0.6%	1.2%	-0.6%	0.5%	0.1%	0.7%	0.8%	-0.5%
GLD	0.3%	1.8%	2.1%	0.9%	0.6%	-2.4%	-0.1%	-0.8%	0.7%	1.0%	-0.5%
MUB	0.3%	0.5%	0.0%	1.0%	0.4%	-0.3%	0.7%	0.2%	-0.0%	0.3%	-0.1%
SHV	0.0%	0.0%	0.0%	0.0%	0.0%	-0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
SPY	-0.7%	2.1%	1.2%	0.3%	1.2%	2.2%	1.0%	0.2%	0.9%	1.5%	0.3%
TIP	-0.2%	0.7%	0.5%	1.0%	0.5%	-0.7%	0.3%	-0.1%	0.4%	0.2%	-0.1%
TLT	1.6%	-1.8%	0.8%	2.4%	0.3%	-1.0%	1.9%	-0.1%	0.1%	0.7%	-0.6%
VNQ	-1.1%	3.5%	2.2%	0.9%	1.3%	0.3%	2.1%	0.3%	0.7%	0.4%	-0.4%

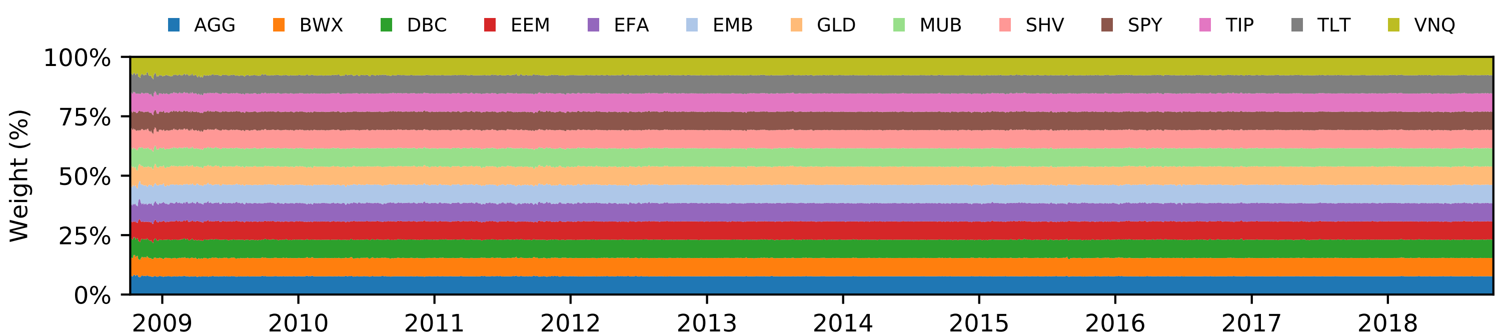
Yearly Returns (%)



Tearsheet #15

Portfolio Tearsheet: Equal Weight





Overview

Portfolio Code:	EW
Start Date:	2008-10-07
End Date:	2018-10-11
Rebalanced:	Weekly
Trend Following:	N/A
Weighting:	EW

Statistics

Total Return:	62.92%
CAGR:	5.42%
Annual Volatility:	9.01%
Sharpe:	0.60
Max Drawdown:	-14.61%
Sortino:	0.87

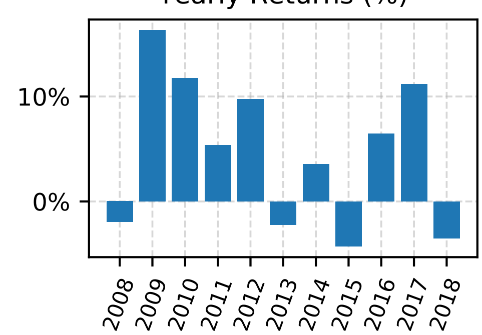
Statistics #2

$VaR_{99\%}$:	-1.68%
$CVaR_{99\%}$:	-2.38%
Placeholder:	N/A
Placeholder:	N/A
Placeholder:	N/A
Placeholder	N/A

Performance Attribution

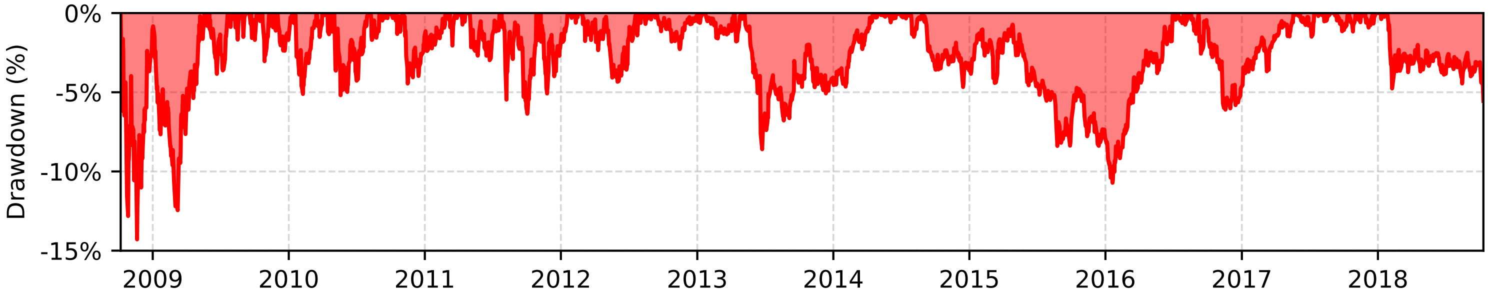
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AGG	0.5%	0.2%	0.5%	0.6%	0.3%	-0.2%	0.4%	0.0%	0.2%	0.3%	-0.2%
BWX	0.4%	0.4%	0.3%	0.3%	0.4%	-0.2%	-0.1%	-0.5%	0.1%	0.7%	-0.3%
DBC	-2.2%	1.4%	1.0%	-0.0%	0.3%	-0.6%	-2.5%	-2.3%	1.4%	0.4%	0.6%
EEM	0.1%	4.6%	1.4%	-1.3%	1.5%	-0.2%	-0.2%	-1.2%	0.9%	2.5%	-1.3%
EFA	-0.3%	2.2%	0.8%	-0.8%	1.5%	1.6%	-0.4%	0.0%	0.2%	1.8%	-0.6%
EMB	0.5%	1.2%	0.8%	0.6%	1.2%	-0.6%	0.5%	0.1%	0.7%	0.8%	-0.5%
GLD	0.3%	1.8%	2.1%	0.8%	0.6%	-2.4%	-0.1%	-0.8%	0.7%	1.0%	-0.5%
MUB	0.3%	0.5%	0.0%	1.0%	0.4%	-0.3%	0.7%	0.2%	-0.0%	0.3%	-0.1%
SHV	0.0%	0.0%	0.0%	0.0%	0.0%	-0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
SPY	-0.8%	2.0%	1.2%	0.3%	1.2%	2.2%	1.0%	0.2%	0.9%	1.5%	0.3%
TIP	-0.2%	0.7%	0.5%	1.0%	0.5%	-0.7%	0.3%	-0.1%	0.4%	0.2%	-0.1%
TLT	1.6%	-1.8%	0.7%	2.4%	0.3%	-1.1%	1.9%	-0.1%	0.1%	0.7%	-0.6%
VNQ	-1.2%	2.7%	2.2%	0.8%	1.3%	0.3%	2.1%	0.3%	0.7%	0.4%	-0.4%

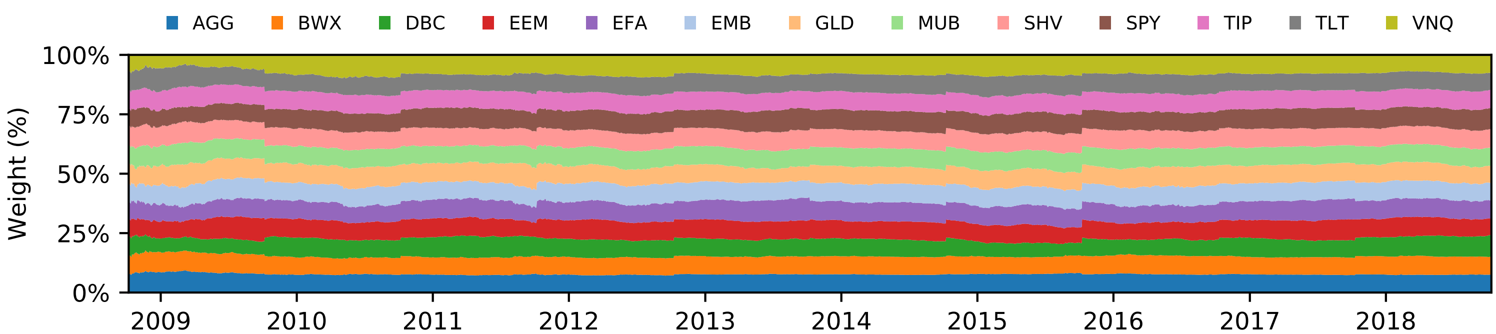
Yearly Returns (%)



Tearsheet #16

Portfolio Tearsheet: Equal Weight





Overview

Portfolio Code:	EW
Start Date:	2008-10-07
End Date:	2018-10-11
Rebalanced:	Yearly
Trend Following:	N/A
Weighting:	EW

Statistics

Total Return:	56.15%
CAGR:	4.93%
Annual Volatility:	8.51%
Sharpe:	0.58
Max Drawdown:	-14.29%
Sortino:	0.83

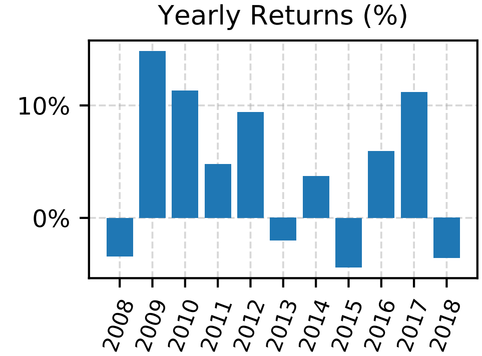
Statistics #2

$VaR_{99\%}$:	-1.48%
$CVaR_{99\%}$:	-2.19%
Placeholder:	N/A
Placeholder:	N/A
Placeholder:	N/A
Placeholder	N/A

Performance Attribution

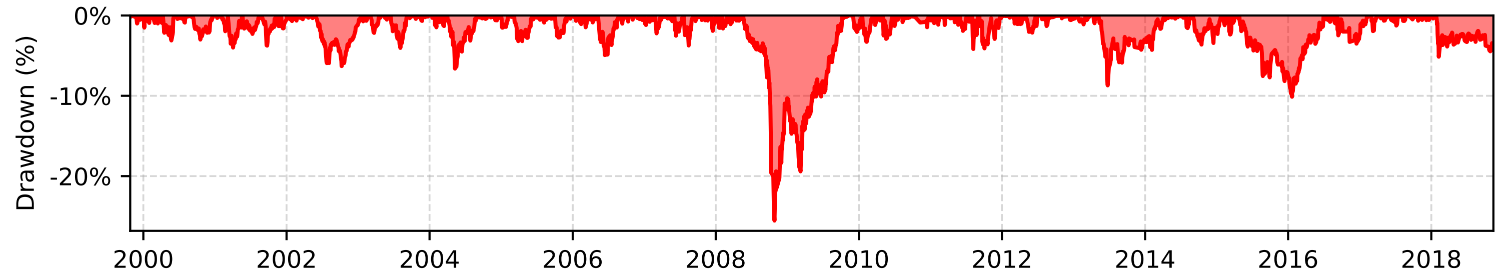
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AGG	0.6%	0.2%	0.5%	0.5%	0.3%	-0.2%	0.4%	0.0%	0.2%	0.3%	-0.2%
BWX	0.4%	0.5%	0.3%	0.3%	0.4%	-0.2%	-0.1%	-0.5%	0.1%	0.7%	-0.3%
DBC	-2.2%	1.2%	0.9%	-0.1%	0.3%	-0.6%	-2.2%	-2.1%	1.2%	0.4%	0.6%
EEM	-0.6%	4.9%	1.3%	-1.3%	1.4%	-0.3%	-0.3%	-1.3%	0.8%	2.6%	-1.3%
EFA	-0.6%	1.9%	0.6%	-0.8%	1.4%	1.7%	-0.5%	-0.1%	0.1%	1.9%	-0.6%
EMB	0.5%	1.3%	0.8%	0.6%	1.2%	-0.6%	0.5%	0.1%	0.7%	0.8%	-0.5%
GLD	0.3%	1.8%	2.2%	0.8%	0.5%	-2.2%	-0.1%	-0.8%	0.7%	0.9%	-0.5%
MUB	0.3%	0.6%	0.0%	0.9%	0.4%	-0.3%	0.7%	0.2%	-0.0%	0.3%	-0.1%
SHV	0.0%	0.0%	0.0%	0.0%	0.0%	-0.0%	-0.0%	0.0%	0.0%	0.1%	0.1%
SPY	-0.9%	1.8%	1.1%	0.2%	1.3%	2.3%	1.0%	0.1%	0.9%	1.6%	0.3%
TIP	-0.2%	0.7%	0.4%	0.9%	0.5%	-0.7%	0.3%	-0.1%	0.4%	0.2%	-0.1%
TLT	1.9%	-2.2%	0.6%	2.2%	0.2%	-1.0%	1.9%	-0.1%	0.2%	0.6%	-0.6%
VNQ	-2.1%	1.8%	2.3%	0.8%	1.4%	0.2%	2.2%	0.2%	0.7%	0.4%	-0.4%

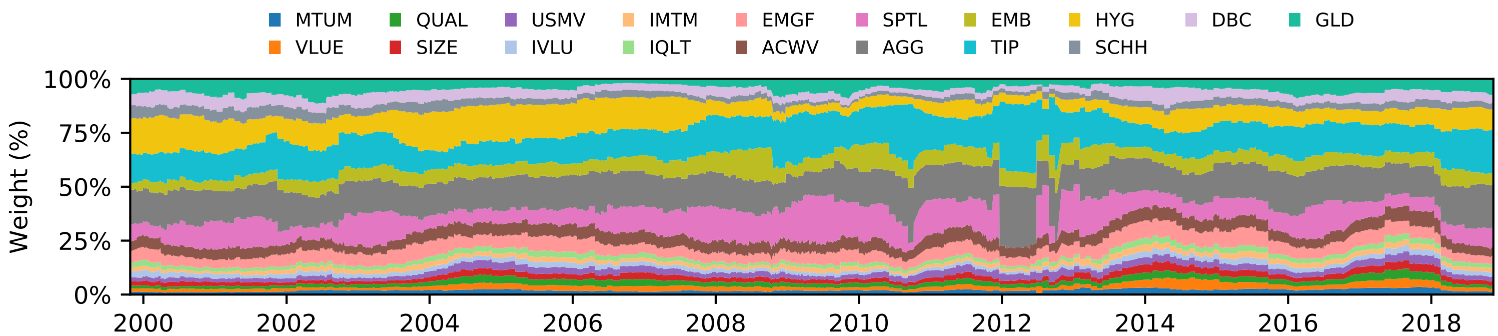
Yearly Returns (%)



Tearsheet #17

Portfolio Tearsheet: Rolling lookback 200-Day



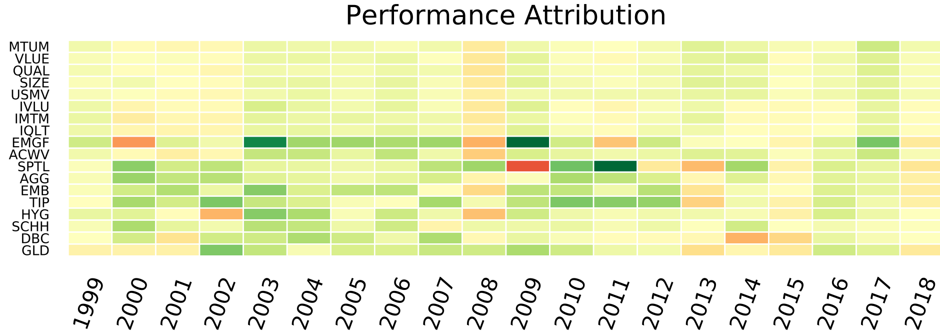


Overview	
Portfolio Code:	RP
Start Date:	1999-10-26
End Date:	2018-11-14
Rebalanced:	Monthly
Trend Following:	N/A
Weighting:	RP 200

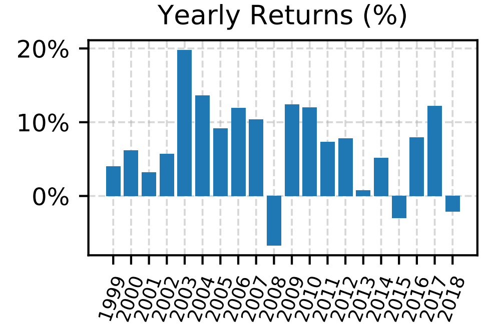
Statistics	
Total Return:	266.98%
CAGR:	7.68%
Annual Volatility:	5.55%
Sharpe:	1.16
Max Drawdown:	-25.54%
Sortino:	1.66

Statistics #2	
$VaR_{99\%}$:	-0.90%
$CVaR_{99\%}$:	-1.44%
Beta:	0.18
Alpha:	6.07%
R-Squared:	35.43%
Treynor:	0.36

Performance Attribution

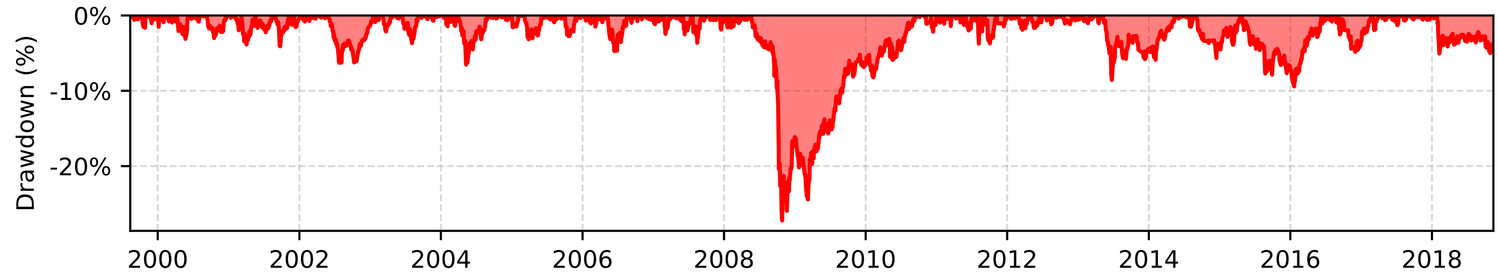


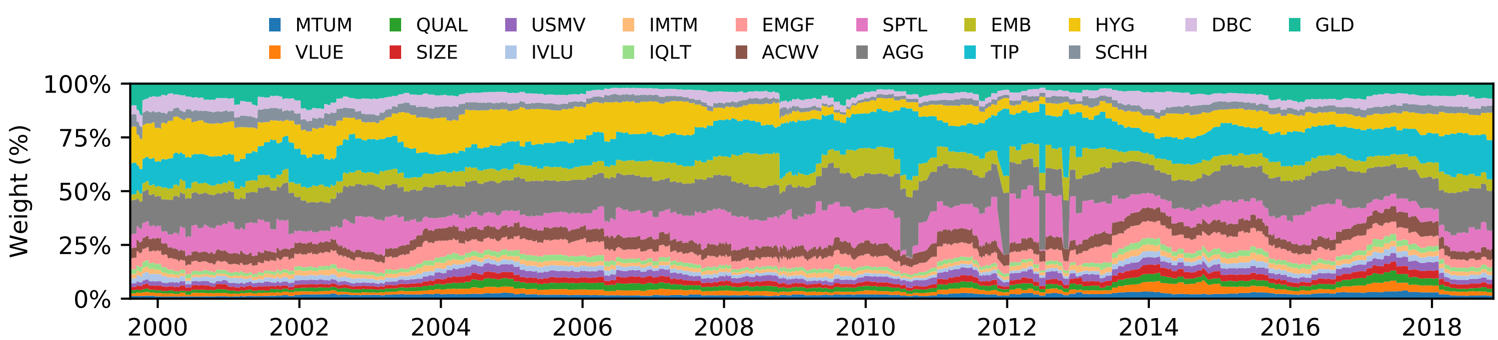
Yearly Returns (%)



Tearsheet #18

Portfolio Tearsheet: Rolling lookback 150-Day





Overview

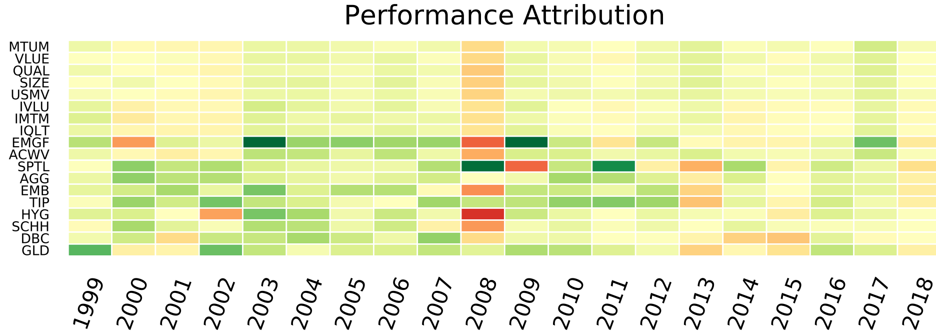
Portfolio Code:	RP
Start Date:	1999-08-12
End Date:	2018-11-14
Rebalanced:	Monthly
Trend Following:	N/A
Weighting:	RP 150

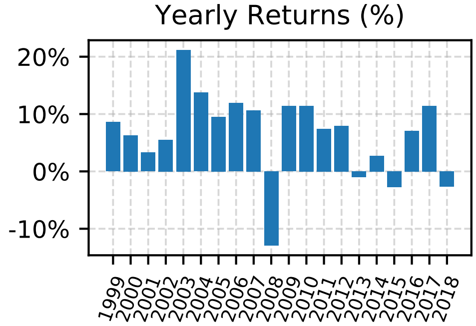
Statistics

Total Return:	238.64%
CAGR:	7.07%
Annual Volatility:	5.57%
Sharpe:	1.04
Max Drawdown:	-27.23%
Sortino:	1.47

Statistics #2

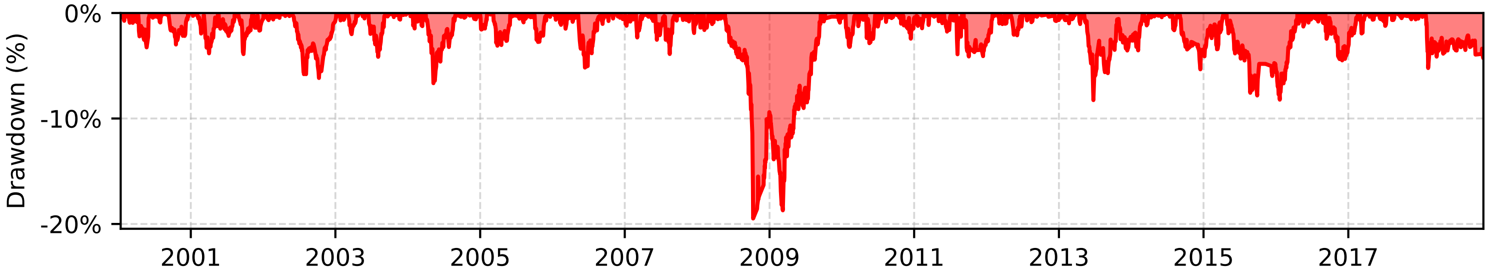
$VaR_{99\%}$:	-0.91%
$CVaR_{99\%}$:	-1.48%
Beta:	0.17
Alpha:	5.86%
R-Squared:	34.25%
Treynor:	0.34

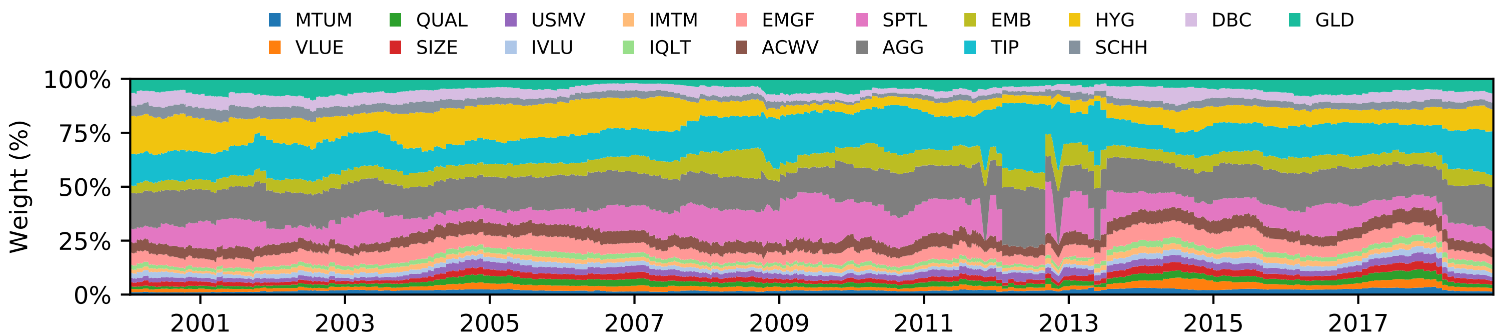




Tearsheet #19

Portfolio Tearsheet: Rolling lookback 250-Day



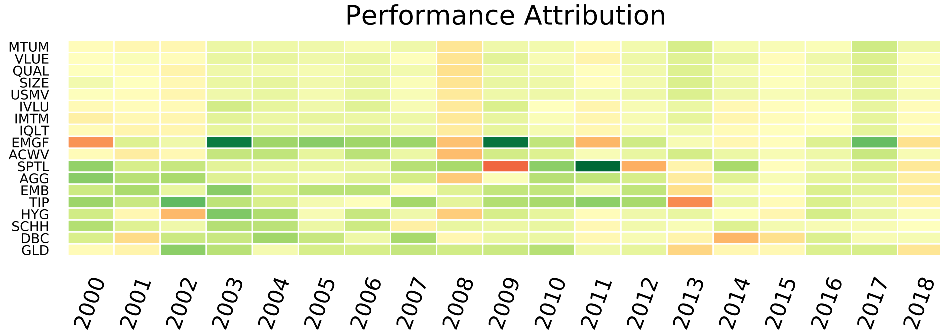


Overview	
Portfolio Code:	RP
Start Date:	2000-01-13
End Date:	2018-11-14
Rebalanced:	Monthly
Trend Following:	N/A
Weighting:	RP 250

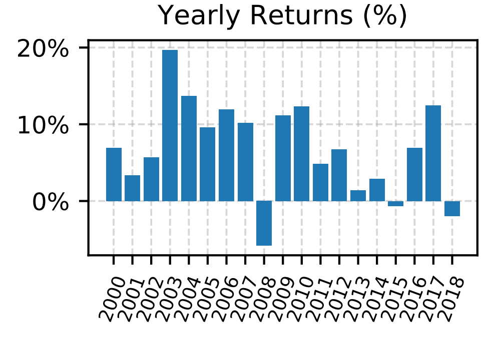
Statistics	
Total Return:	246.20%
CAGR:	7.47%
Annual Volatility:	5.36%
Sharpe:	1.16
Max Drawdown:	-19.48%
Sortino:	1.68

Statistics #2	
$VaR_{99\%}$:	-0.89%
$CVaR_{99\%}$:	-1.32%
Beta:	0.17
Alpha:	6.14%
R-Squared:	32.74%
Treynor:	0.36

Performance Attribution

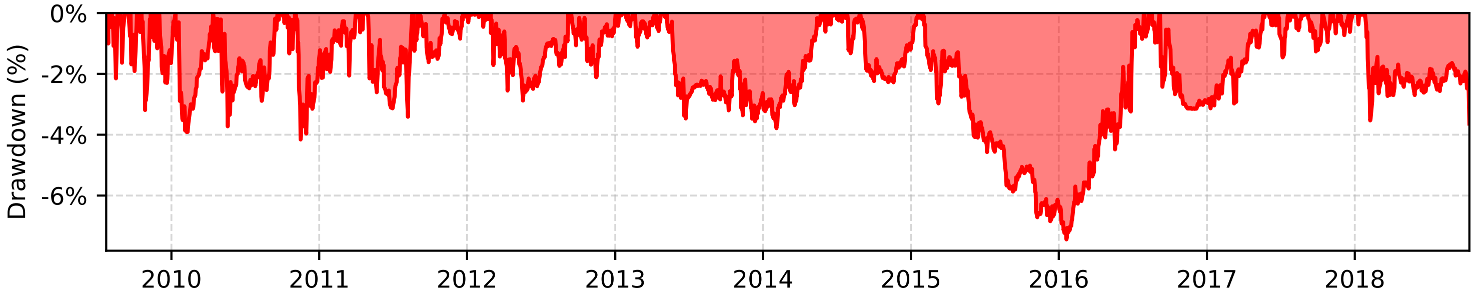


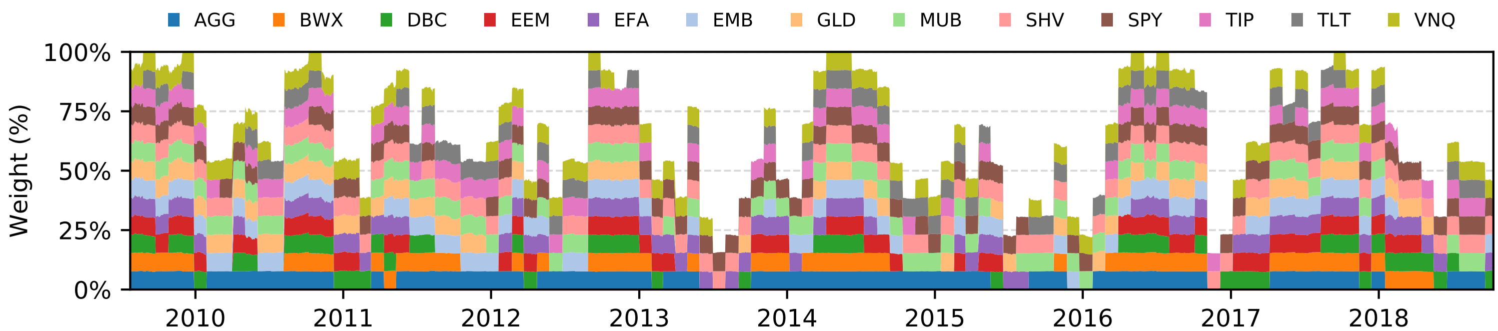
Yearly Returns (%)



Tearsheet #20

Portfolio Tearsheet: Trend Following Equal Weight





Overview

Portfolio Code:	EW_TF
Start Date:	2009-07-24
End Date:	2018-10-11
Rebalanced:	Monthly
Trend Following:	100 SMA
Weighting:	EW

Statistics

Total Return:	33.54%
CAGR:	3.30%
Annual Volatility:	4.56%
Sharpe:	0.72
Max Drawdown:	-7.44%
Sortino:	1.02

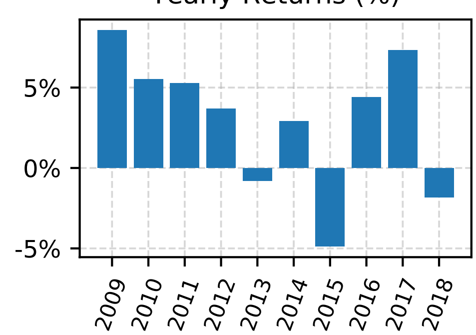
Statistics #2

$VaR_{99\%}$:	-0.93%
$CVaR_{99\%}$:	-1.11%
Placeholder:	N/A
Placeholder:	N/A
Placeholder:	N/A
Placeholder	N/A

Performance Attribution

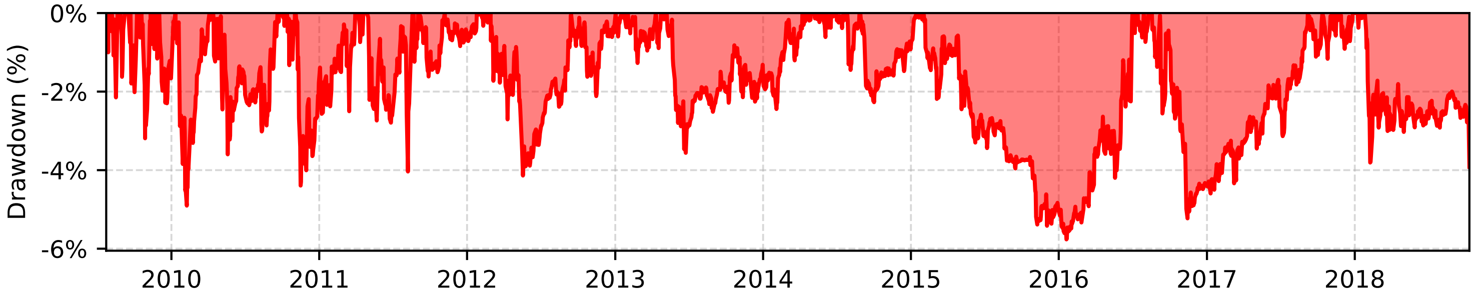
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AGG	0.2%	0.3%	0.4%	0.2%	-0.1%	0.4%	0.0%	0.3%	0.1%	-0.0%
BWX	0.3%	-0.1%	0.4%	-0.0%	-0.5%	0.1%	-0.3%	0.3%	0.4%	-0.1%
DBC	-0.2%	0.2%	0.2%	-0.5%	-0.6%	-0.1%	-0.3%	0.3%	0.7%	0.3%
EEM	1.3%	-0.3%	-0.9%	1.0%	-0.2%	-0.4%	-0.7%	0.7%	2.3%	0.1%
EFA	1.0%	0.2%	0.1%	0.3%	1.1%	-0.4%	-0.2%	-0.0%	1.6%	-0.6%
EMB	0.7%	0.8%	0.5%	0.9%	-0.7%	0.6%	-0.4%	0.8%	0.6%	-0.3%
GLD	1.2%	2.0%	0.7%	-0.4%	-0.5%	-1.1%	-1.7%	0.6%	-0.2%	-0.3%
MUB	0.3%	0.0%	0.8%	0.3%	-0.2%	0.7%	0.2%	0.3%	0.2%	-0.1%
SHV	0.0%	0.0%	0.0%	0.0%	-0.0%	-0.0%	-0.0%	0.0%	0.1%	0.1%
SPY	1.1%	0.5%	-0.2%	0.6%	2.2%	0.4%	-0.5%	-0.2%	1.5%	0.1%
TIP	0.4%	0.2%	0.8%	0.3%	-0.5%	0.1%	-0.4%	0.1%	-0.1%	-0.3%
TLT	-0.6%	0.8%	2.1%	-0.0%	-0.7%	1.5%	-0.5%	0.5%	0.3%	-0.3%
VNQ	2.8%	1.0%	0.3%	1.0%	-0.0%	1.2%	-0.1%	0.6%	-0.3%	-0.5%

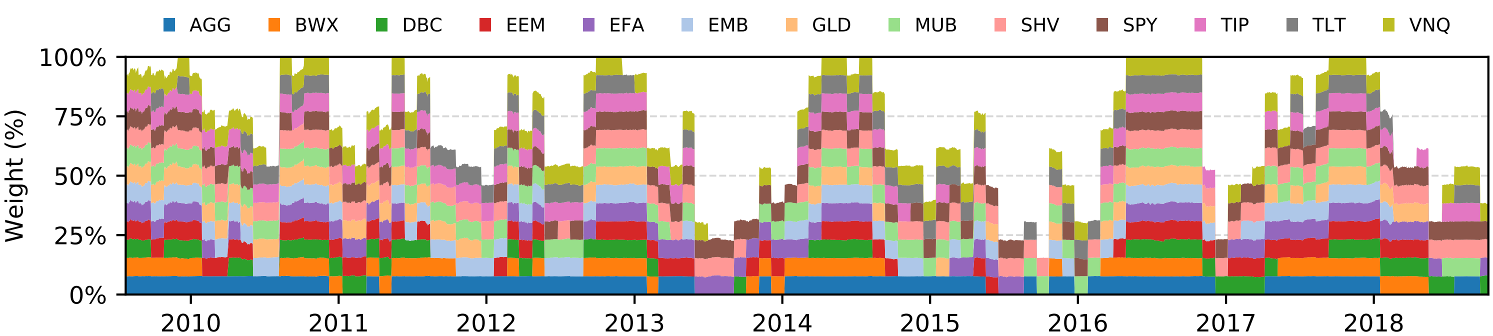
Yearly Returns (%)



Tearsheet #21

Portfolio Tearsheet: Trend Following Equal Weight





Overview

Portfolio Code:	EW_TF
Start Date:	2009-07-24
End Date:	2018-10-11
Rebalanced:	Monthly
Trend Following:	150 SMA
Weighting:	EW

Statistics

Total Return:	32.73%
CAGR:	3.24%
Annual Volatility:	4.75%
Sharpe:	0.68
Max Drawdown:	-5.76%
Sortino:	0.95

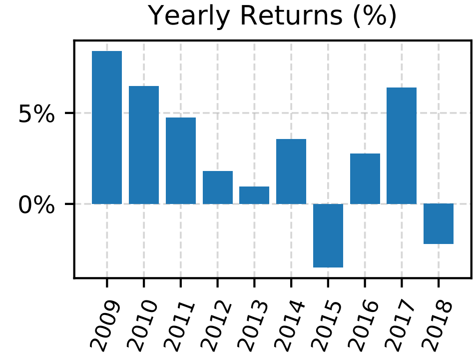
Statistics #2

$VaR_{99\%}$:	-0.96%
$CVaR_{99\%}$:	-1.17%
Placeholder:	N/A
Placeholder:	N/A
Placeholder:	N/A
Placeholder	N/A

Performance Attribution

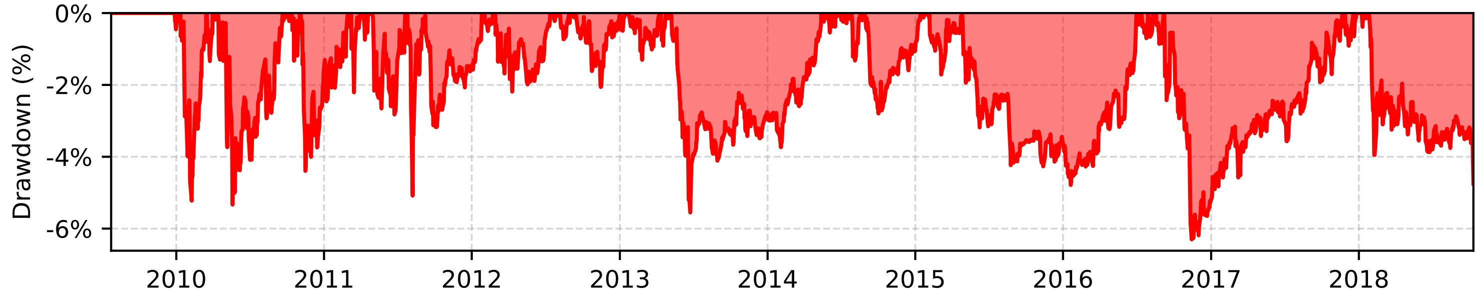
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AGG	0.2%	0.4%	0.4%	0.3%	-0.2%	0.4%	-0.1%	0.1%	0.2%	-0.1%
BWX	0.3%	0.0%	0.2%	-0.0%	-0.3%	0.2%	-0.3%	0.3%	0.5%	-0.1%
DBC	-0.3%	0.2%	0.5%	-1.0%	-0.5%	-0.3%	0.0%	0.8%	0.0%	0.3%
EEM	1.3%	0.6%	-0.9%	-0.1%	-0.3%	-0.4%	-0.4%	0.5%	2.3%	0.0%
EFA	1.0%	0.1%	0.2%	-0.1%	1.6%	0.0%	-0.2%	-0.0%	1.6%	-0.6%
EMB	0.7%	0.8%	0.3%	1.2%	-0.5%	0.2%	-0.4%	0.5%	0.6%	-0.2%
GLD	1.2%	2.0%	0.9%	-0.4%	-0.0%	-1.1%	-1.1%	-0.3%	-0.7%	-0.3%
MUB	0.3%	-0.0%	0.6%	0.4%	-0.2%	0.7%	0.1%	0.2%	0.2%	-0.1%
SHV	0.0%	0.0%	0.0%	-0.0%	-0.0%	-0.0%	-0.0%	0.0%	0.1%	0.1%
SPY	1.1%	0.5%	-0.5%	0.7%	2.2%	0.4%	-0.1%	-0.2%	1.5%	0.3%
TIP	0.4%	0.4%	0.6%	0.5%	-0.3%	0.2%	-0.4%	0.1%	-0.1%	-0.3%
TLT	-0.7%	0.4%	2.1%	-0.2%	-0.5%	1.5%	-0.8%	0.8%	0.3%	-0.7%
VNQ	2.8%	1.0%	0.4%	0.8%	-0.0%	1.8%	0.1%	-0.0%	-0.0%	-0.5%

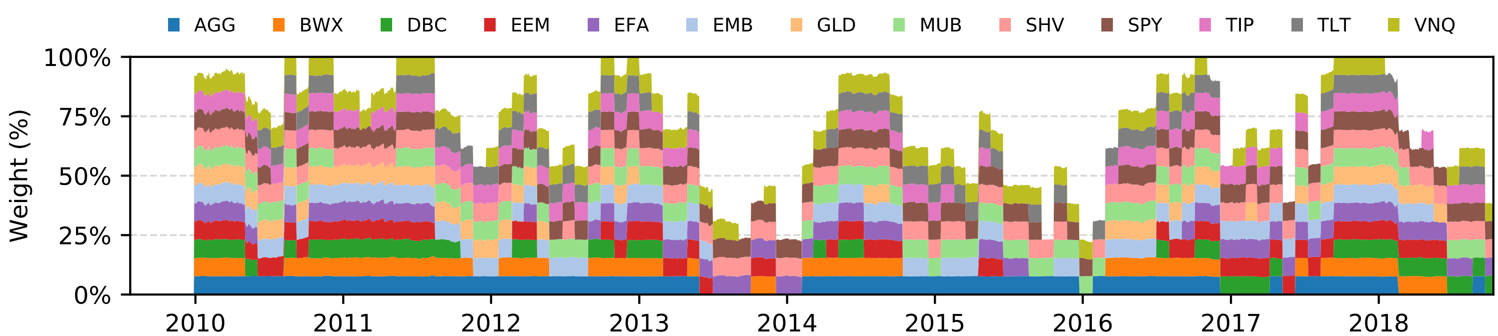
Yearly Returns (%)



Tearsheet #22

Portfolio Tearsheet: Trend Following Equal Weight





Overview

Portfolio Code:	EW_TF
Start Date:	2009-07-24
End Date:	2018-10-11
Rebalanced:	Monthly
Trend Following:	300 SMA
Weighting:	EW

Statistics

Total Return:	21.43%
CAGR:	2.24%
Annual Volatility:	4.59%
Sharpe:	0.49
Max Drawdown:	-6.30%
Sortino:	0.67

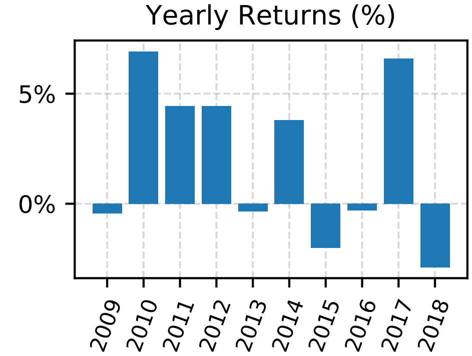
Statistics #2

$VaR_{99\%}$:	-0.92%
$CVaR_{99\%}$:	-1.22%
Placeholder:	N/A
Placeholder:	N/A
Placeholder:	N/A
Placeholder	N/A

Performance Attribution

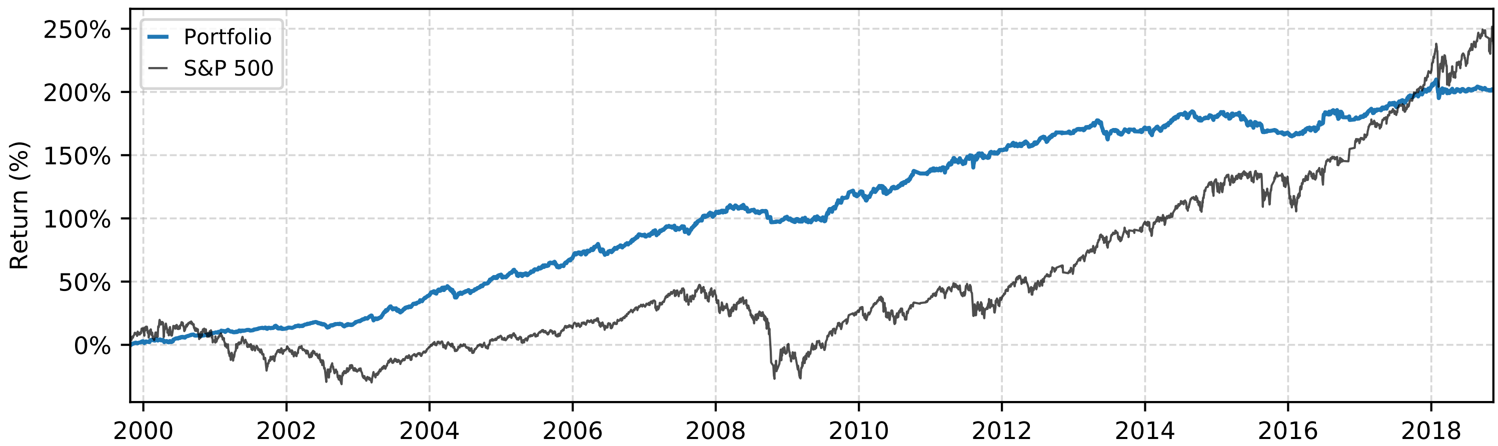
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AGG	0.0%	0.5%	0.6%	0.3%	-0.1%	0.3%	0.0%	0.1%	0.1%	-0.2%
BWX	-0.0%	-0.2%	0.3%	0.2%	-0.6%	0.1%	0.0%	-0.1%	-0.1%	-0.2%
DBC	-0.0%	0.1%	0.0%	-0.6%	-0.2%	-0.2%	0.0%	-0.3%	0.0%	0.5%
EEM	0.0%	1.3%	-0.8%	0.2%	-1.0%	-0.0%	-0.4%	0.2%	2.5%	-0.4%
EFA	-0.1%	-0.8%	-0.4%	0.4%	1.6%	-0.6%	-0.4%	-0.1%	1.8%	-0.8%
EMB	0.0%	0.8%	0.6%	1.2%	-0.7%	0.0%	-0.0%	0.6%	0.8%	-0.4%
GLD	-0.1%	2.0%	0.8%	-0.4%	0.0%	-0.5%	0.0%	-0.3%	-0.4%	-0.1%
MUB	0.0%	-0.0%	0.6%	0.4%	-0.0%	0.5%	0.2%	-0.1%	0.1%	-0.1%
SHV	-0.0%	0.0%	0.0%	-0.0%	-0.0%	-0.0%	-0.0%	0.0%	0.1%	0.1%
SPY	-0.1%	0.5%	-0.2%	0.8%	2.2%	1.1%	-0.1%	0.3%	1.5%	0.3%
TIP	0.0%	0.5%	0.6%	0.5%	-0.2%	-0.0%	-0.2%	0.1%	-0.0%	-0.3%
TLT	0.0%	0.0%	2.1%	0.2%	-0.7%	1.3%	-0.9%	-0.2%	0.1%	-0.7%
VNQ	-0.2%	2.2%	0.2%	1.3%	-0.5%	1.8%	-0.2%	-0.5%	-0.0%	-0.5%

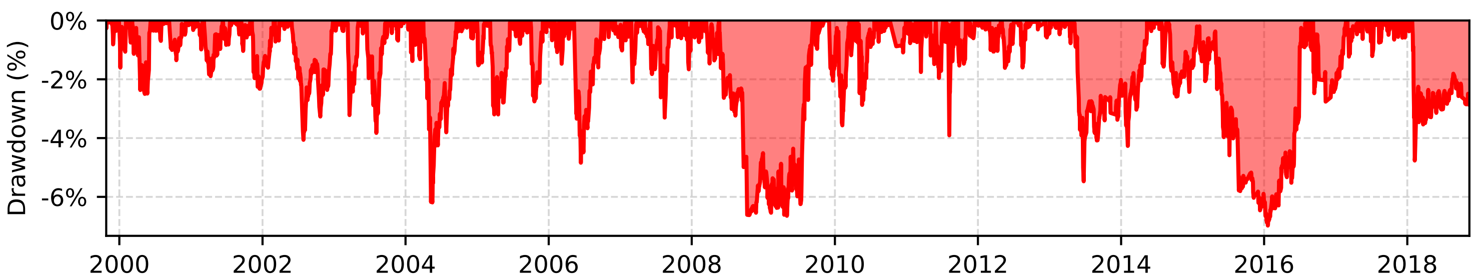
Yearly Returns (%)

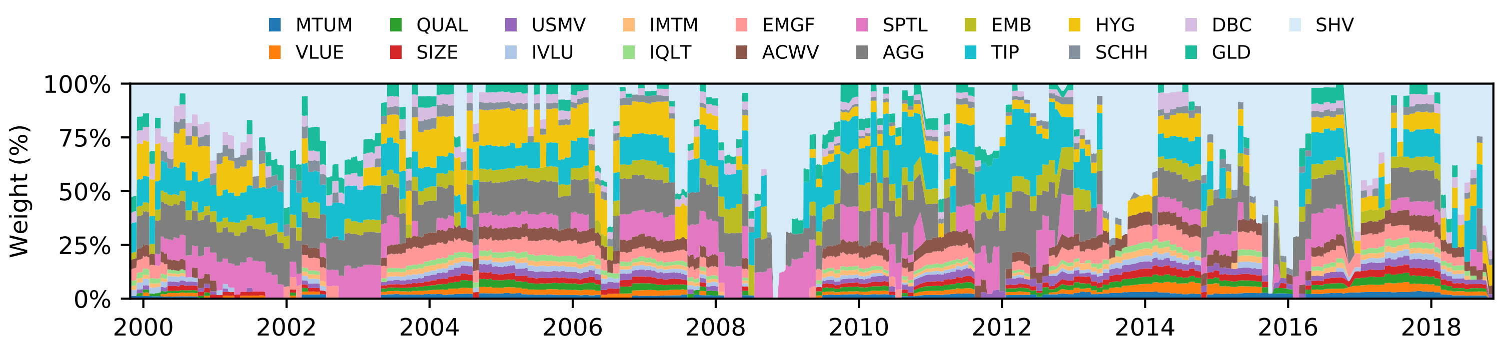


Tearsheet #23

Portfolio Tearsheet: Asset Universe 1







Overview

Portfolio Code:	RP
Start Date:	1999-10-26
End Date:	2018-11-14
Rebalanced:	Monthly
Trend Following:	N/A
Weighting:	RP 200

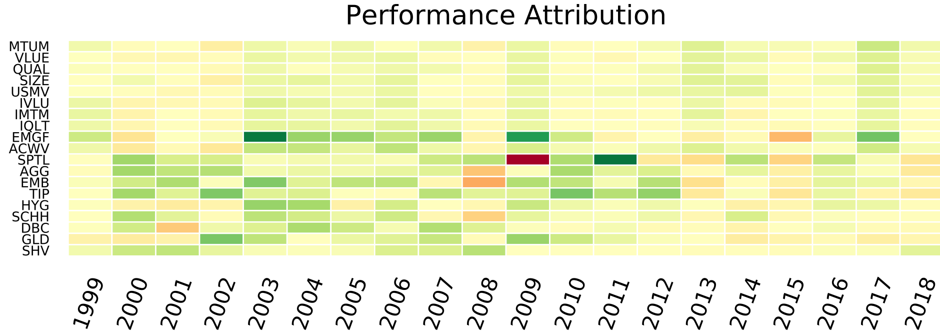
Statistics

Total Return:	201.03%
CAGR:	6.42%
Annual Volatility:	3.98%
Sharpe:	1.30
Max Drawdown:	-6.98%
Sortino:	1.88

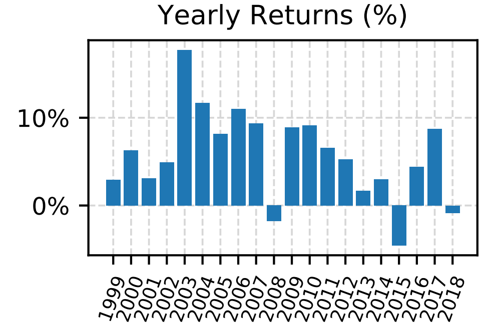
Statistics #2

$VaR_{99\%}$:	-0.68%
$CVaR_{99\%}$:	-0.91%
Beta:	0.06
Alpha:	5.87%
R-Squared:	7.95%
Treynor:	0.86

Performance Attribution

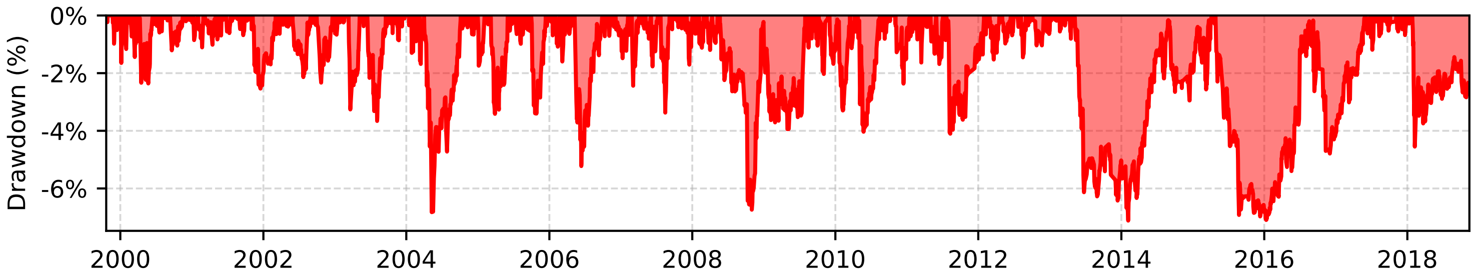


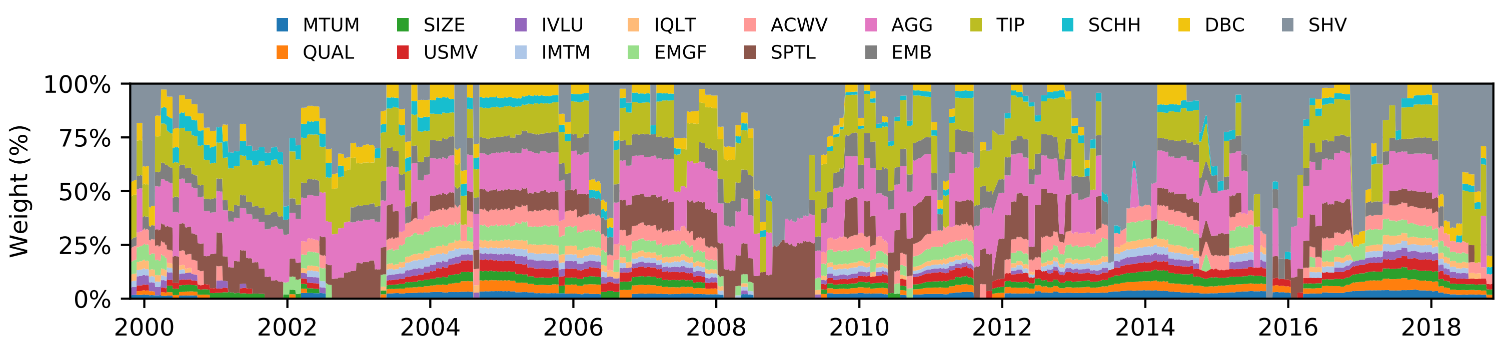
Yearly Returns (%)



Tearsheet #24

Portfolio Tearsheet: Asset Universe 2





Overview

Portfolio Code:	RP
Start Date:	1999-10-21
End Date:	2018-11-14
Rebalanced:	Monthly
Trend Following:	N/A
Weighting:	RP 200

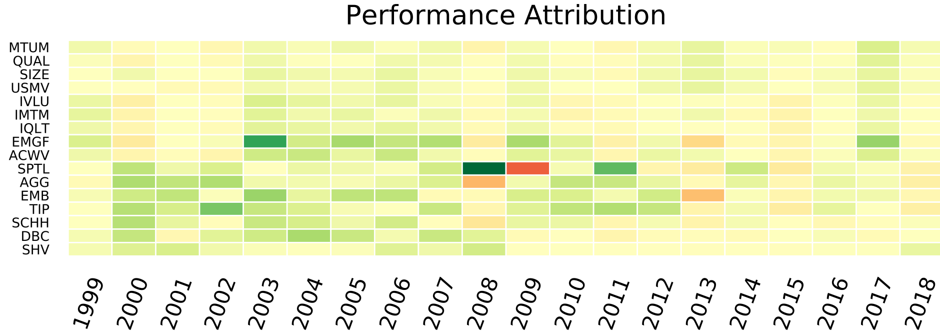
Statistics

Total Return:	223.97%
CAGR:	6.76%
Annual Volatility:	4.25%
Sharpe:	1.29
Max Drawdown:	-7.11%
Sortino:	1.86

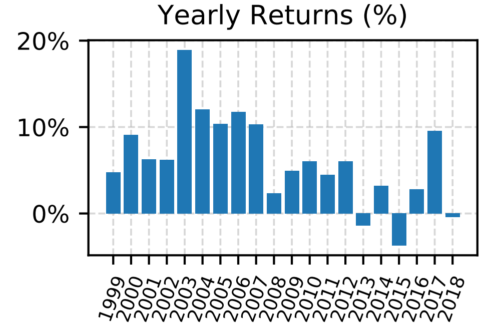
Statistics #2

$VaR_{99\%}$:	-0.75%
$CVaR_{99\%}$:	-0.98%
Beta:	0.06
Alpha:	6.38%
R-Squared:	6.19%
Treynor:	0.99

Performance Attribution

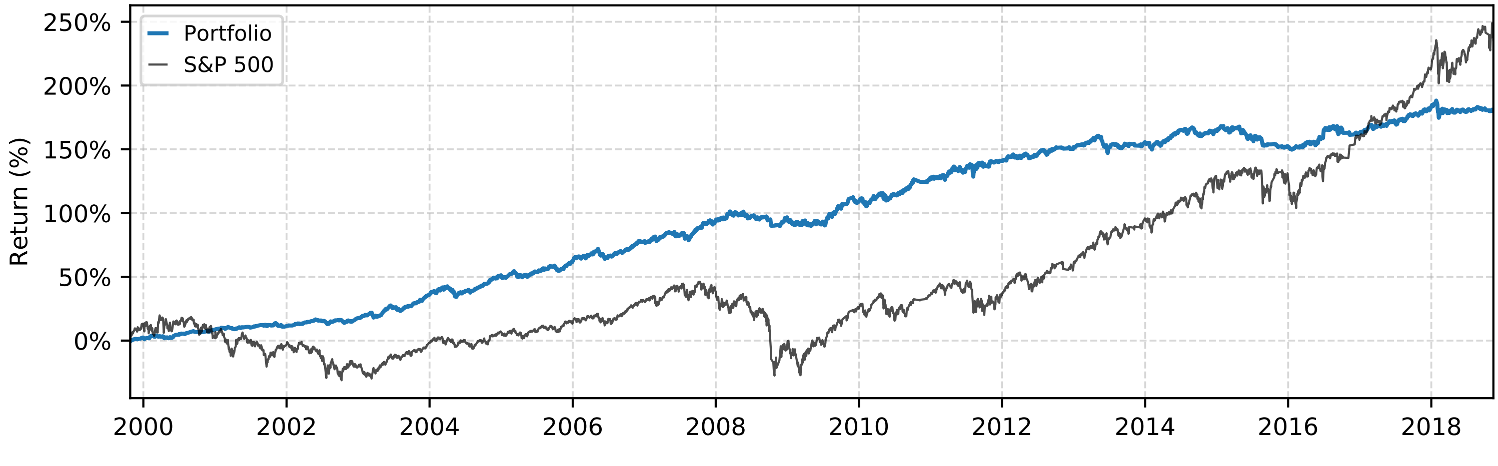


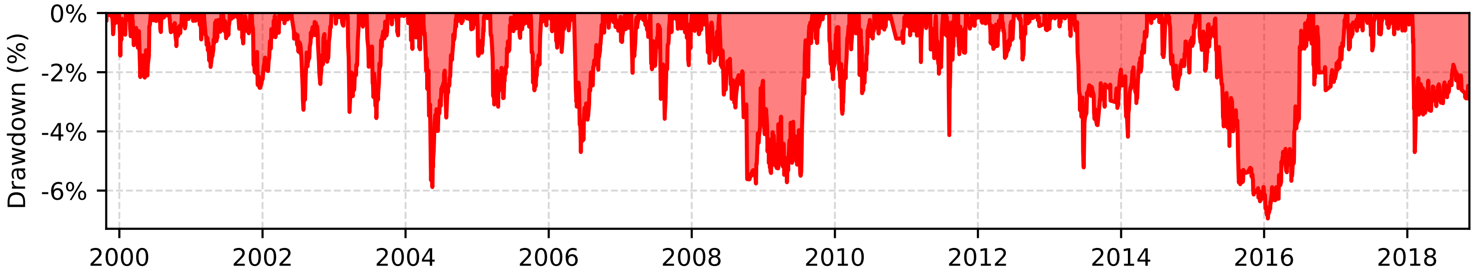
Yearly Returns (%)

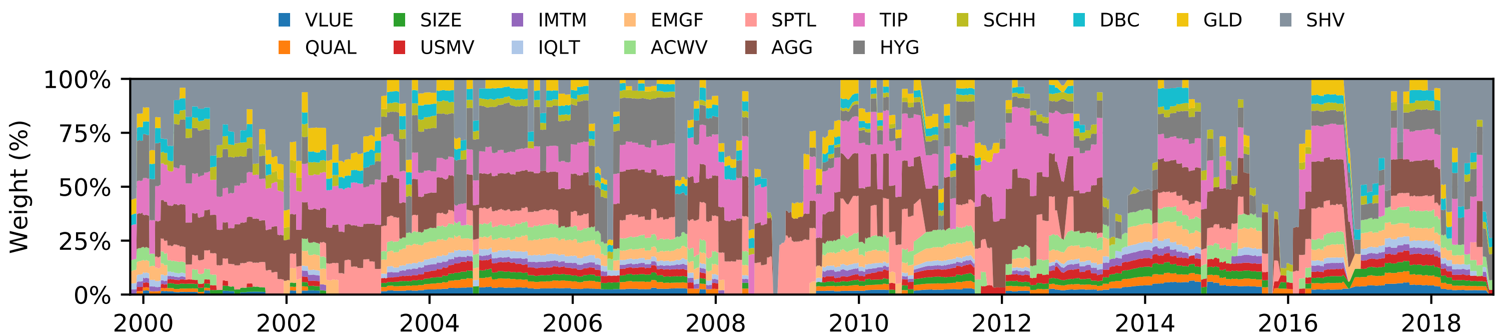


Tearsheet #25

Portfolio Tearsheet: Asset Universe 3







Overview

Portfolio Code:	RP
Start Date:	1999-10-26
End Date:	2018-11-14
Rebalanced:	Monthly
Trend Following:	N/A
Weighting:	RP 200

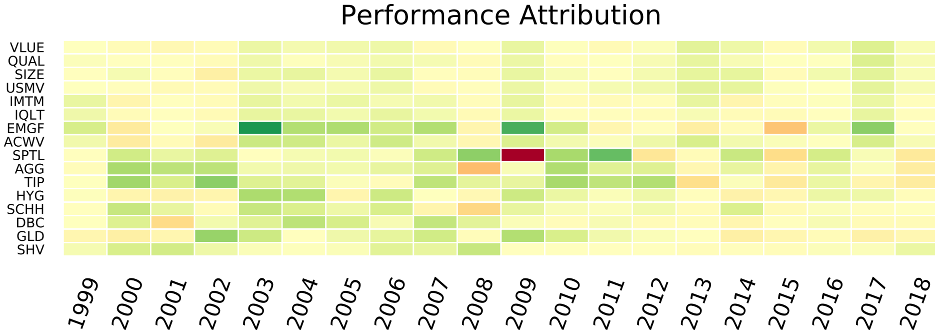
Statistics

Total Return:	179.91%
CAGR:	5.99%
Annual Volatility:	3.96%
Sharpe:	1.20
Max Drawdown:	-6.94%
Sortino:	1.74

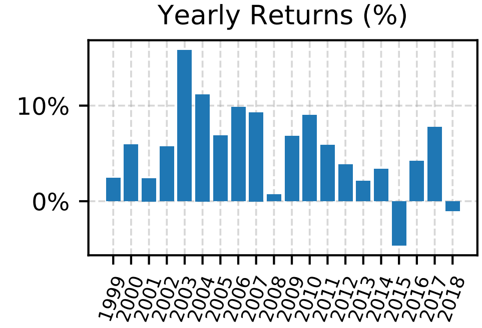
Statistics #2

$VaR_{99\%}$:	-0.68%
$CVaR_{99\%}$:	-0.89%
Beta:	0.05
Alpha:	5.52%
R-Squared:	6.20%
Treynor:	0.90

Performance Attribution

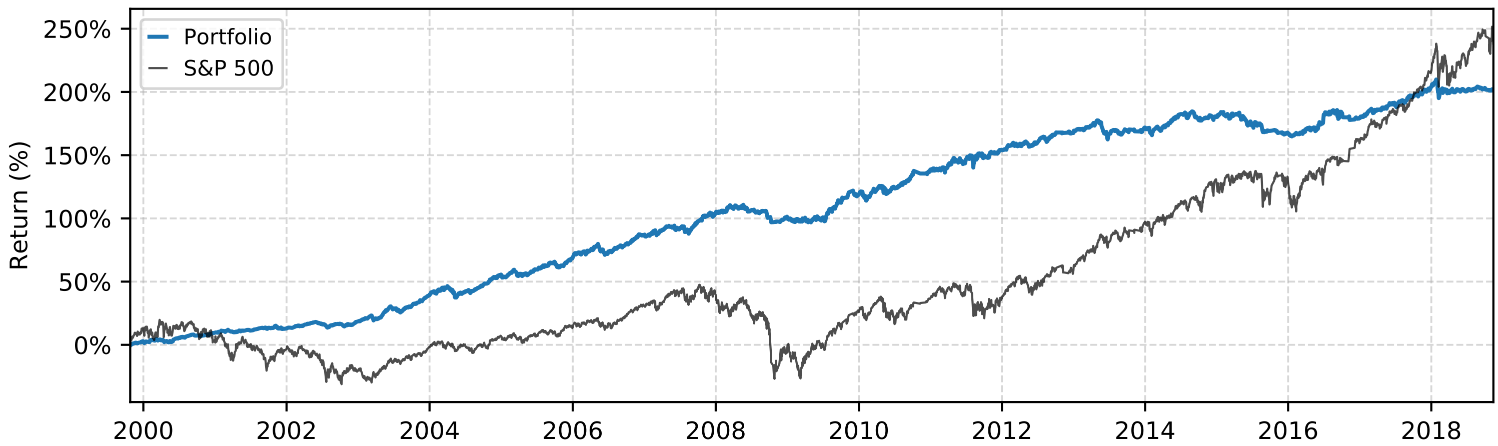


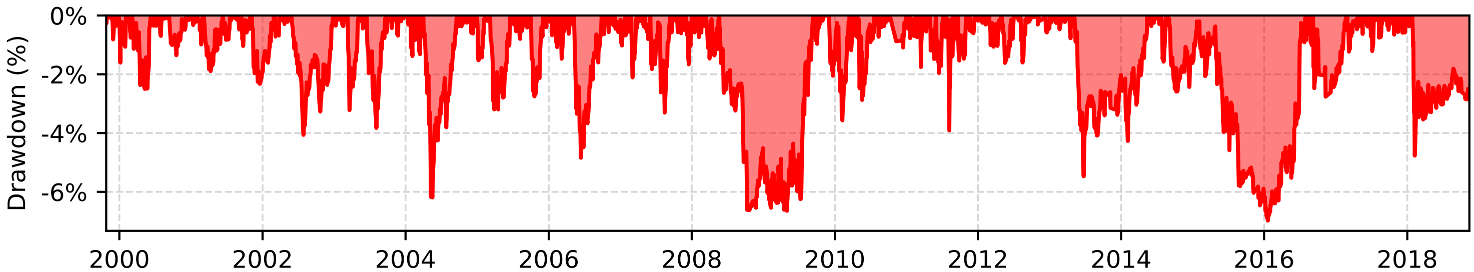
Yearly Returns (%)

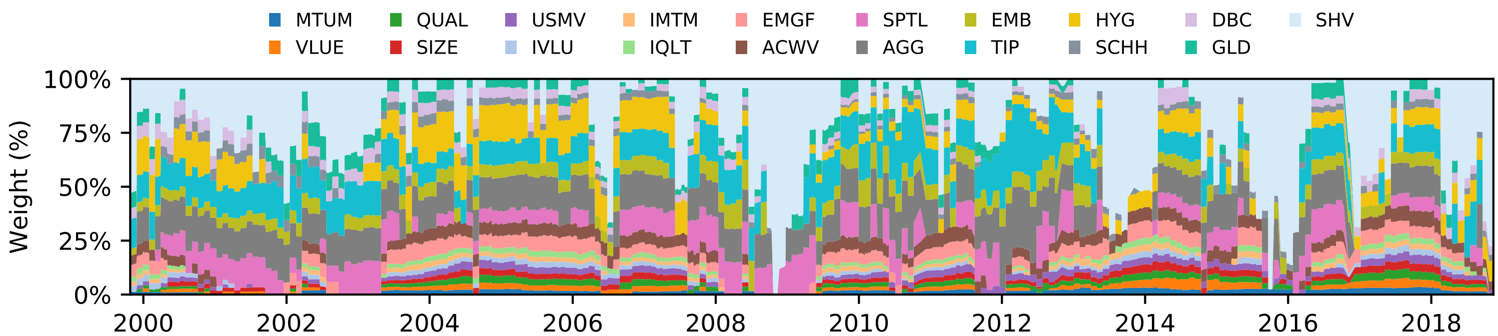


Tearsheet #26

Portfolio Tearsheet: Preservation





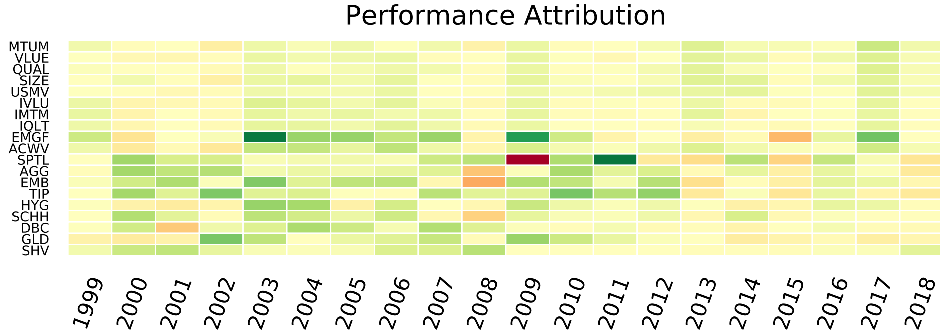


Overview	
Portfolio Code:	RP
Start Date:	1999-10-26
End Date:	2018-11-14
Rebalanced:	Monthly
Trend Following:	200 SMA
Weighting:	RP 200

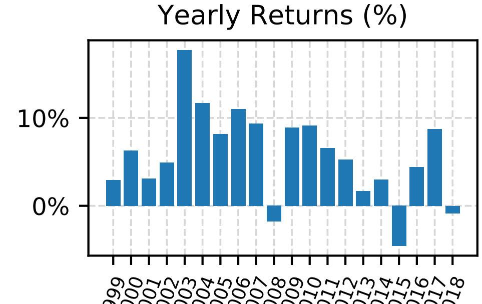
Statistics	
Total Return:	201.03%
CAGR:	6.42%
Annual Volatility:	3.98%
Sharpe:	1.30
Max Drawdown:	-6.98%
Sortino:	1.88

Statistics #2	
$VaR_{99\%}$:	-0.68%
$CVaR_{99\%}$:	-0.91%
Beta:	0.06
Alpha:	5.87%
R-Squared:	7.95%
Treynor:	0.86

Performance Attribution

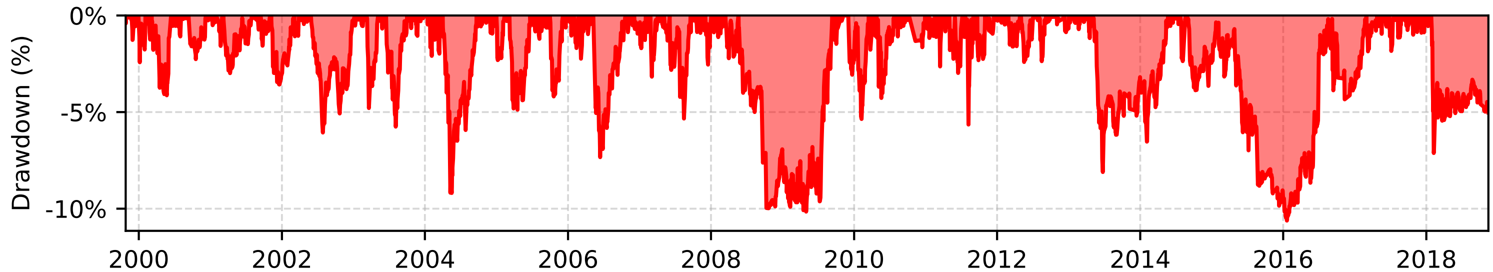


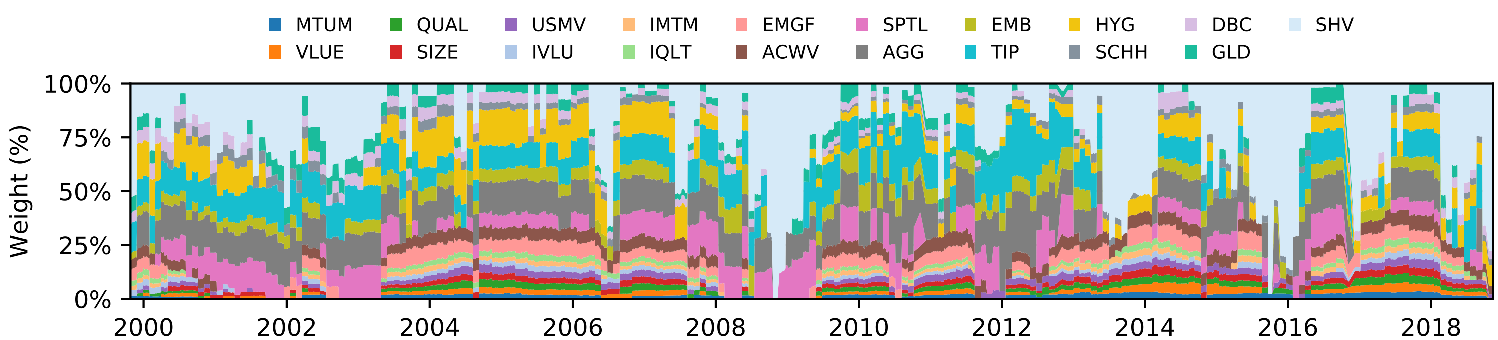
Yearly Returns (%)



Tearsheet #27

Portfolio Tearsheet: Conservative





Overview

Portfolio Code:	RP 1.5x
Start Date:	1999-10-26
End Date:	2018-11-14
Rebalanced:	Monthly
Trend Following:	200 SMA
Weighting:	RP 200

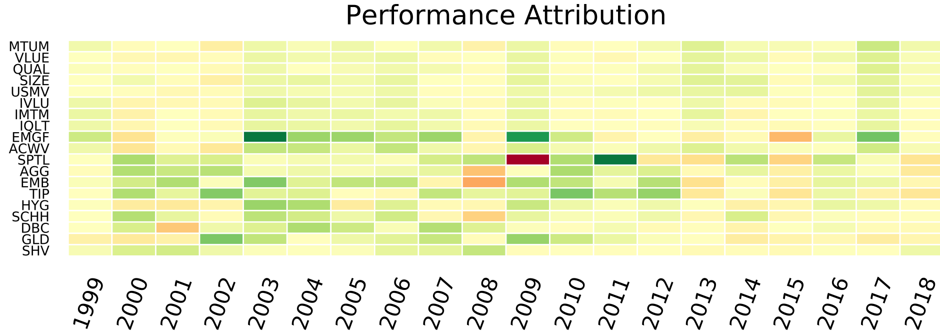
Statistics

Total Return:	344.80%
CAGR:	8.87%
Annual Volatility:	5.96%
Sharpe:	1.28
Max Drawdown:	-10.62%
Sortino:	1.84

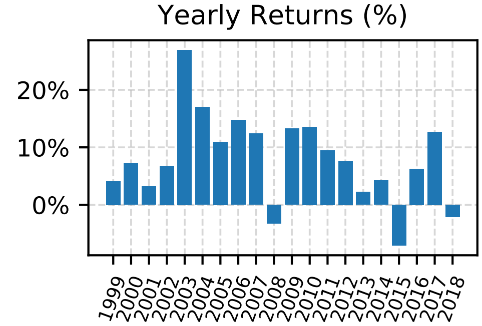
Statistics #2

$VaR_{99\%}$:	-1.03%
$CVaR_{99\%}$:	-1.36%
Beta:	0.09
Alpha:	8.04%
R-Squared:	7.78%
Treynor:	0.85

Performance Attribution

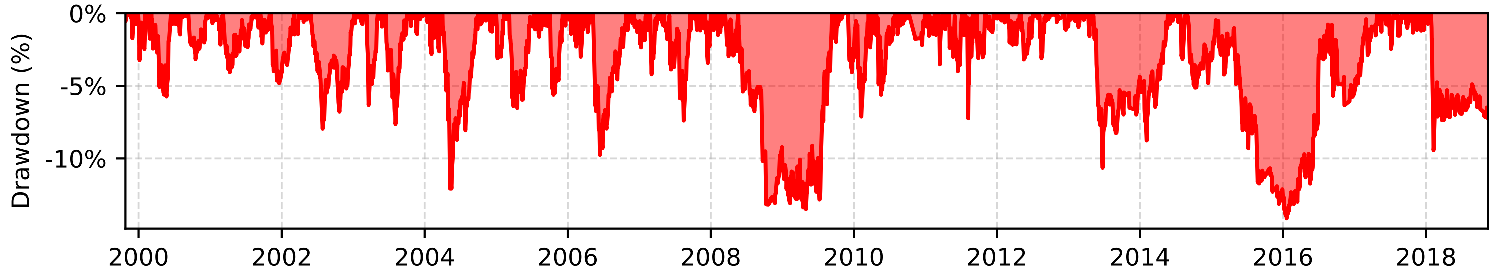


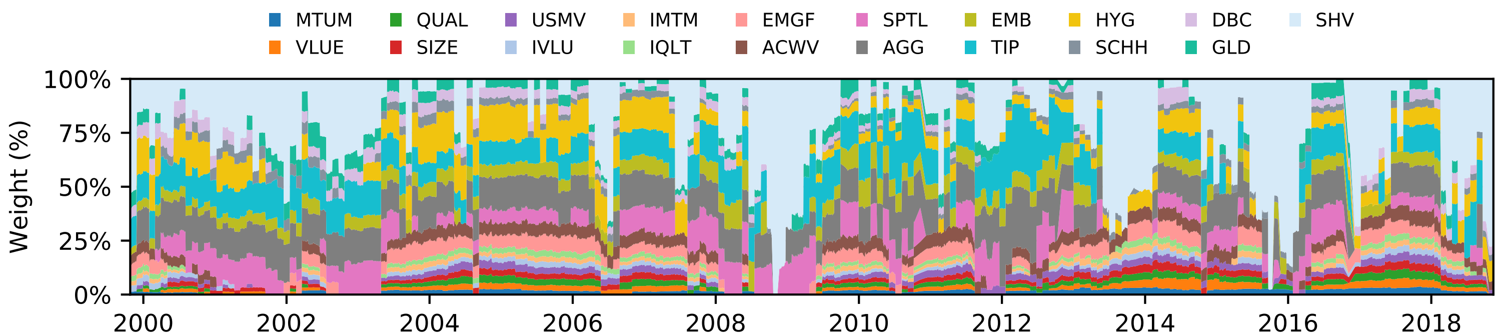
Yearly Returns (%)



Tearsheet #28

Portfolio Tearsheet: Balanced



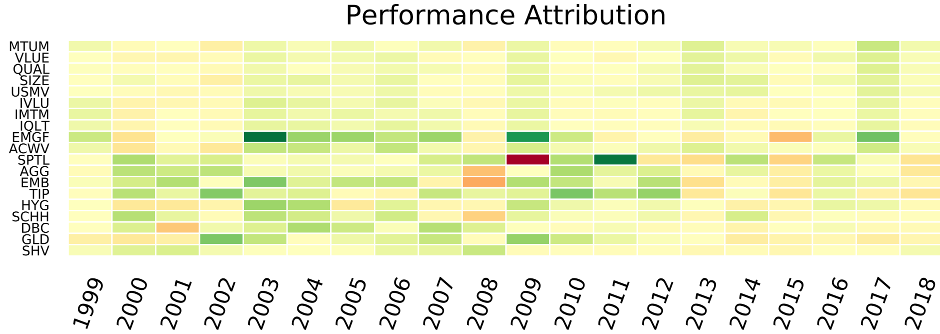


Overview	
Portfolio Code:	RP 2x
Start Date:	1999-10-26
End Date:	2018-11-14
Rebalanced:	Monthly
Trend Following:	200 SMA
Weighting:	RP 200

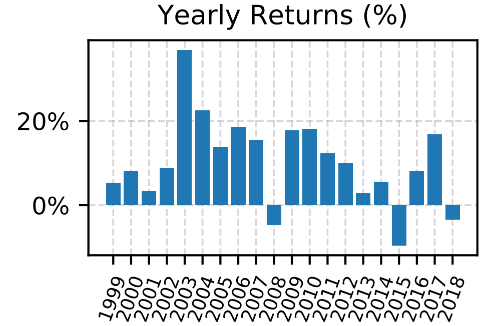
Statistics	
Total Return:	552.76%
CAGR:	11.37%
Annual Volatility:	7.93%
Sharpe:	1.27
Max Drawdown:	-14.13%
Sortino:	1.83

Statistics #2	
$VaR_{99\%}$:	-1.37%
$CVaR_{99\%}$:	-1.80%
Beta:	0.12
Alpha:	10.26%
R-Squared:	7.61%
Treynor:	0.86

Performance Attribution

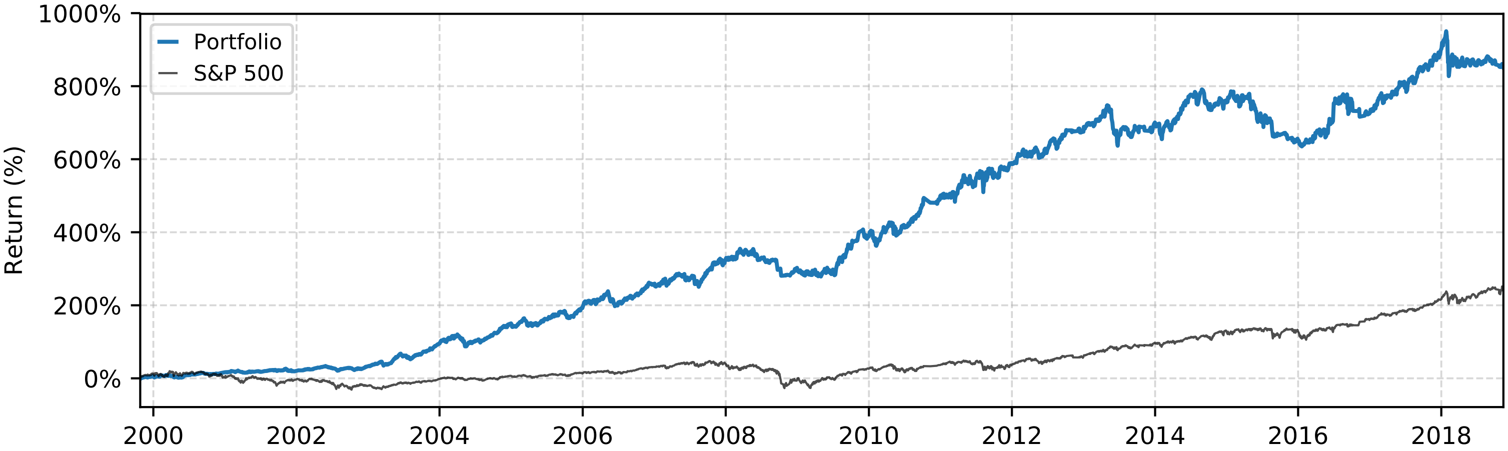


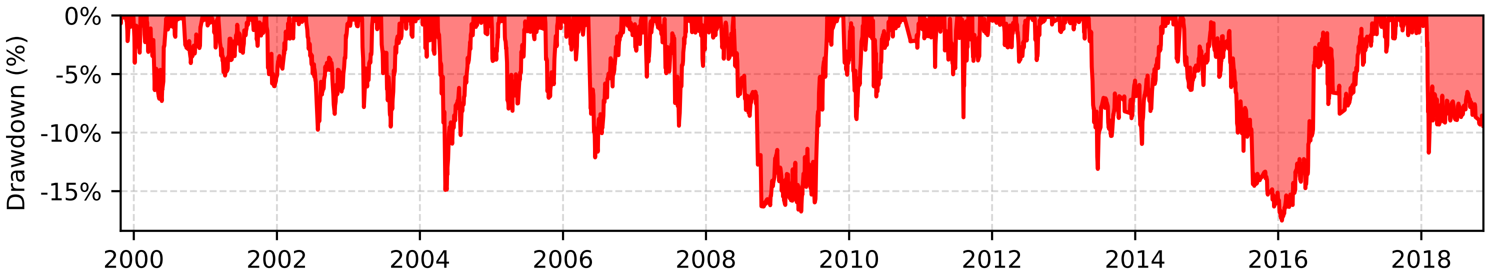
Yearly Returns (%)

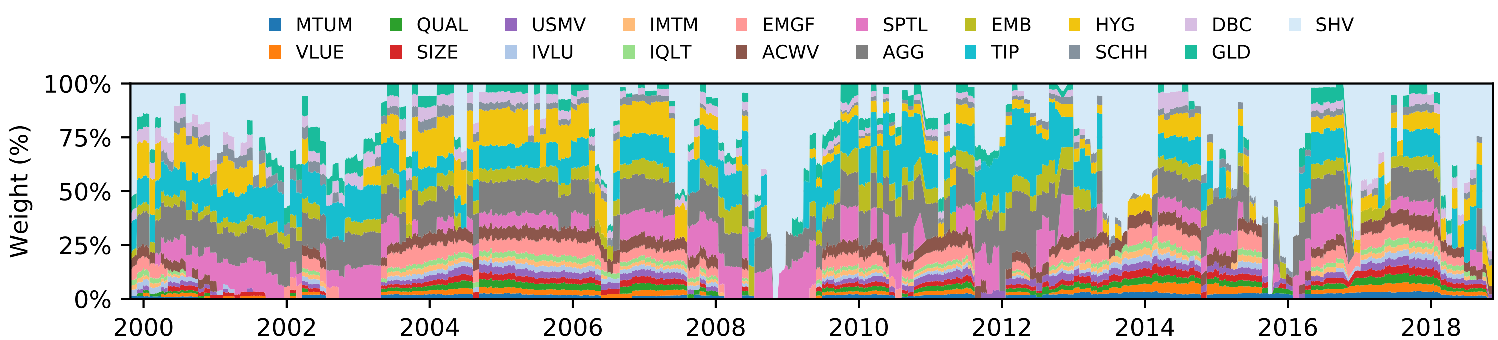


Tearsheet #29

Portfolio Tearsheet: Adventurous







Overview

Portfolio Code:	RP 2.5
Start Date:	1999-10-26
End Date:	2018-11-14
Rebalanced:	Monthly
Trend Following:	200 SMA
Weighting:	RP 200

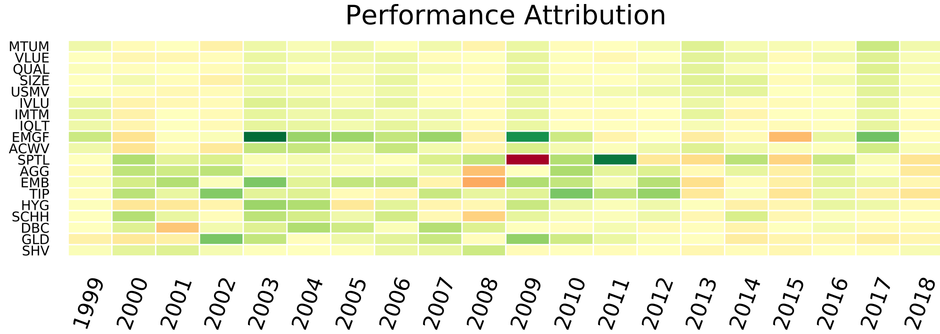
Statistics

Total Return:	851.59%
CAGR:	13.94%
Annual Volatility:	9.89%
Sharpe:	1.28
Max Drawdown:	-17.51%
Sortino:	1.83

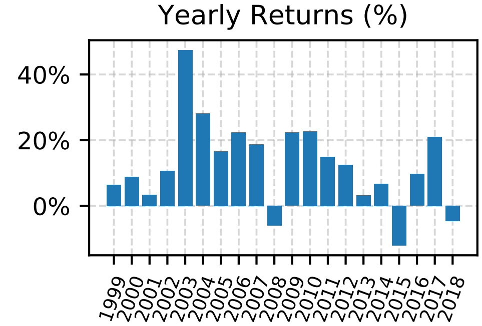
Statistics #2

$VaR_{99\%}$:	-1.74%
$CVaR_{99\%}$:	-2.24%
Beta:	0.14
Alpha:	12.54%
R-Squared:	7.43%
Treynor:	0.87

Performance Attribution

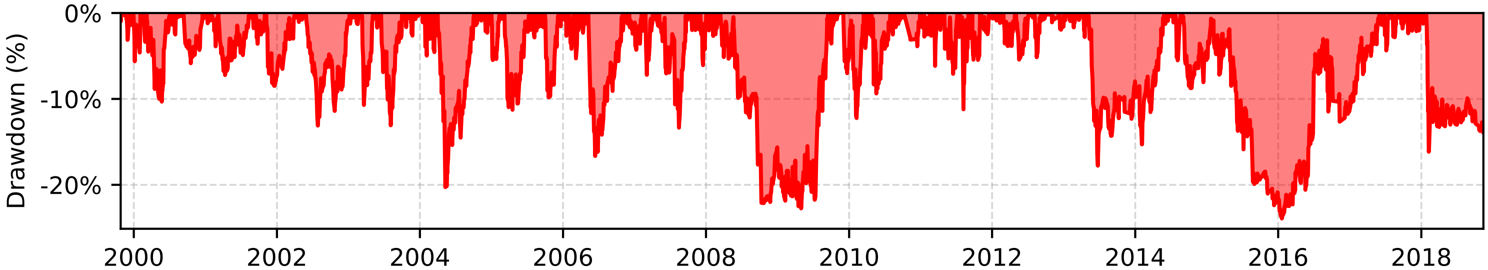


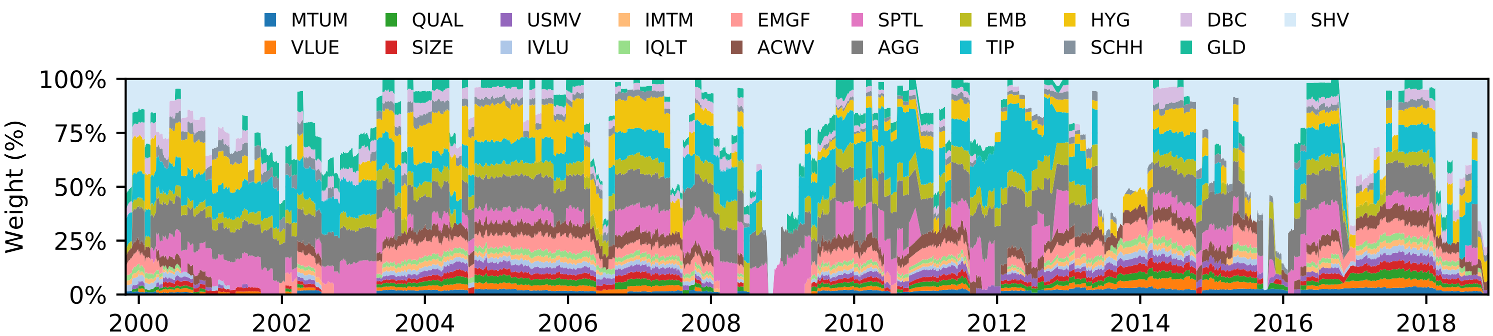
Yearly Returns (%)



Tearsheet #30

Portfolio Tearsheet: Aggressive





Overview

Portfolio Code:	RP 3.5x
Start Date:	1999-10-26
End Date:	2018-11-14
Rebalanced:	Monthly
Trend Following:	200 SMA
Weighting:	RP 200

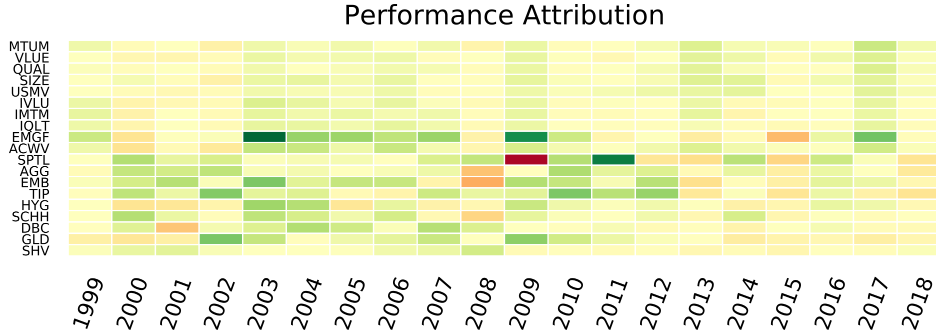
Statistics

Total Return:	1883.39%
CAGR:	19.25%
Annual Volatility:	13.80%
Sharpe:	1.29
Max Drawdown:	-23.92%
Sortino:	1.85

Statistics #2

$VaR_{99\%}$:	-2.42%
$CVaR_{99\%}$:	-3.11%
Beta:	0.20
Alpha:	17.26%
R-Squared:	7.06%
Treynor:	0.91

Performance Attribution



Yearly Returns (%)