

A Practitioners analysis of the overnight effect

Kyle Balkissoon

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Agenda

- ▶ What is the overnight effect?
- ▶ Statistical Properties
- ▶ A simple strategy to take advantage of it
- ▶ Results and Conclusion

Overnight Effect Defined

- ▶ Buy at the Close, Sell at the open
- ▶ Assume 1bp of trading cost each way (2bps roundtrip)
- ▶ IntraDay Effect is to buy at the Open and sell at the close

Sharpe Analysis of the effect

	BuyandHold	Overnight	Intraday
XLF	-0.07684	0.1331	-0.4741
XLE	0.1131	-0.1151	-0.199
XLU	0.3519	0.2838	-0.3567
XLK	0.3784	0.4227	-0.4082
XLB	0.2021	0.2716	-0.3932
XLP	0.7242	0.1746	-0.1451
XLY	0.3988	0.4399	-0.3377
XLI	0.3086	0.2863	-0.3678
XLV	0.565	0.325	-0.2494

Drawdown Analysis of the effect

	BuyandHold	Overnight	Intraday
XLF	0.8269	0.3495	0.8323
XLE	0.5736	0.352	0.6283
XLU	0.4648	0.2219	0.6411
XLK	0.5304	0.2948	0.6634
XLB	0.5982	0.3621	0.6923
XLP	0.3239	0.1727	0.571
XLY	0.5905	0.189	0.6662
XLI	0.6226	0.3445	0.6268
XLV	0.3917	0.2195	0.4564

Volatility Analysis of the effect

	BuyandHold	Overnight	Intraday
XLF	0.02328	0.01339	0.01938
XLE	0.01951	0.01031	0.01562
XLU	0.01198	0.006205	0.01068
XLK	0.01371	0.008576	0.01154
XLB	0.01684	0.00961	0.01371
XLP	0.009034	0.006716	0.008399
XLY	0.01474	0.0091	0.01319
XLI	0.01455	0.009019	0.01187
XLV	0.01122	0.006811	0.009929

KS test of the effect

	Statistic	P.Value
XLF	0.1395	0
XLE	0.1001	0.0000000001089
XLU	0.07207	0.000009468
XLK	0.08355	0.0000001395
XLB	0.1162	0.0000000000000292
XLP	0.07804	0.000001143
XLY	0.1056	0.000000000007585
XLI	0.106	0.000000000006056
XLV	0.06616	0.00006519

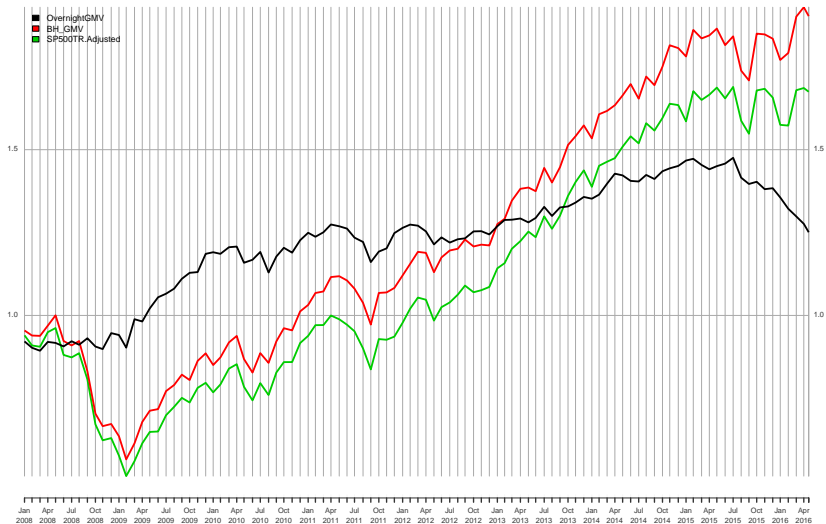
Archetype Minimum Variance

- ▶ Minimize Variance
- ▶ 9 SPDRs
- ▶ Position limit of 20% and Long Only
- ▶ Rebalanced Monthly

Sample Strategy GMV

Performance of GMV using Buy and HOLD and Overnight Only and SP500 TR

2008-01-31 / 2016-05-18



SharpeRatio

	ON	BH	SP500
Annualized Sharpe Ratio ($R_f=0\%$)	0.3312	0.5245	0.3886

Variance

	ON	BH	SP500
Annualized Standard Deviation	0.08138	0.1514	0.1626