correlation of stocks and SP500

The CORR Procedure

| 1 With Variables:	sprtrn
19 Variables:	LitVol orderVol Hidden TradesForHidden hiddenVol tradeVolForHidden Cancels LitTrades OddLots TradesForOddLots oddLotVol tradeVolForOddLots Cancel_to_Trade Trade_to_Order_Volume Hidden_Rate Hidden_Volume Oddlot_Rate Oddlot_Volume sprtrn

	Pearson Correlation Coefficients **Prob > |r| under H0: Rho=0** **Number of Observations**						
	LitVol	**orderVol**	**Hidden**	**TradesForHidden**	**hiddenVol**	**tradeVolForHidden**	**Cancels**	**LitTrades**
sprtrn	-0.08047 0.0272 753	-0.20925 <.0001 753	-0.07009 0.0545 753	-0.06243 0.0869 753	-0.06658 0.0679 753	-0.07042 0.0534 753	-0.21152 <.0001 753	-0.06108 0.0940 753

	Pearson Correlation Coefficients **Prob > |r| under H0: Rho=0** **Number of Observations**				
	OddLots	**TradesForOddLots**	**oddLotVol**	**tradeVolForOddLots**	**Cancel_to_Trade**
sprtrn	-0.02064 0.5717 753	-0.06744 0.0644 753	-0.02981 0.4140 753	-0.07407 0.0422 753	-0.22055 <.0001 753

	Pearson Correlation Coefficients **Prob > |r| under H0: Rho=0** **Number of Observations**					
	Trade_to_Order_Volume	**Hidden_Rate**	**Hidden_Volume**	**Oddlot_Rate**	**Oddlot_Volume**	**sprtrn**
sprtrn	0.20160 <.0001 753	-0.02632 0.4708 753	-0.01052 0.7733 753	0.01911 0.6006 753	0.01182 0.7460 753	1.00000 754

   The data above show the correlation and p-value of stock variables (metrics) with SP500 returns . For those whose p-value is greater than 0.05, it means the result is not statistically significant. Those data can be ignored.
   For stocks, statistically significant data are LitVol, OrderVol, Cancels, Oddlots, TradeVolForOddlots, CancelToTrade, TradeToOrderVol. However, none of these variables (or metrics) has a strong correlation with SP500 returns. The largest positive correlation coefficient is approximately 0.2 in TradeToOrderVol. Relatively large negative correlation coefficients are -0.21 in OrderVol, -0.21 in Cancels and -0.22 in CancelToTrade.

correlation of etfs and SP500

The CORR Procedure

1 With Variables:	sprtrn			
19 Variables:	LitVol orderVol Hidden TradesForHidden hiddenVol tradeVolForHidden Cancels LitTrades OddLots TradesForOddLots oddLotVol tradeVolForOddLots Cancel_to_Trade Trade_to_Order_Volume Hidden_Rate Hidden_Volume Oddlot_Rate Oddlot_Volume sprtrn			

Pearson Correlation Coefficients Prob > |r| under H0: Rho=0 Number of Observations								
	LitVol	**orderVol**	**Hidden**	**TradesForHidden**	**hiddenVol**	**tradeVolForHidden**	**Cancels**	**LitTrades**
sprtrn	-0.09092 0.0126 753	-0.14199 <.0001 753	-0.07108 0.0512 753	-0.12834 0.0004 753	-0.06418 0.0784 753	-0.10162 0.0053 753	-0.20592 <.0001 753	-0.12722 0.0005 753

Pearson Correlation Coefficients Prob > |r| under H0: Rho=0 Number of Observations					
	OddLots	**TradesForOddLots**	**oddLotVol**	**tradeVolForOddLots**	**Cancel_to_Trade**
sprtrn	-0.16493 <.0001 753	-0.12666 0.0005 753	-0.14498 <.0001 753	-0.10205 0.0051 753	-0.12364 0.0007 753

Pearson Correlation Coefficients Prob > |r| under H0: Rho=0 Number of Observations					
	Trade_to_Order_Volume	**Hidden_Rate**	**Hidden_Volume**	**Oddlot_Rate**	**Oddlot_Volume**	**sprtrn**
sprtrn	0.11000 0.0025 753	0.01513 0.6785 753	0.01250 0.7319 753	-0.09920 0.0064 753	-0.09955 0.0063 753	1.00000 754

For etfs, there are more statistically significant variables (metrics) including LitVol, OrderVol, TradesForHidden, TradeVolForHidden, Cancels, LitTrades, Oddlots, TradesForOddlots, OddlotVol, TradeVolForOddlots, CancelToTrade, TradeToOrderVol, OddlotRate, OddlotVol. The largest positive correlation coefficient is 0.11 in TradeToOrderVol, which is the same as stocks. The largest negative correlation coefficient is -0.21 in Cancels.
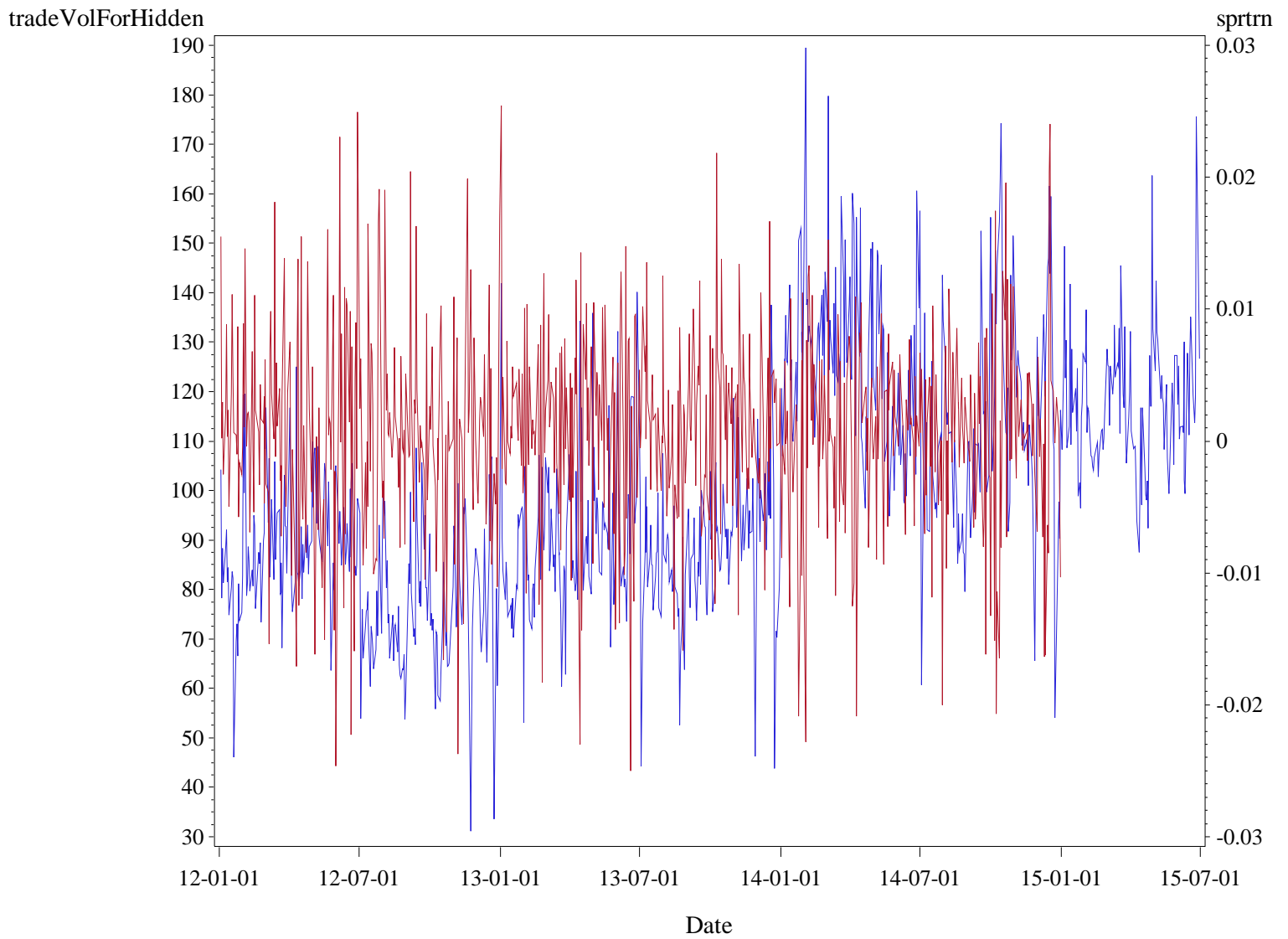
stock_median and SP500_return
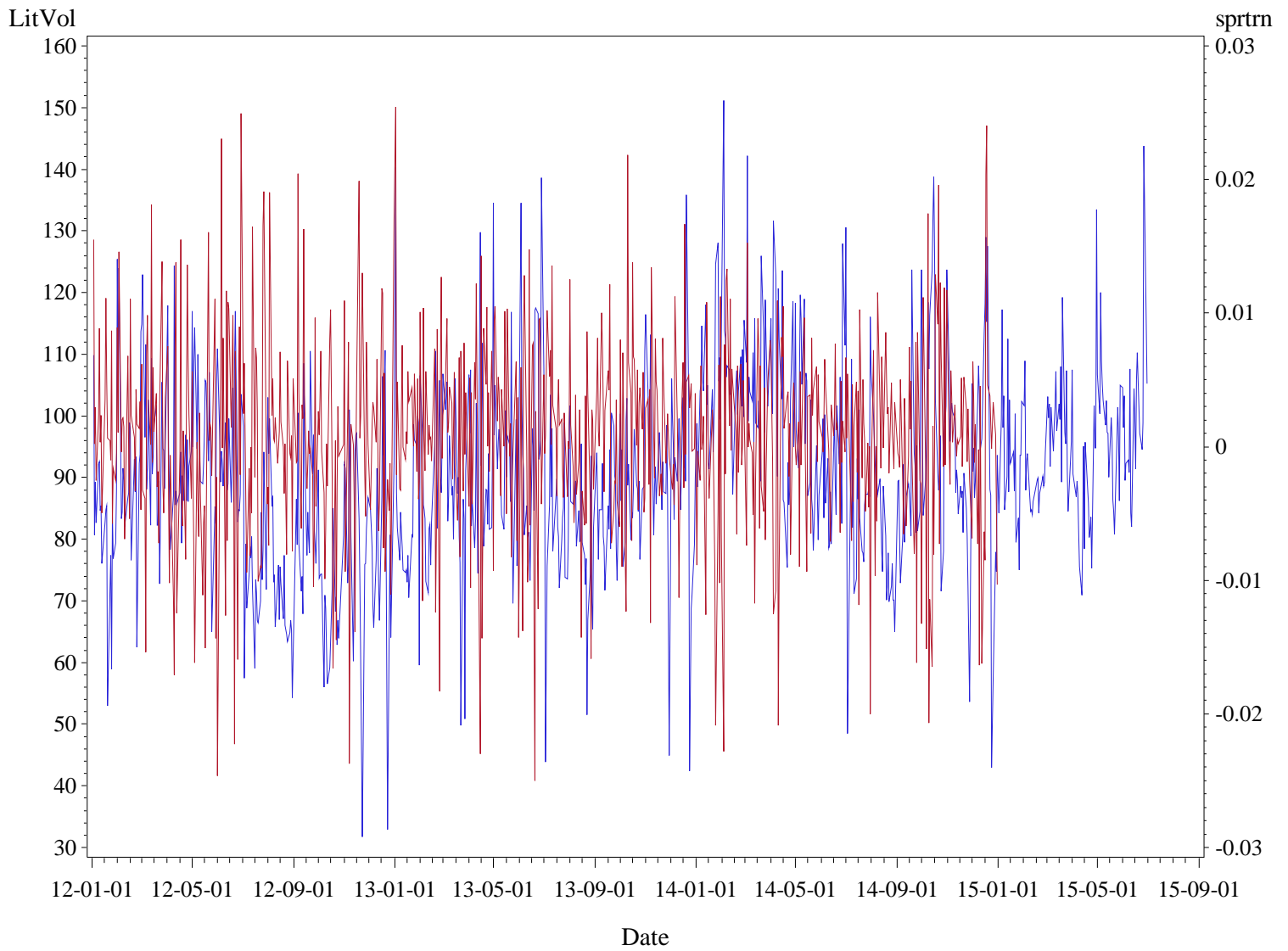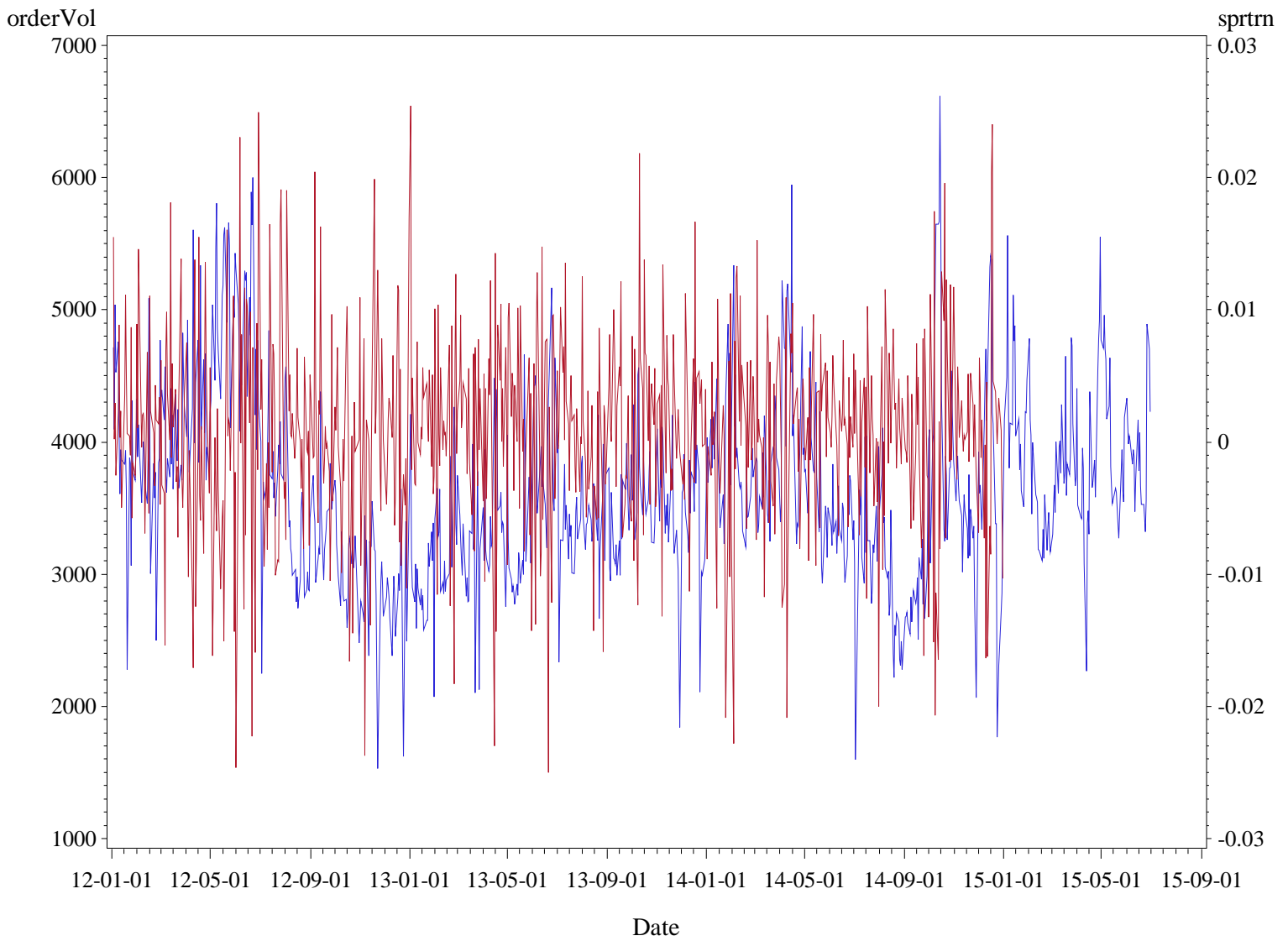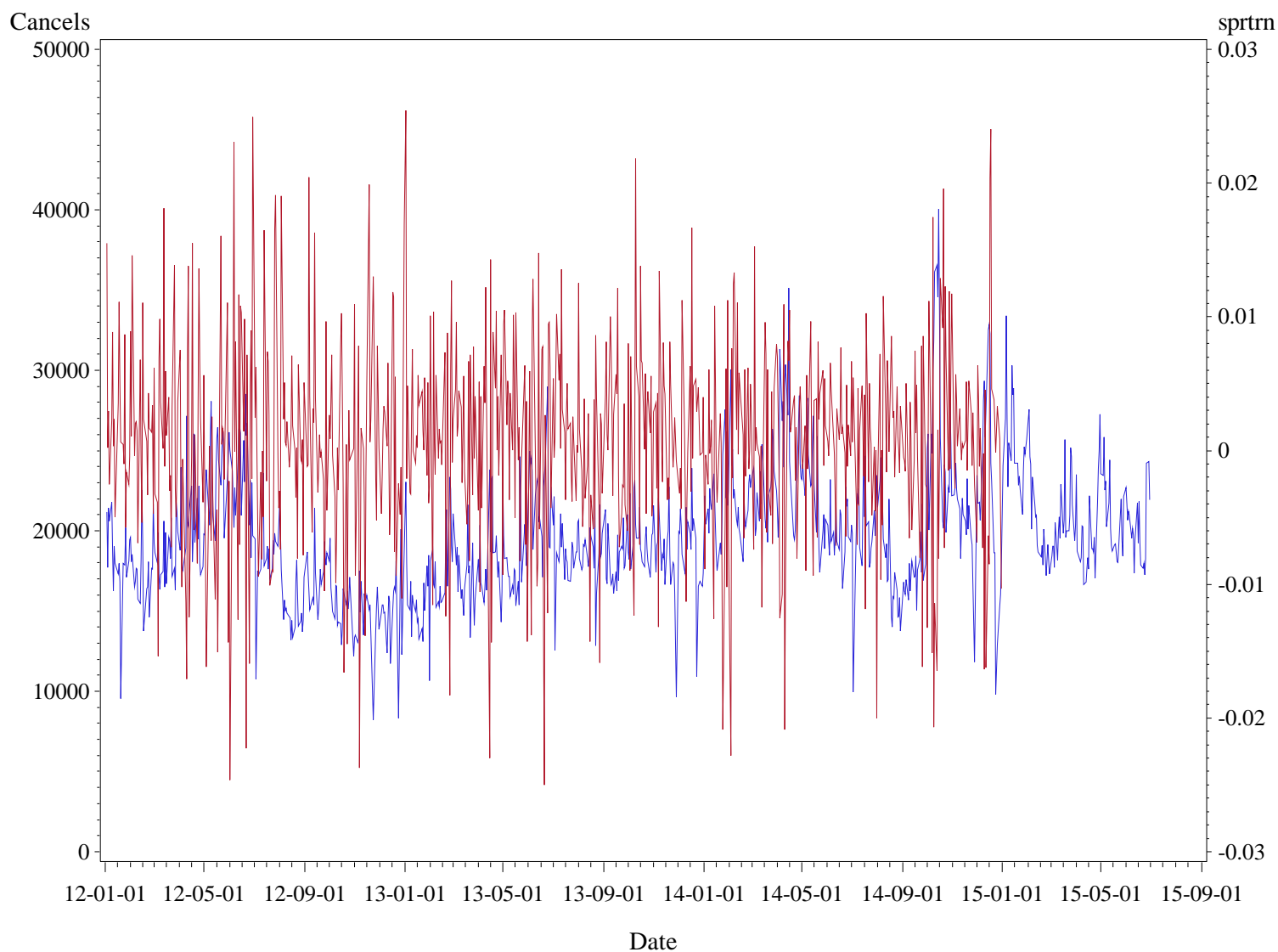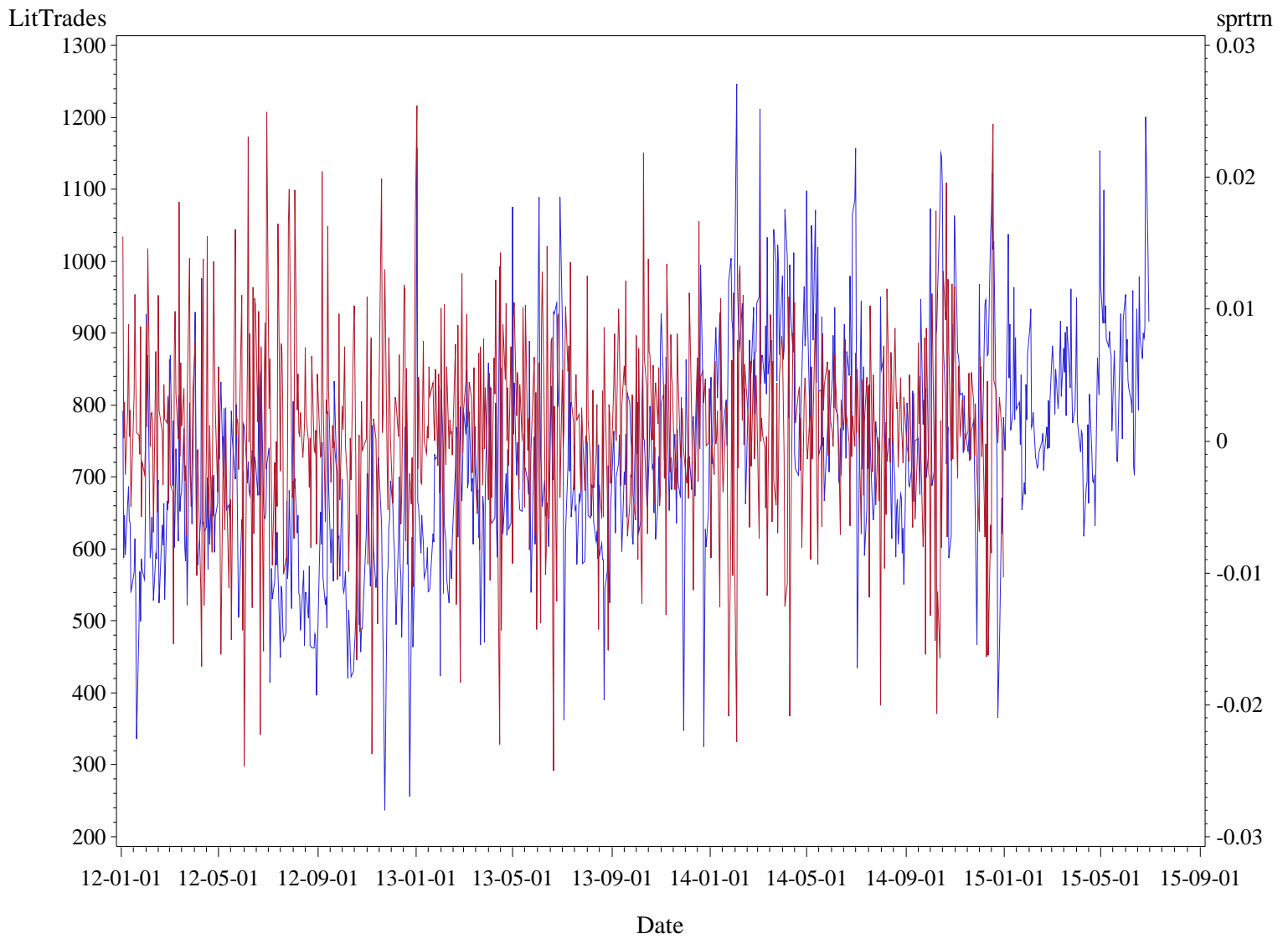
stock_median and SP500_return

stock_median and SP500_return

stock_median and SP500_return

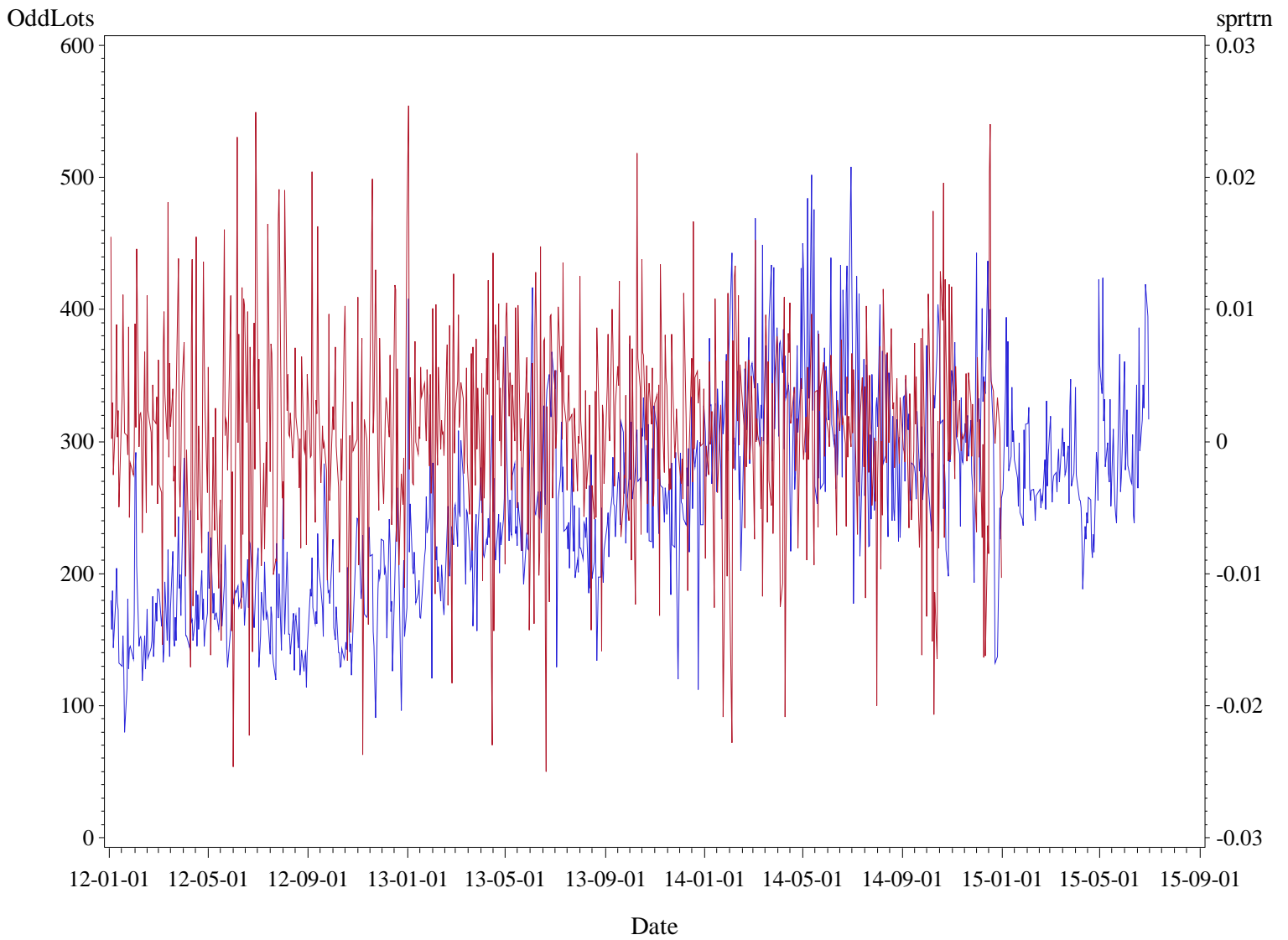**stock_median and SP500_return**

Date
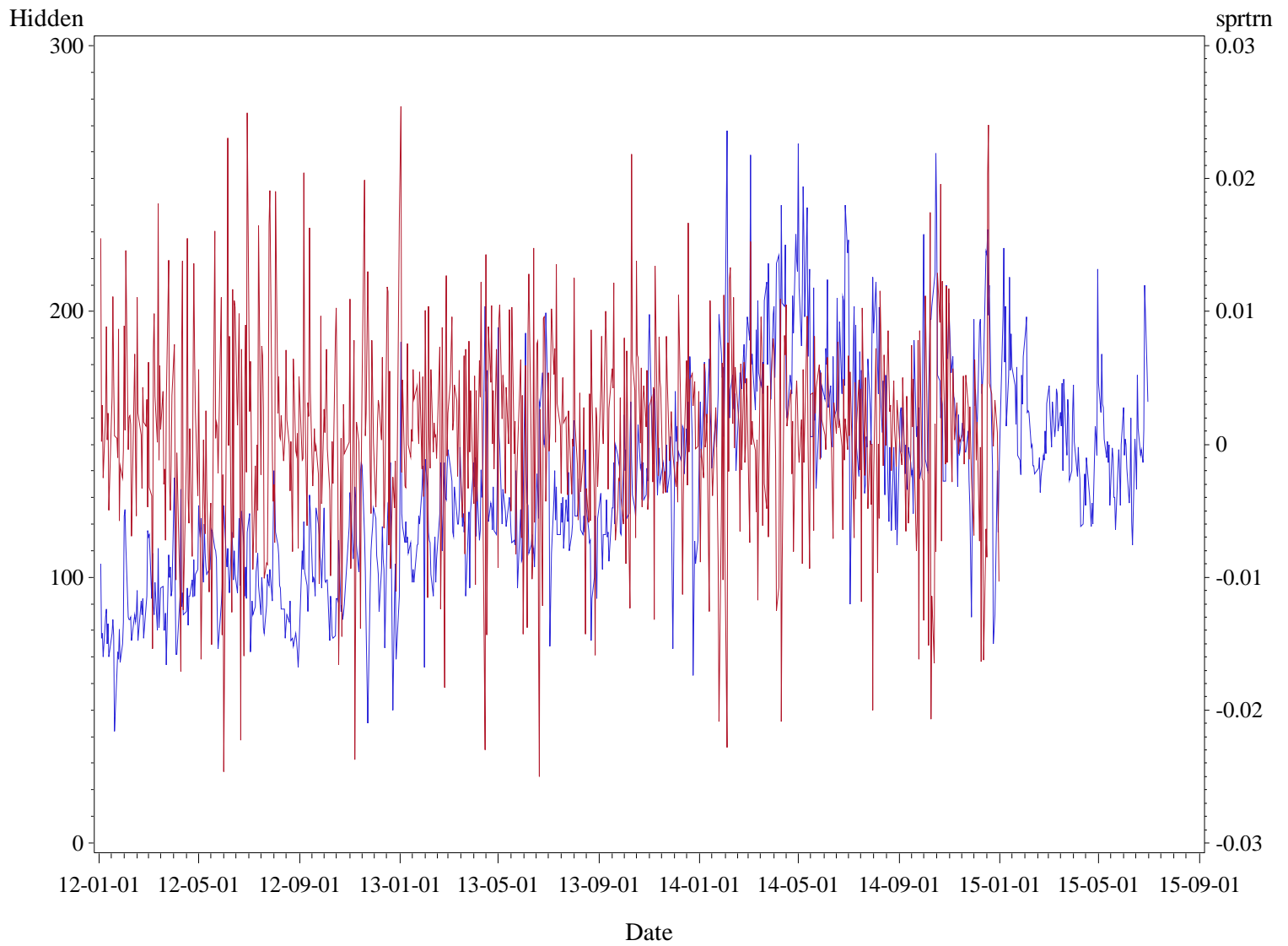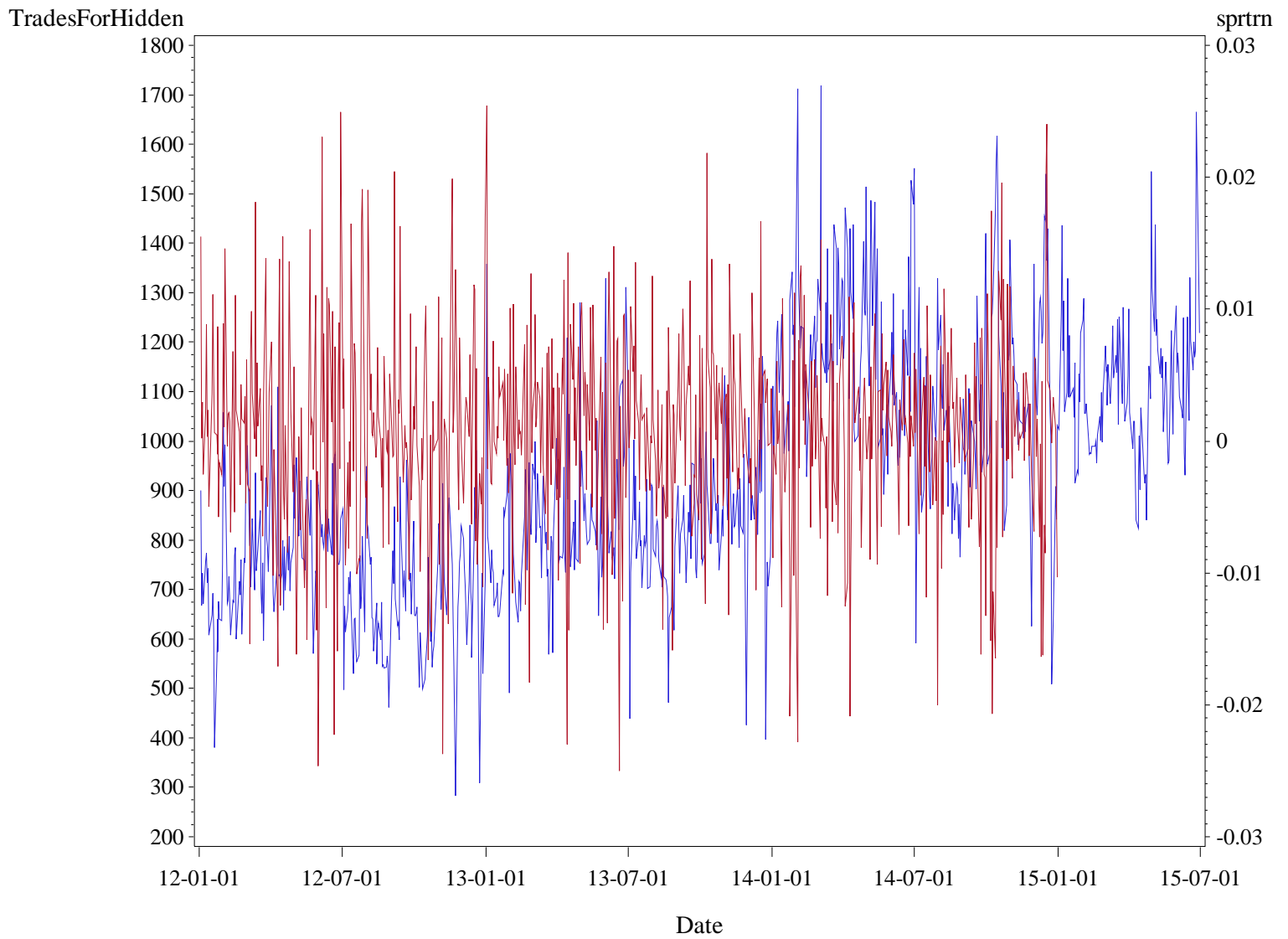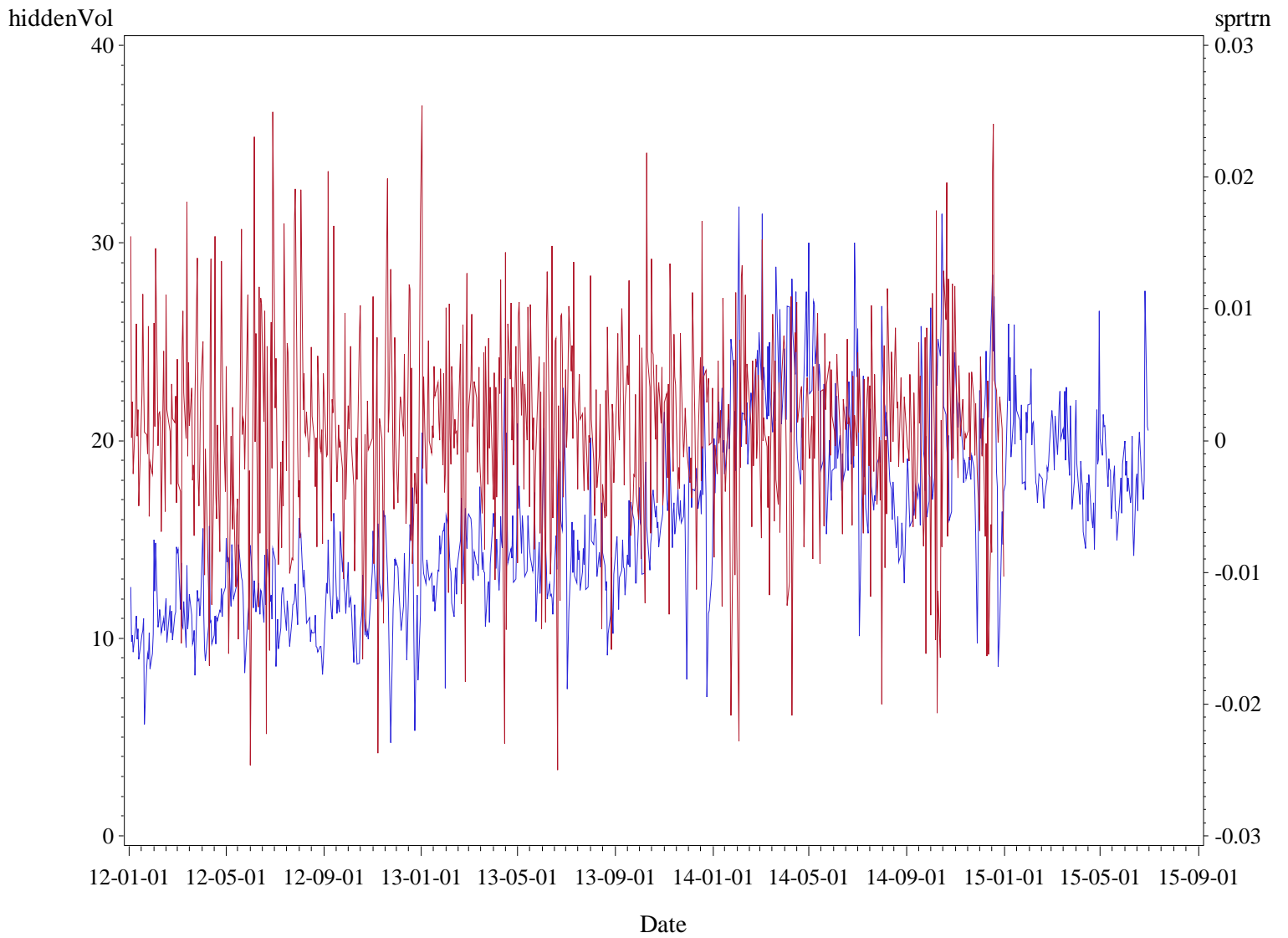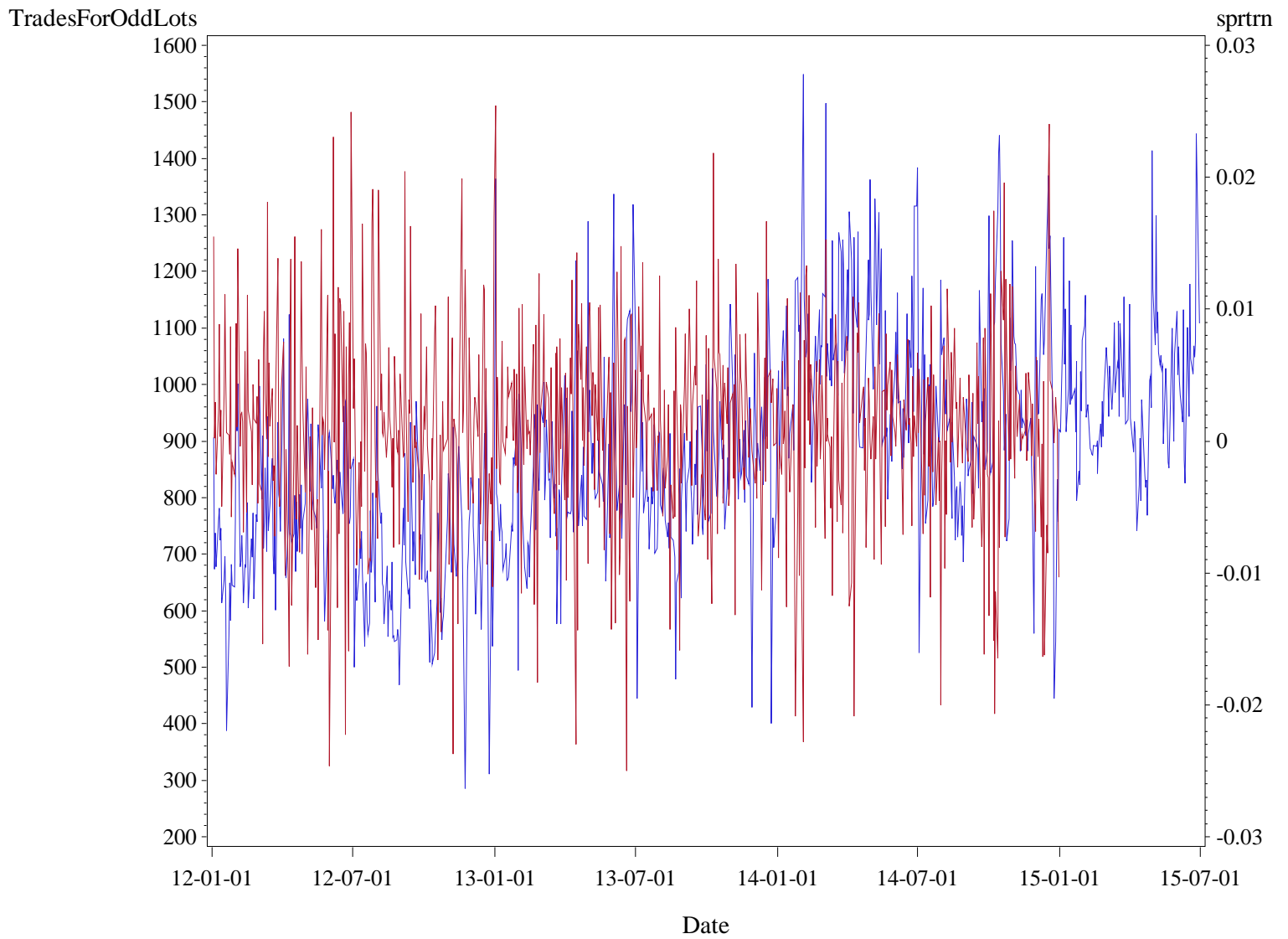
stock_median and SP500_return
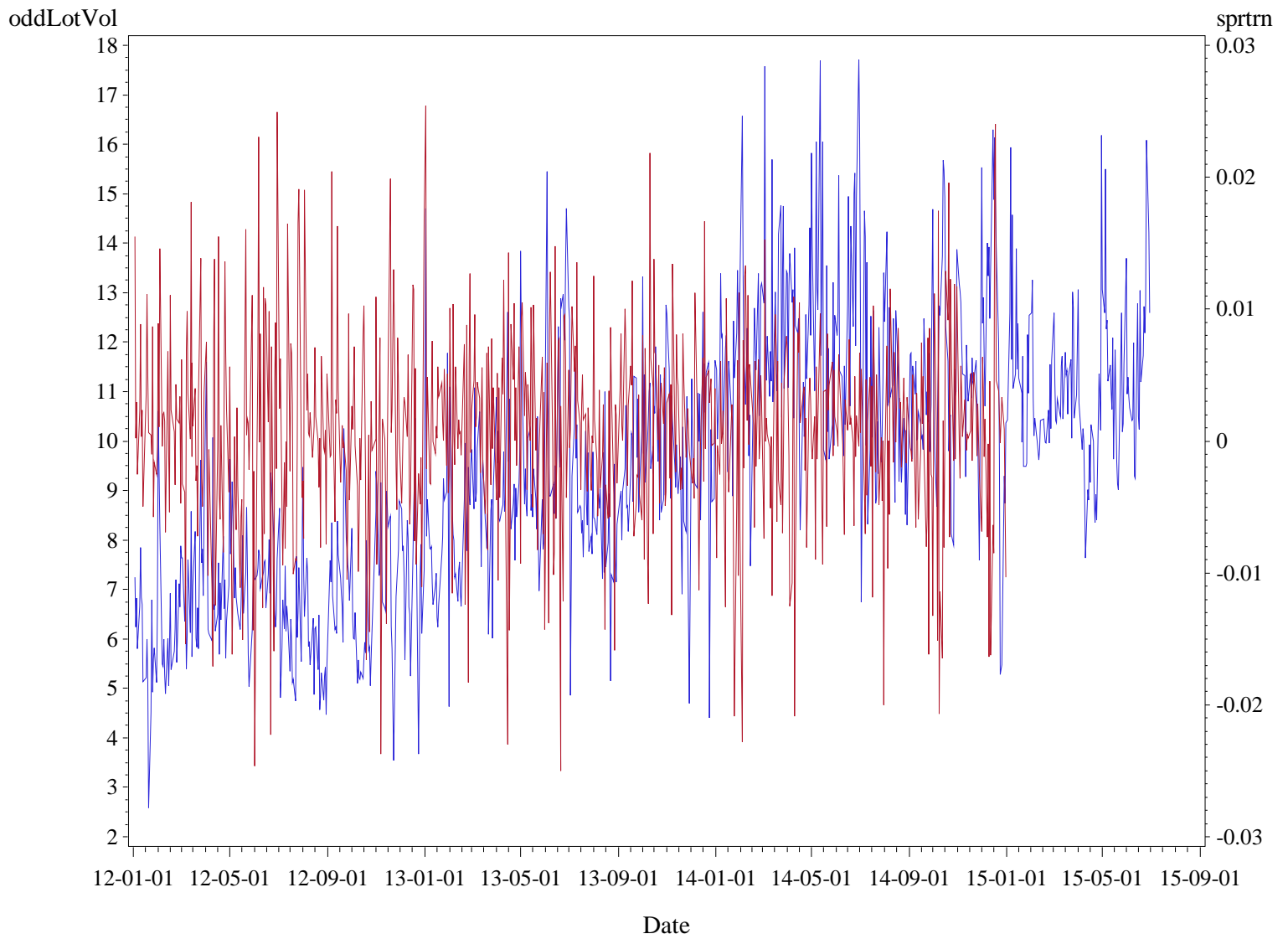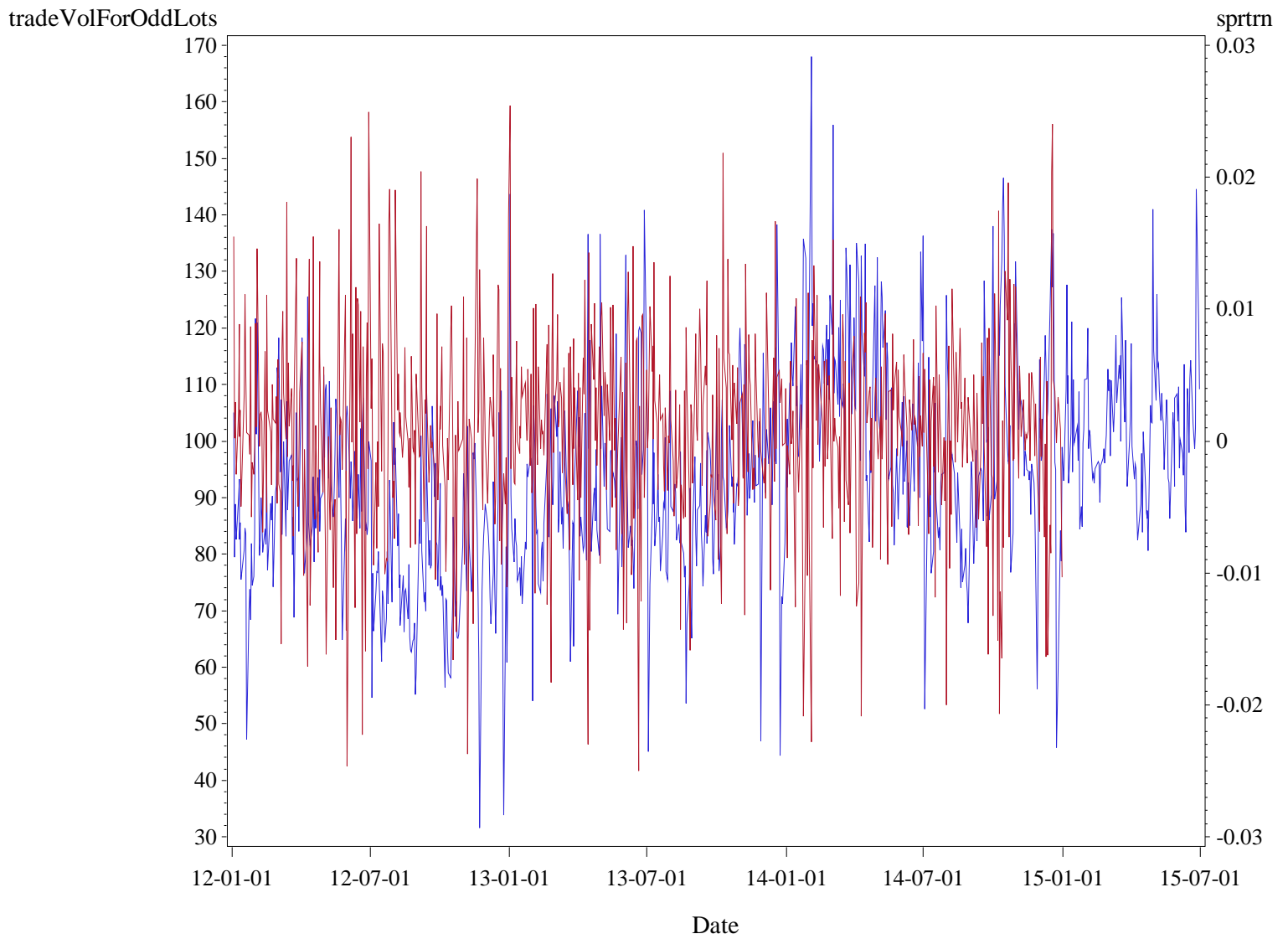
stock_median and SP500_return

In this chart, there is a trend that when cancels decreases, sp500 returns will increase. However, this trend is not as clearly as it was since 2014.
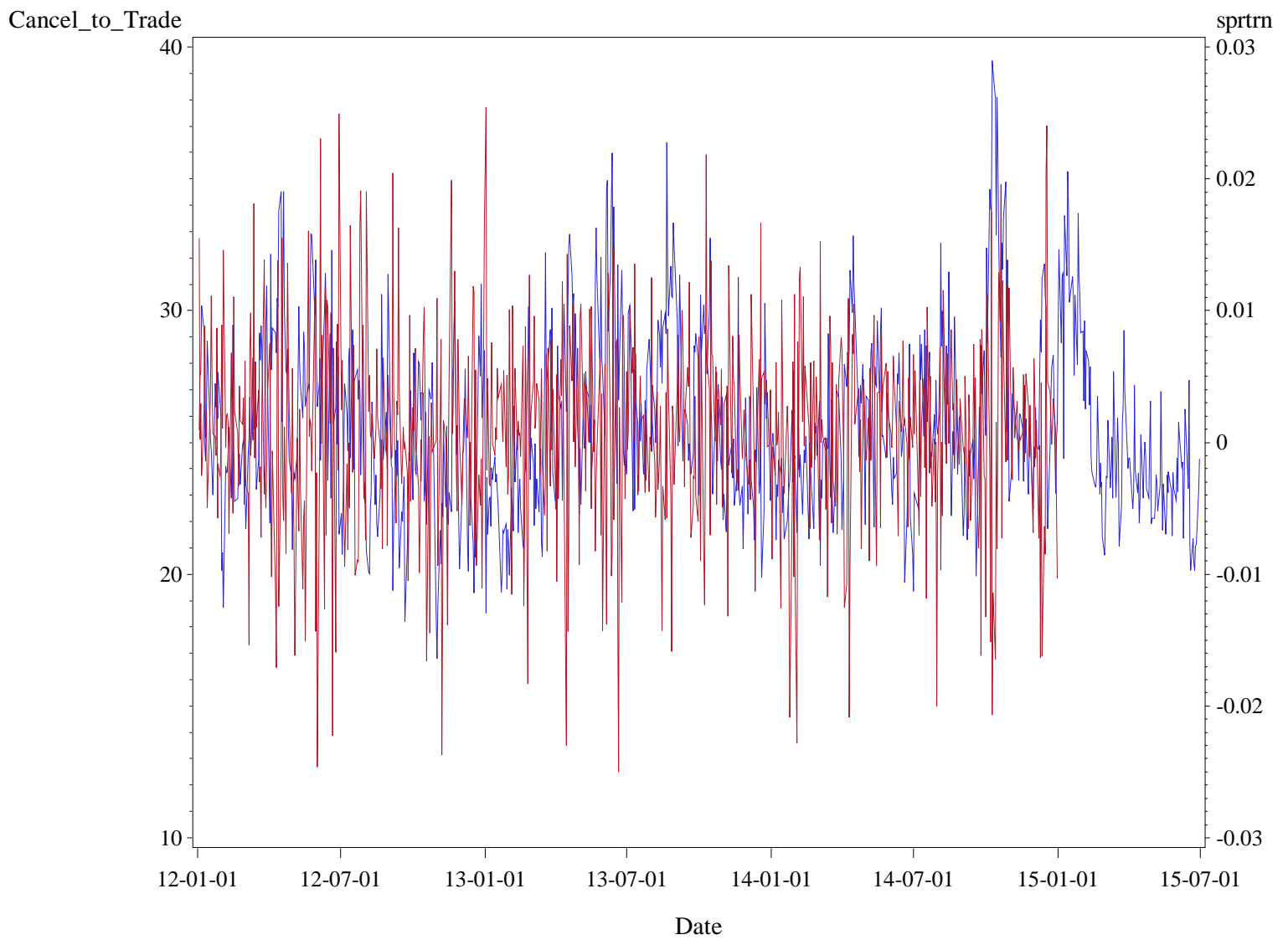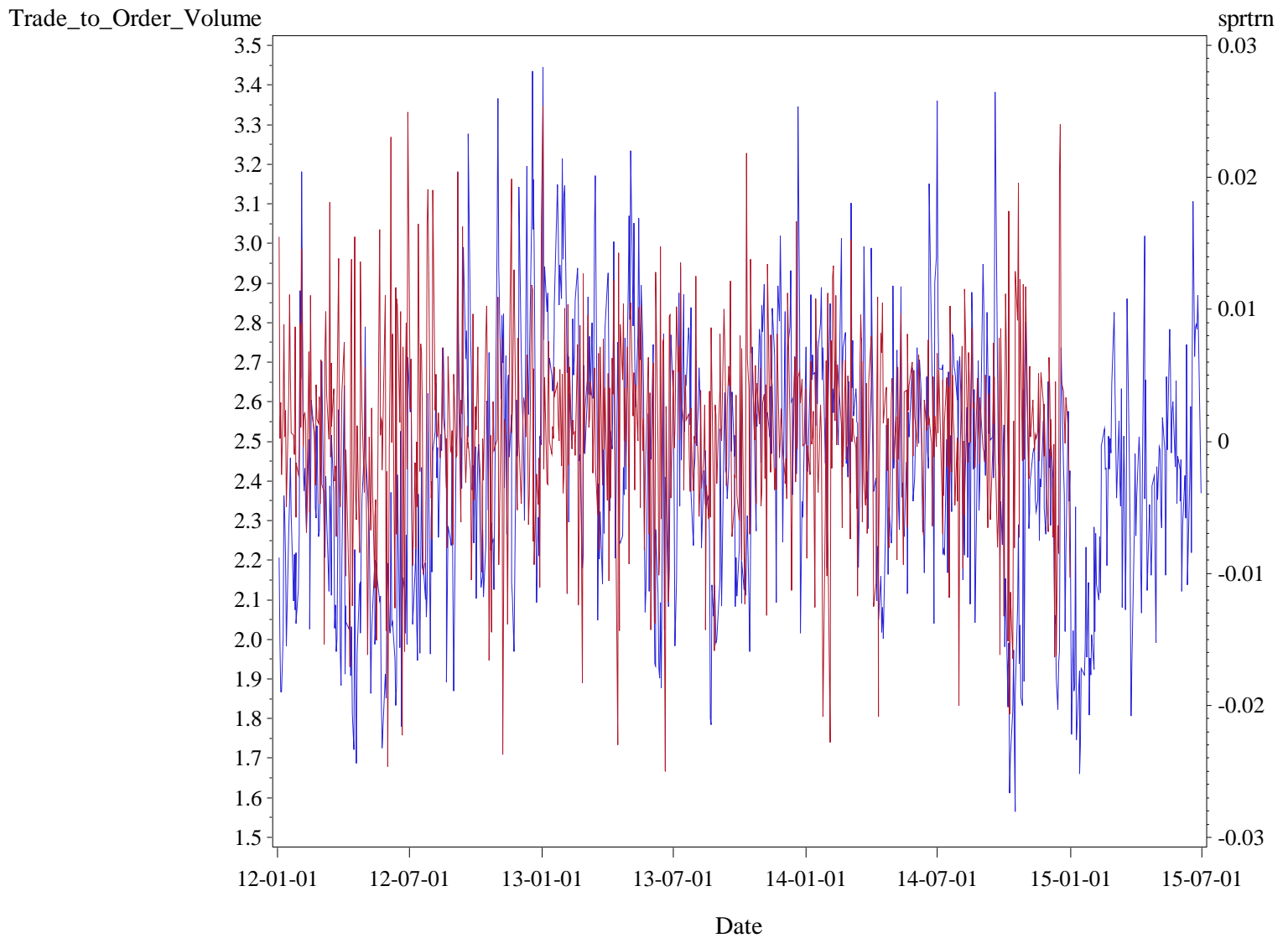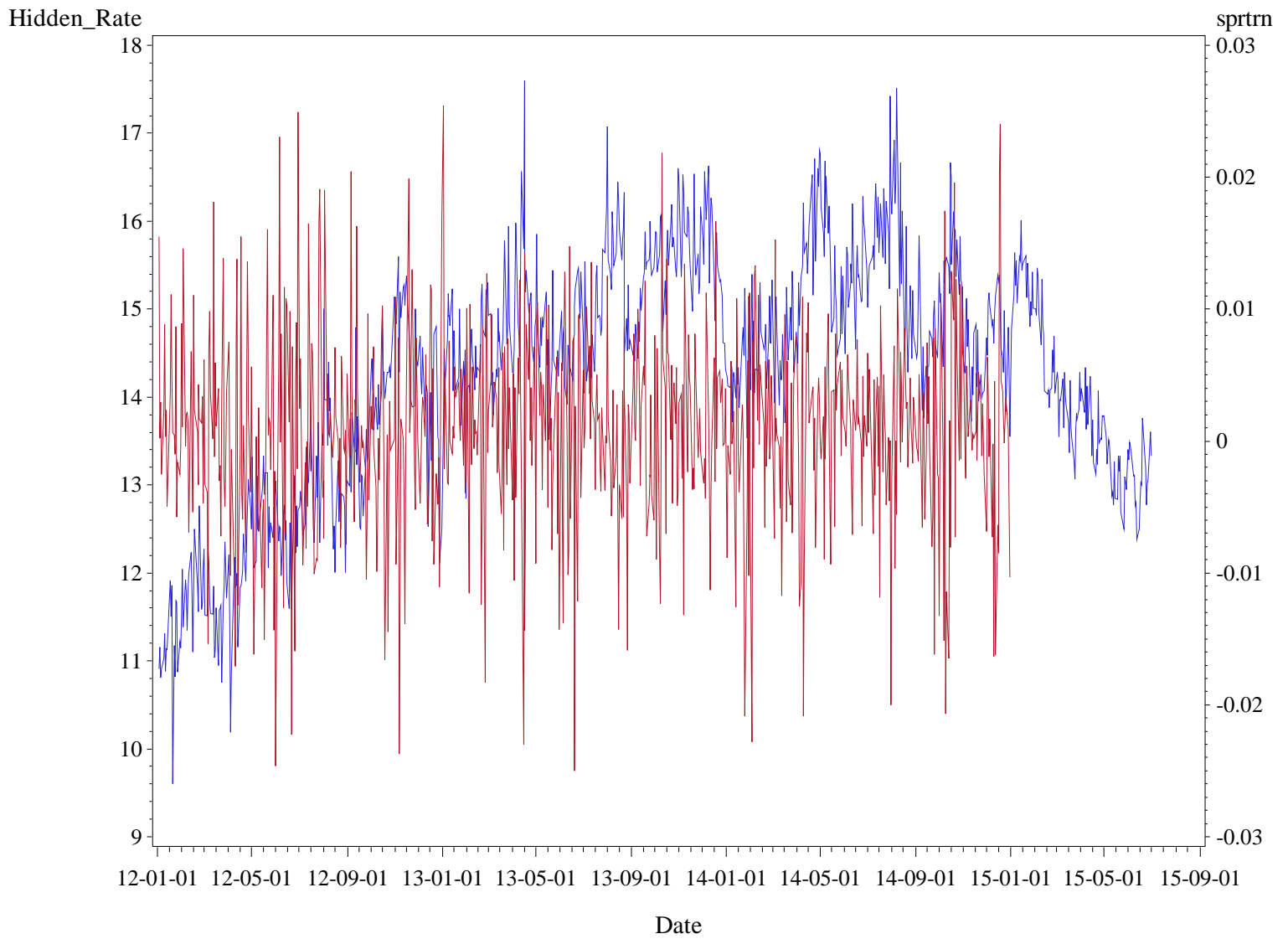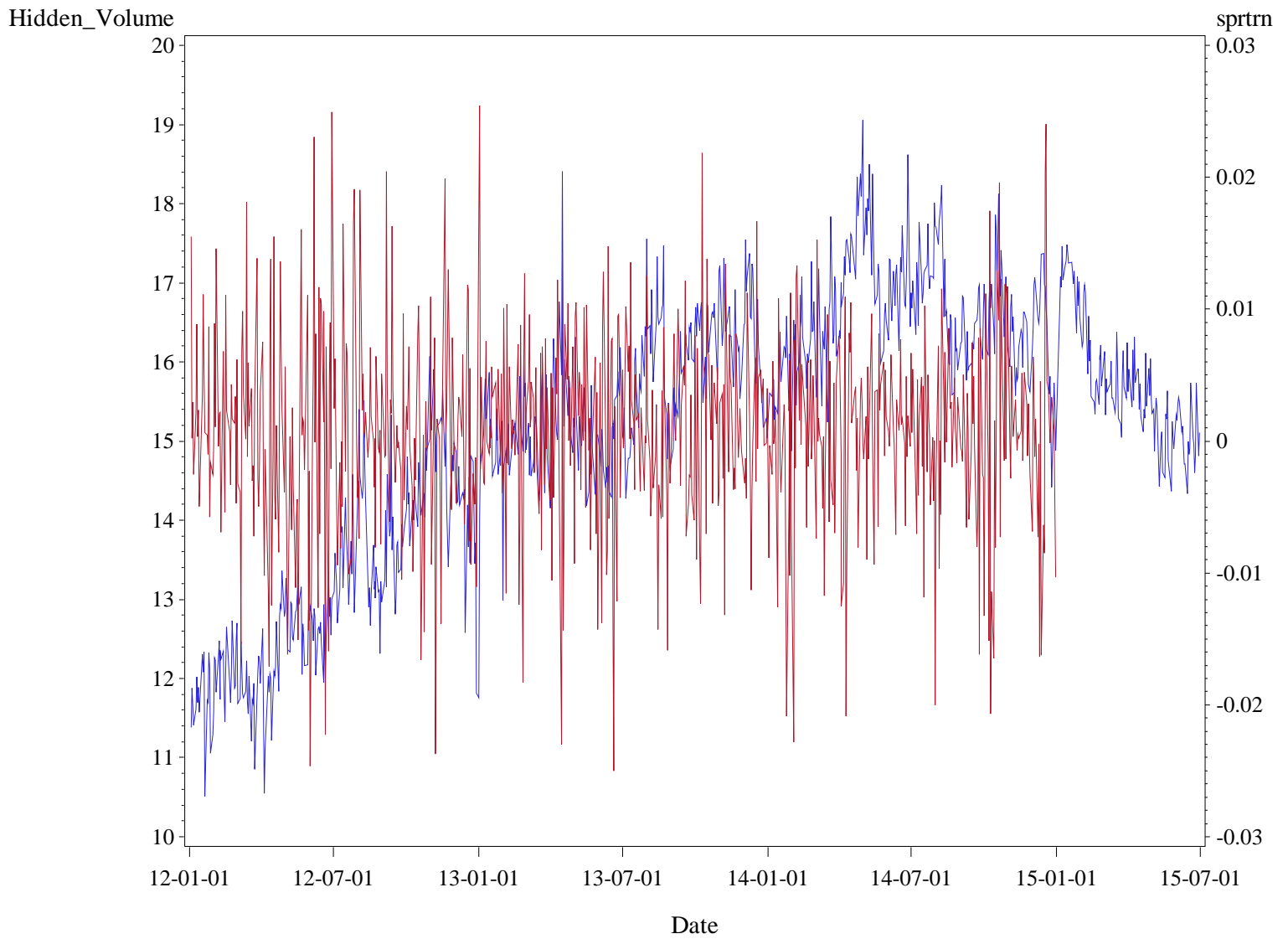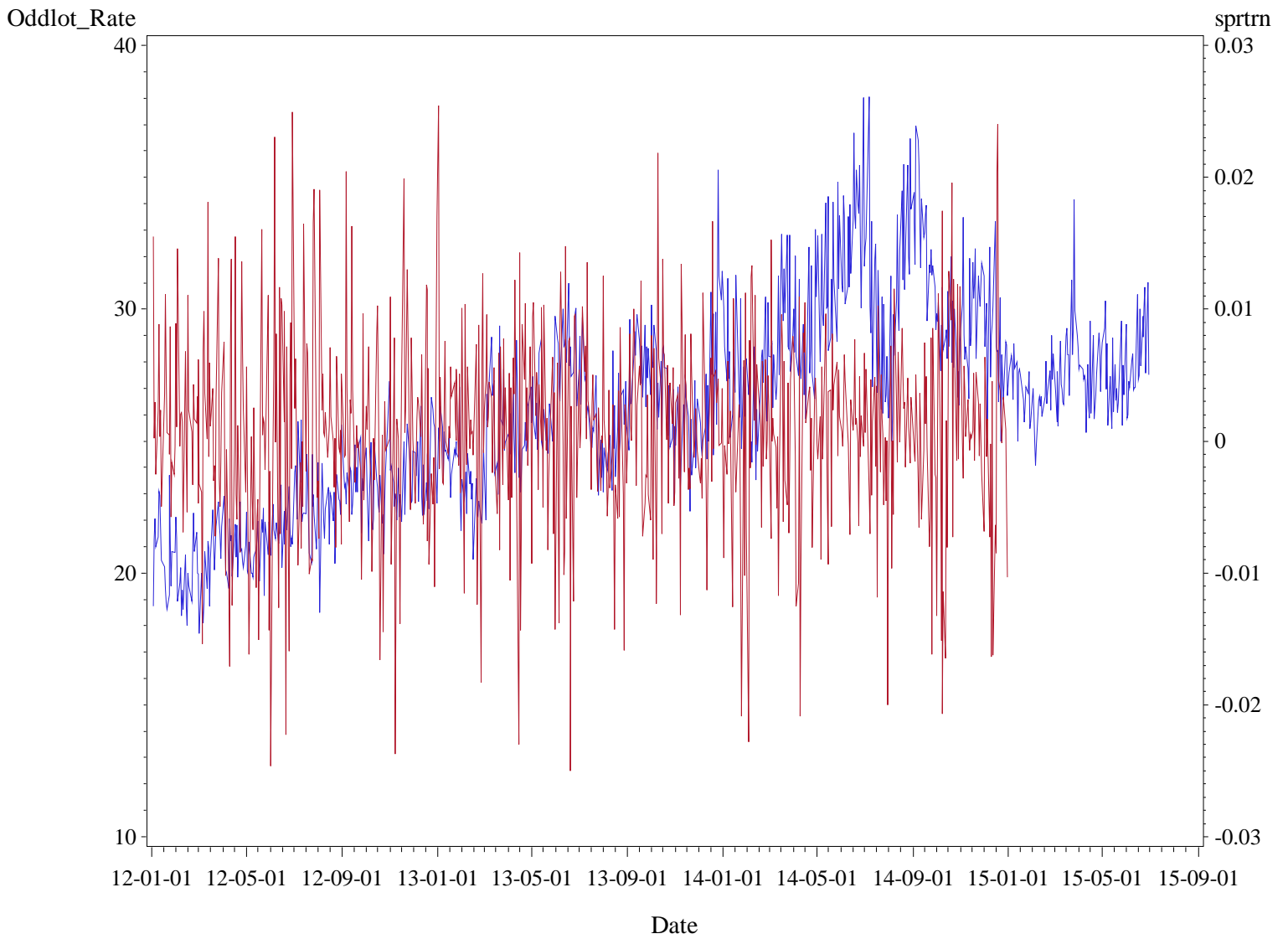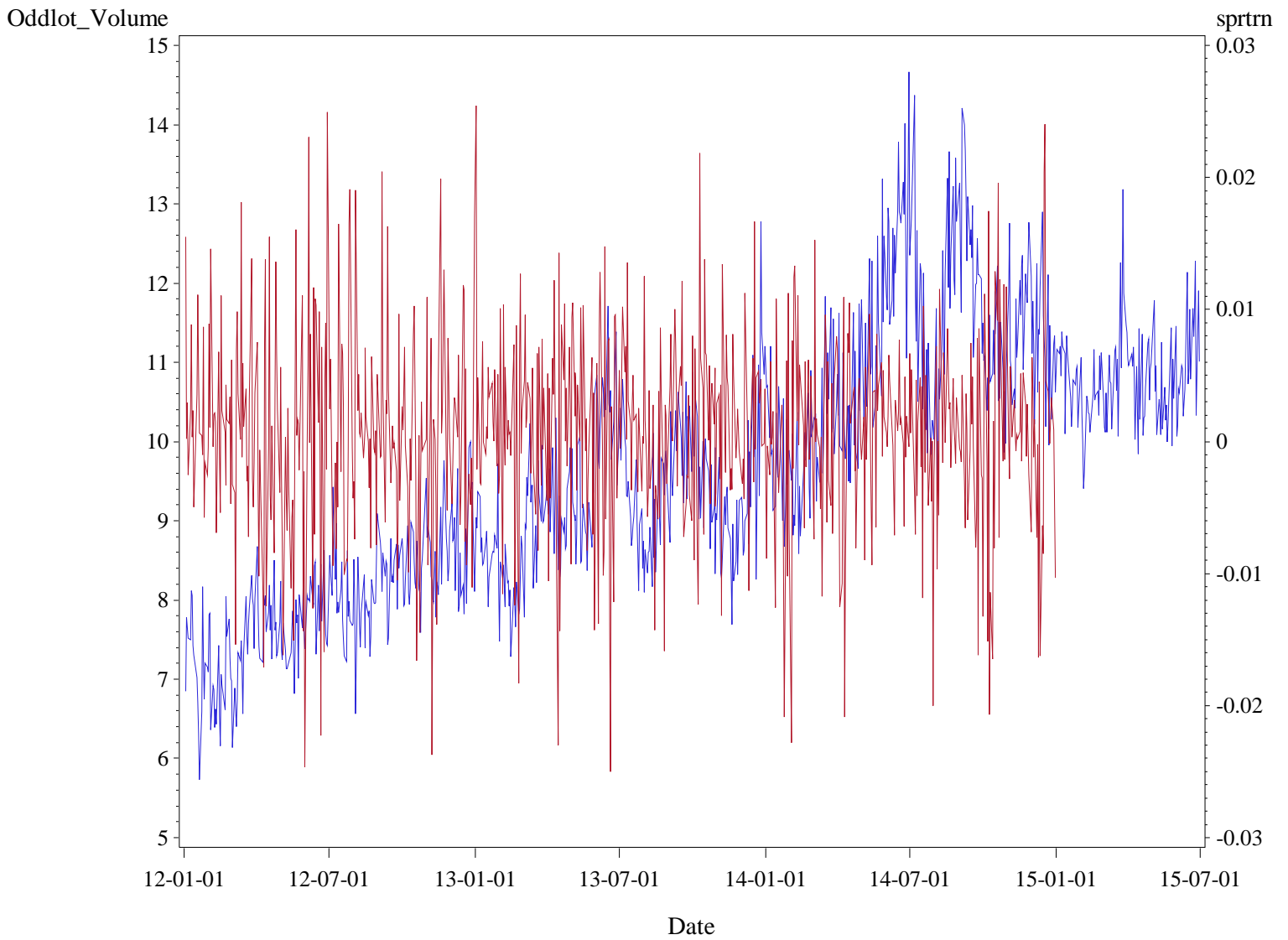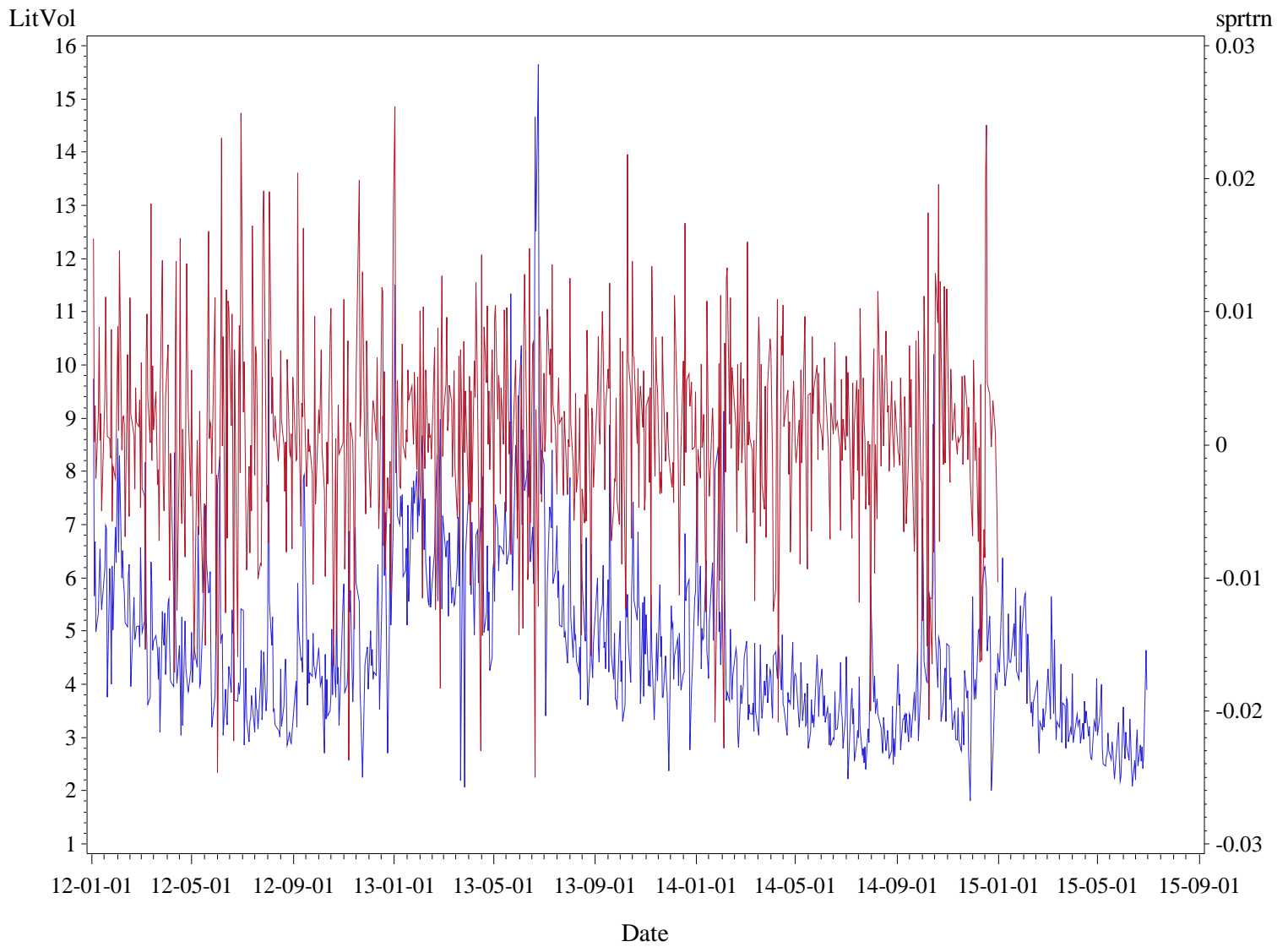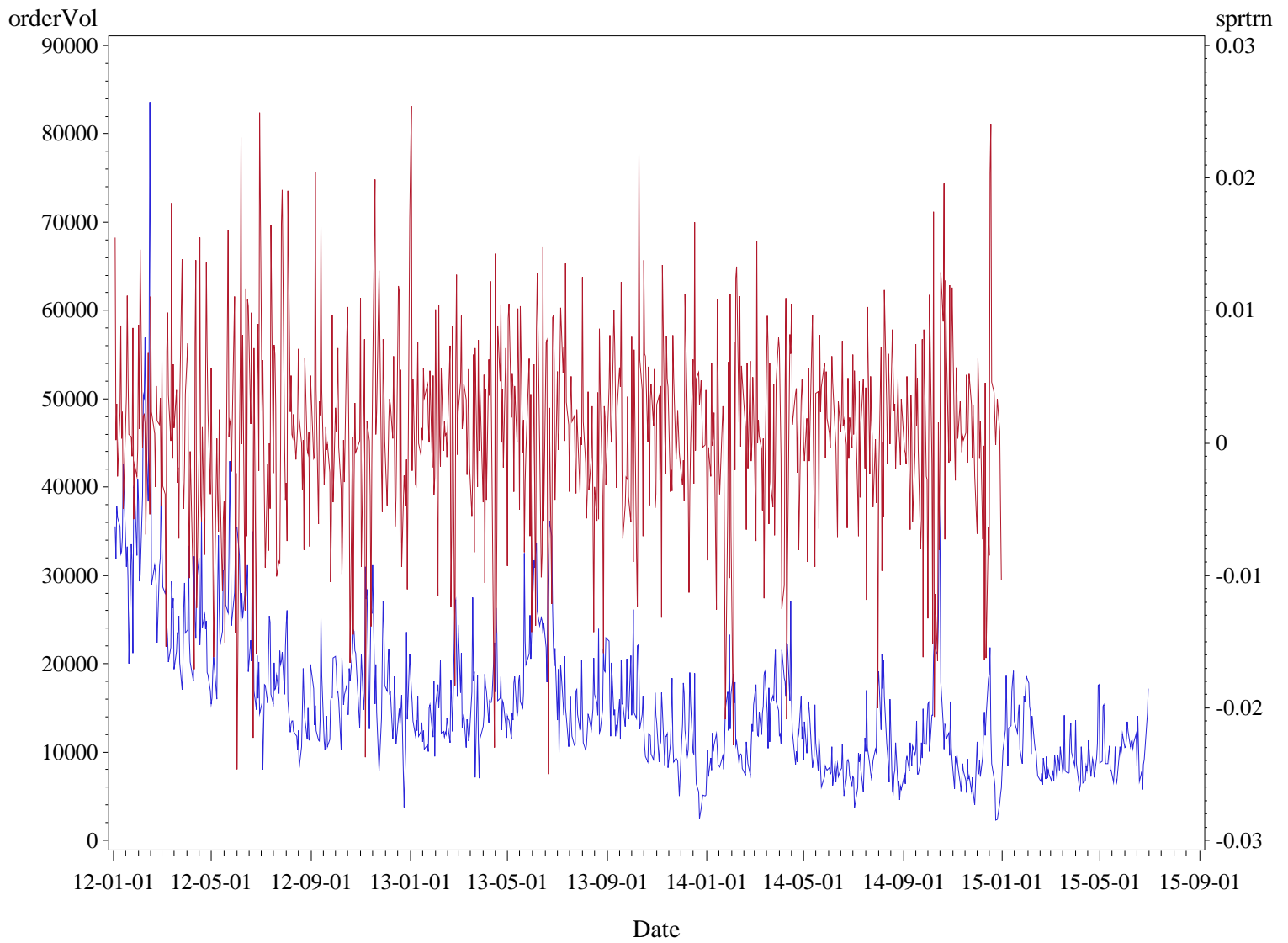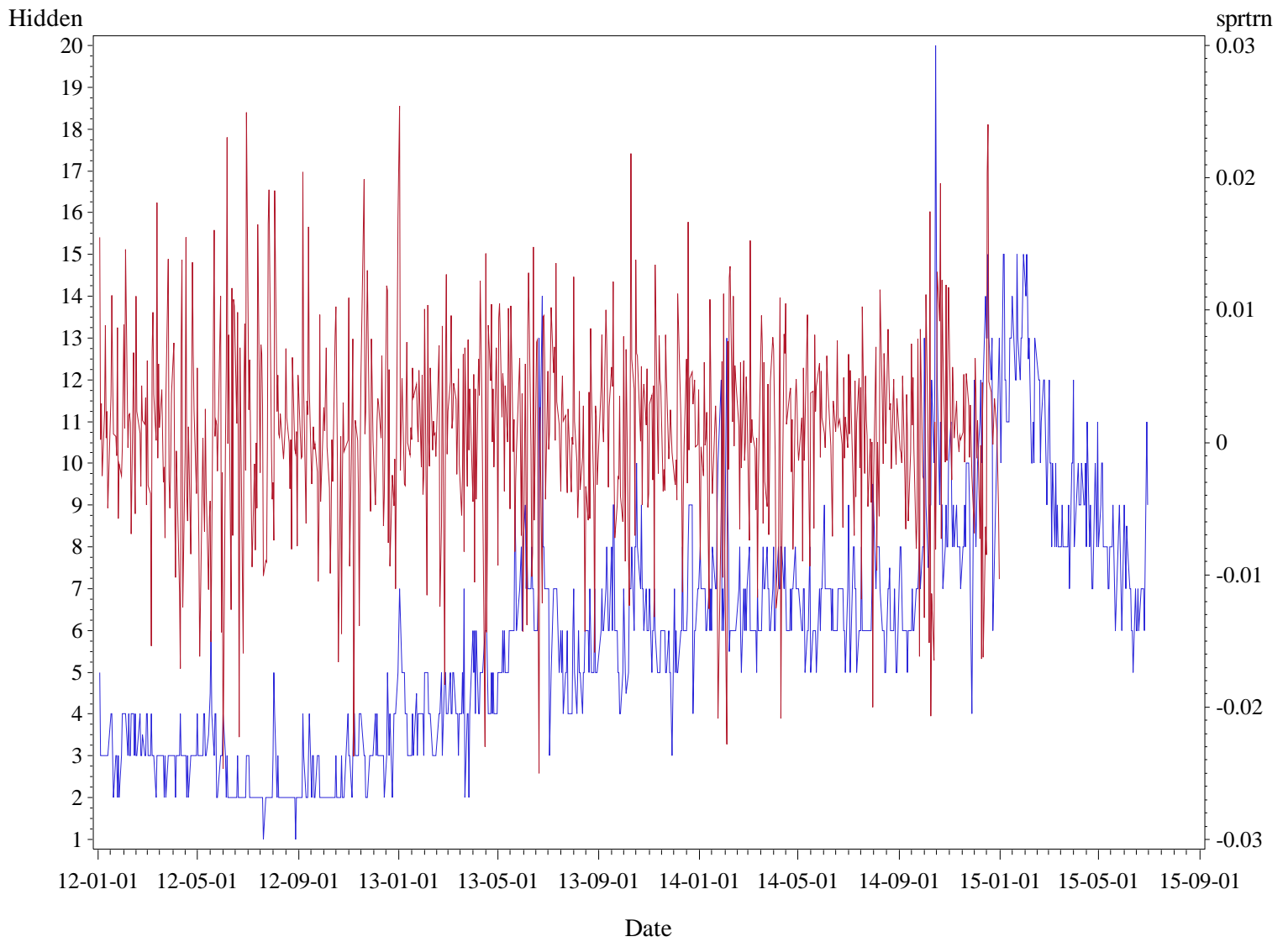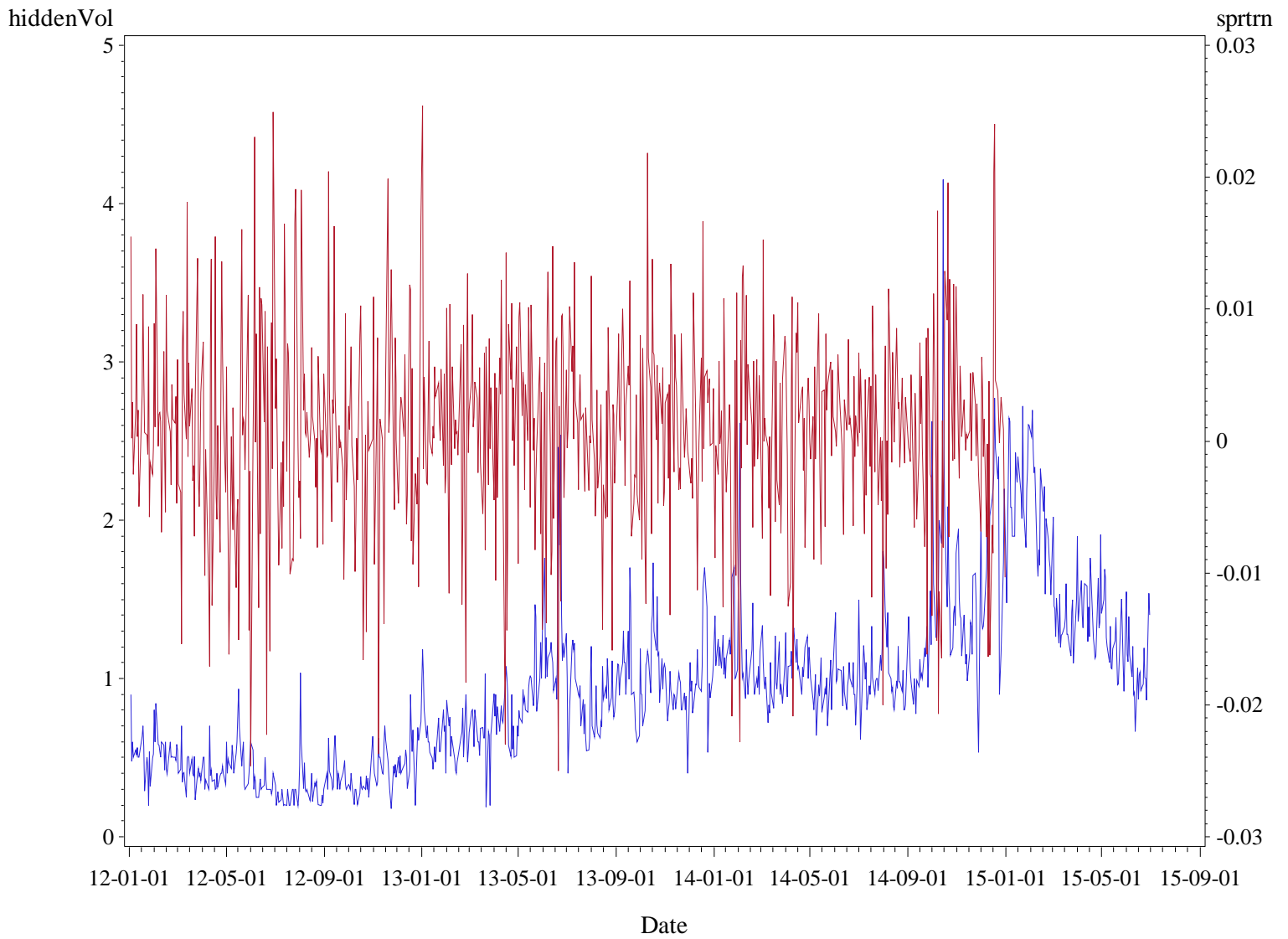
stock_median and SP500_return

LitTrades

sprtrn

Date

stock_median and SP500_return

stock_median and SP500_return

stock_median and SP500_return

stock_median and SP500_return

stock_median and SP500_return

stock_median and SP500_return

   The statistical data show TradeToOrderVol has the largest positive correlation coefficient. But in this chart their correlation is not that obvious.

stock_median and SP500_return

stock_median and SP500_return

stock_median and SP500_return

stock_median and SP500_return

etf_median and SP500_return

etf_median and SP500_return

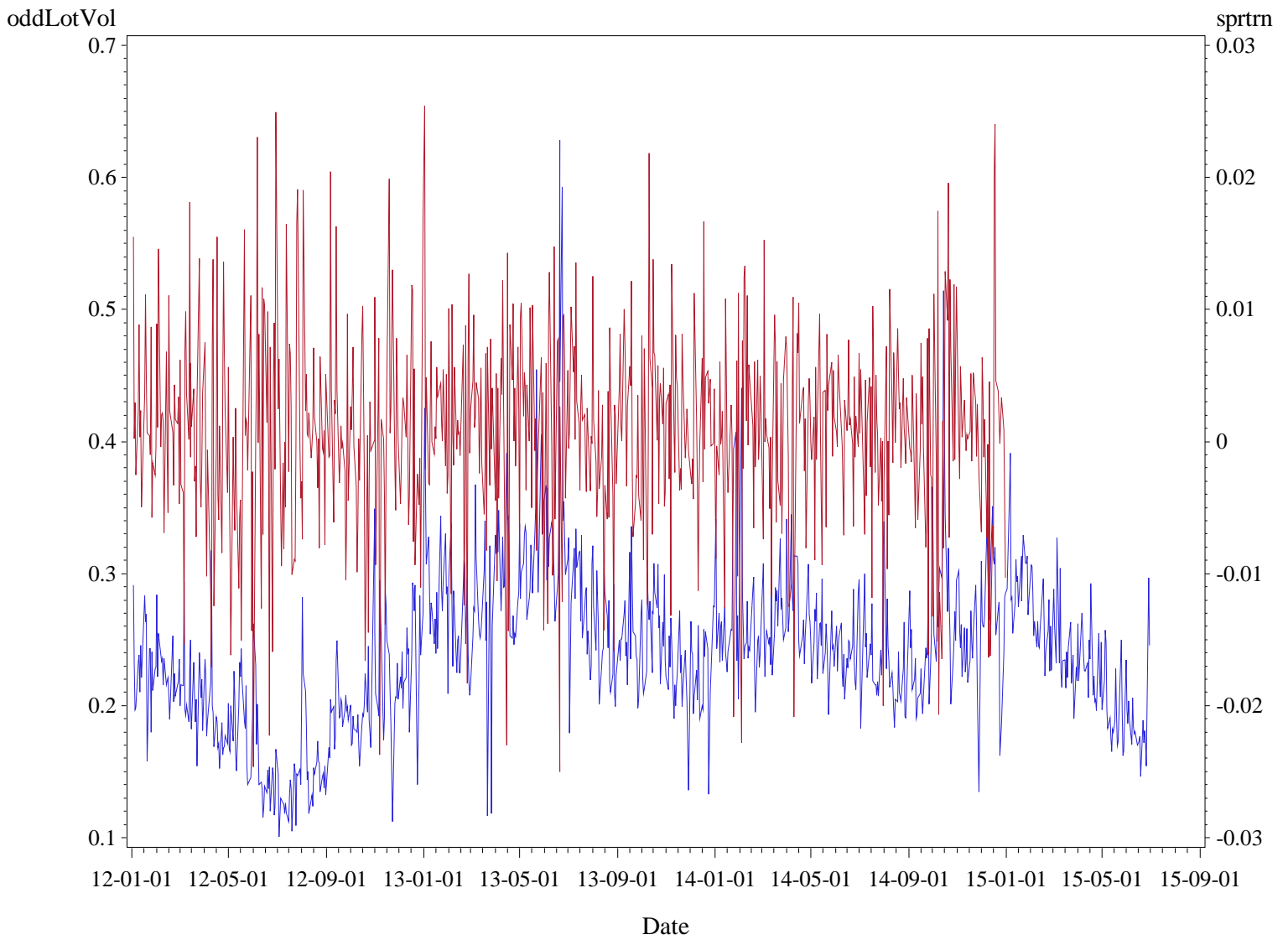**etf_median and SP500_return**

etf_median and SP500_return

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etf_median and SP500_return

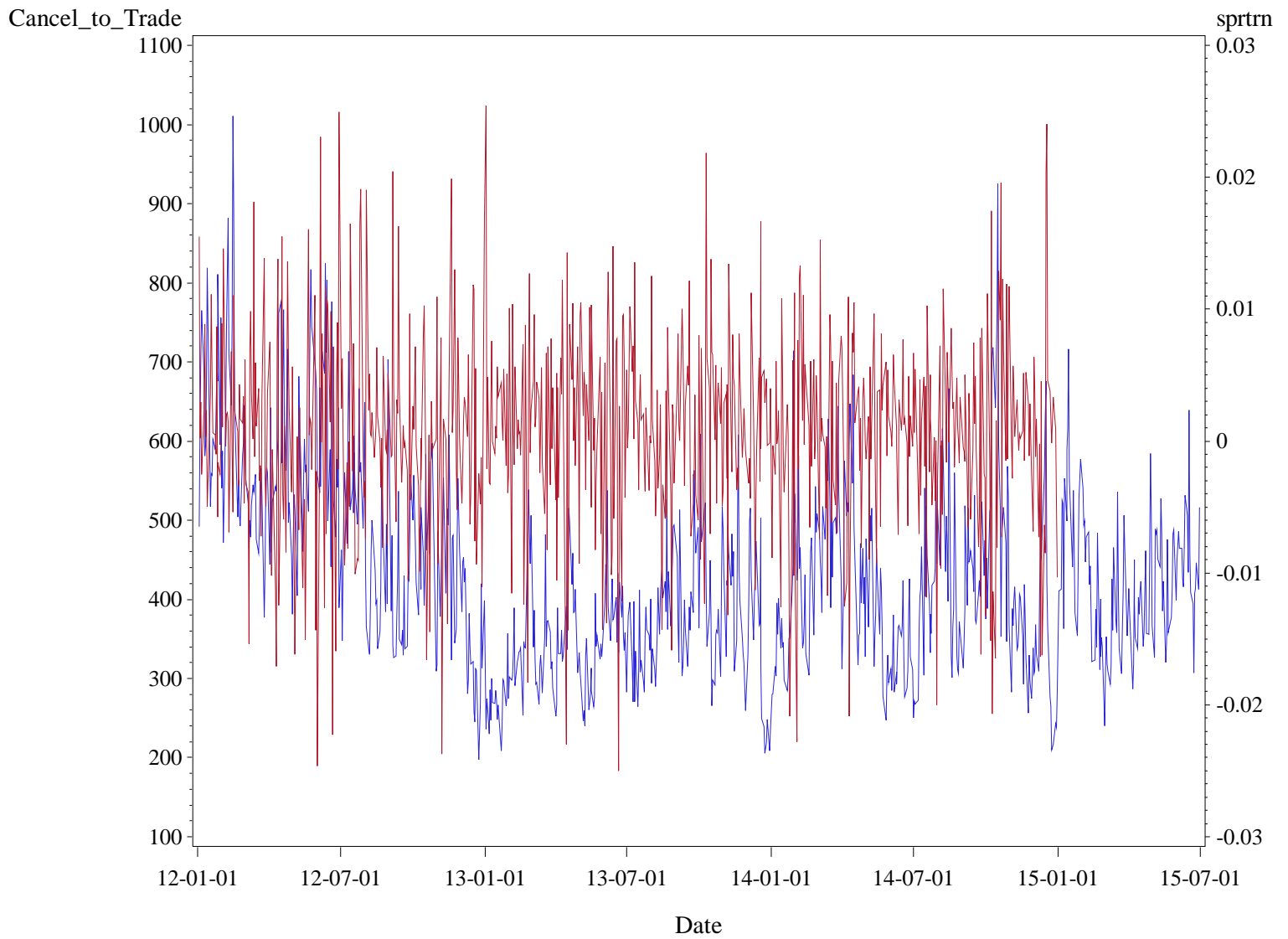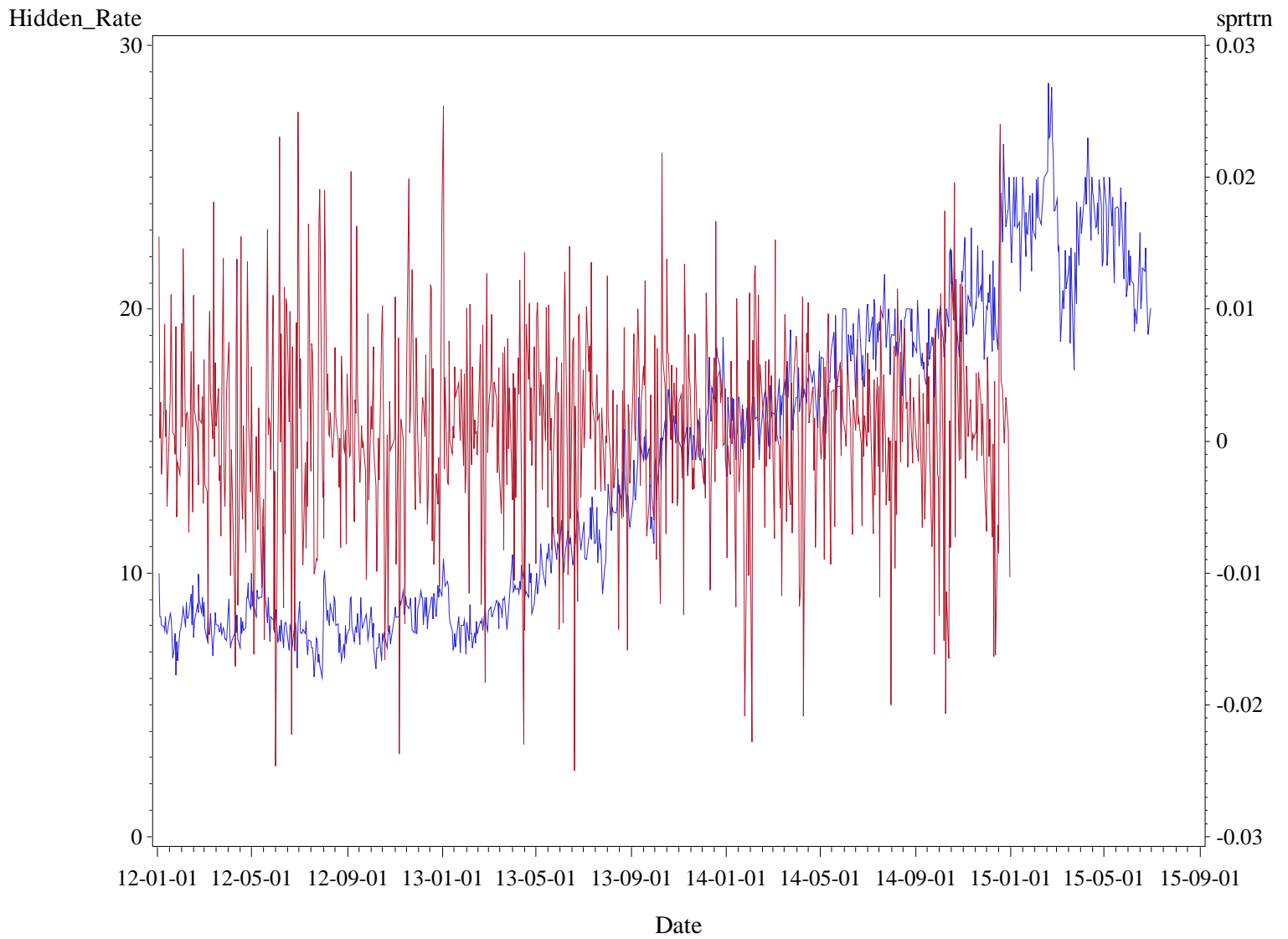**etf_median and SP500_return**

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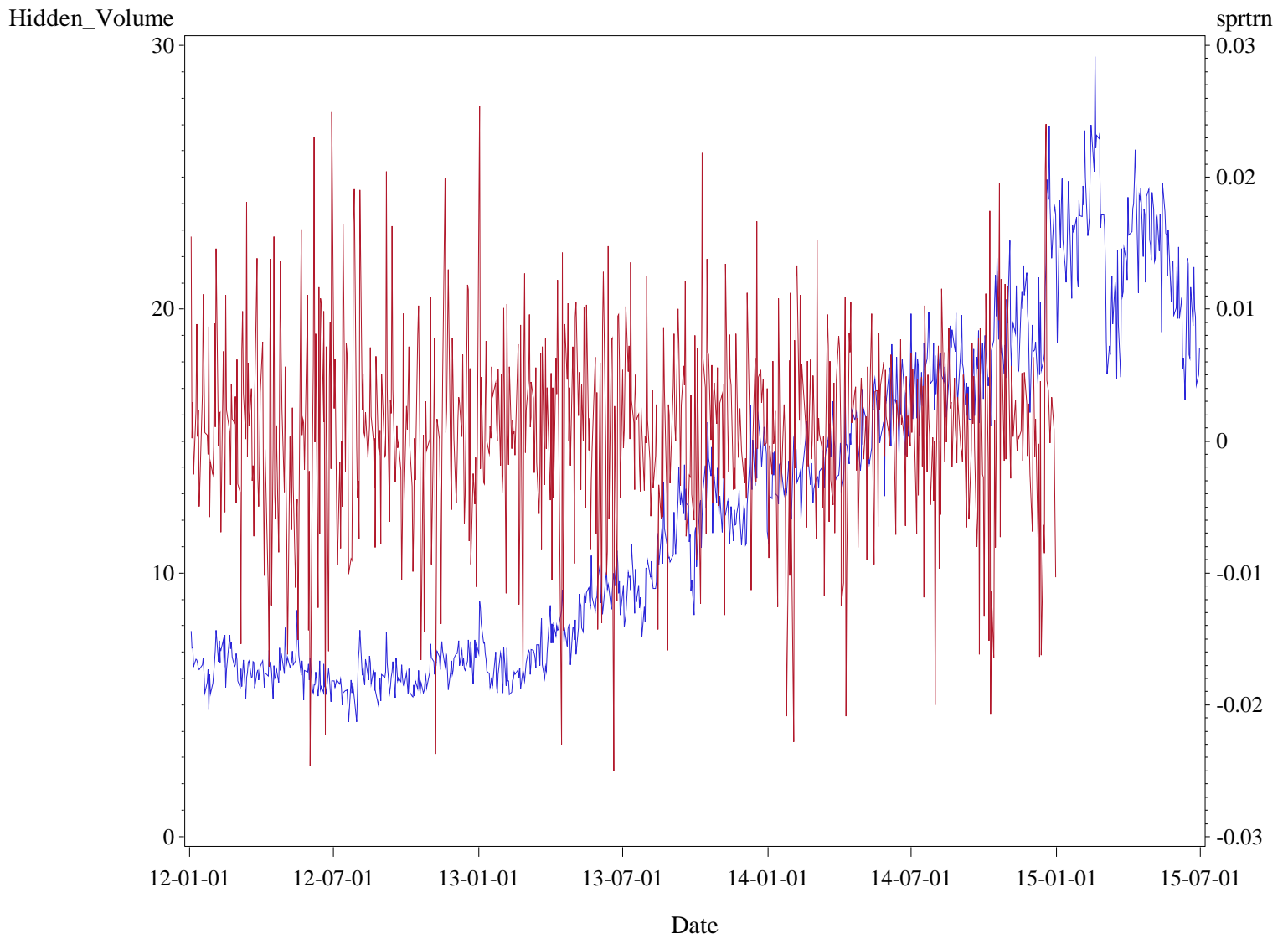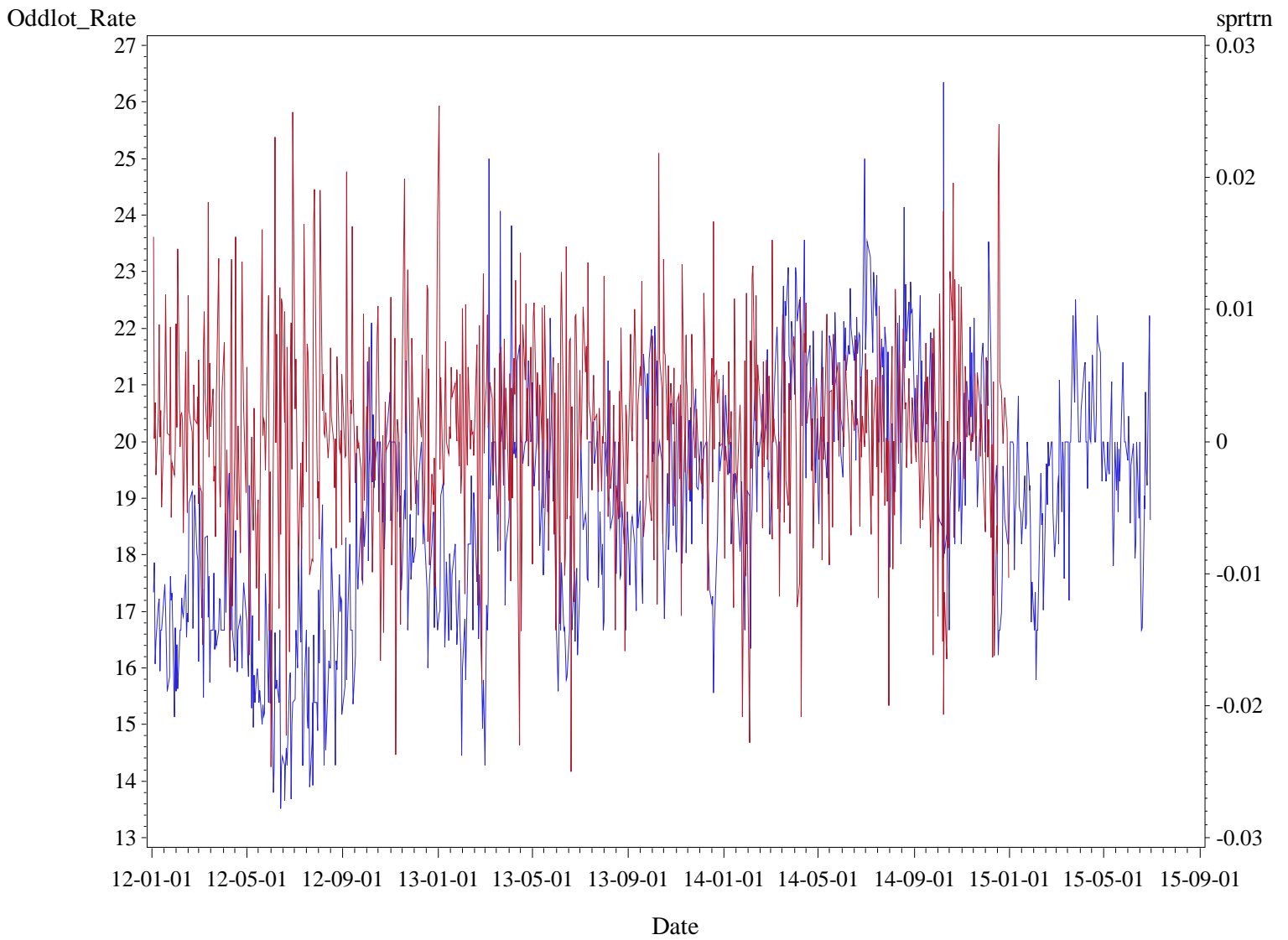
etf_median and SP500_return

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