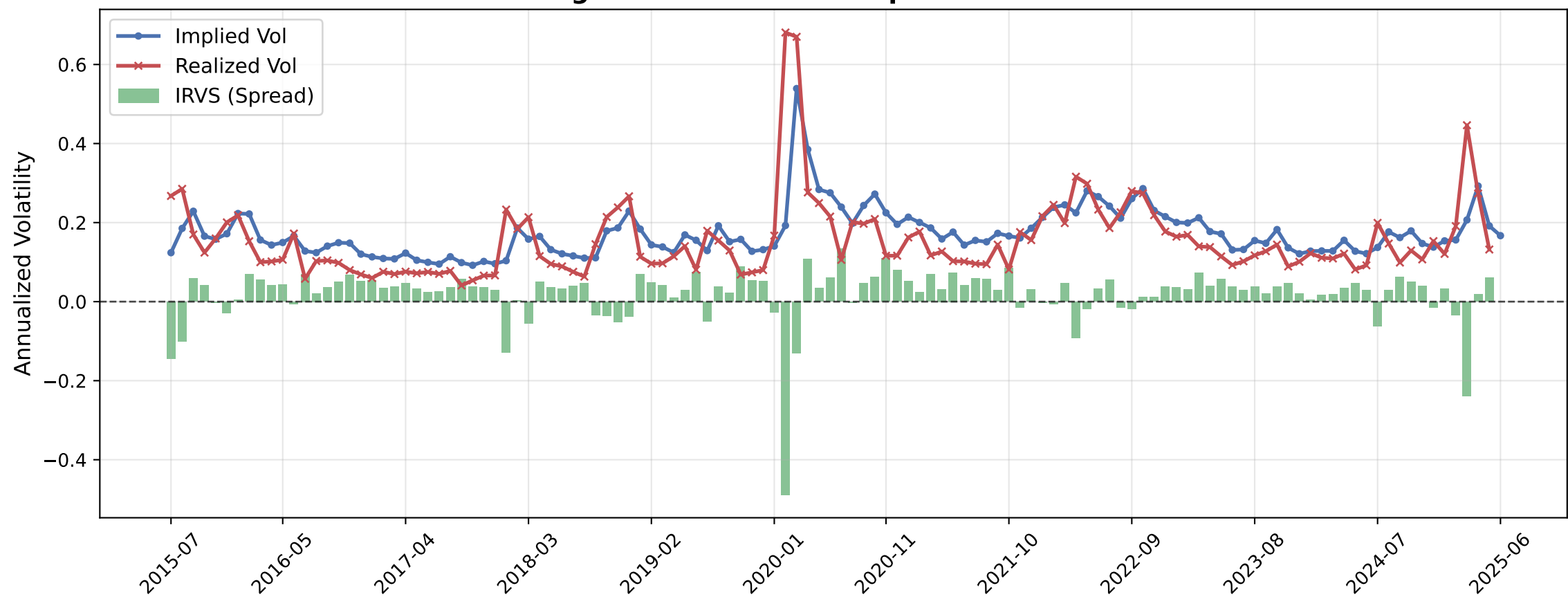
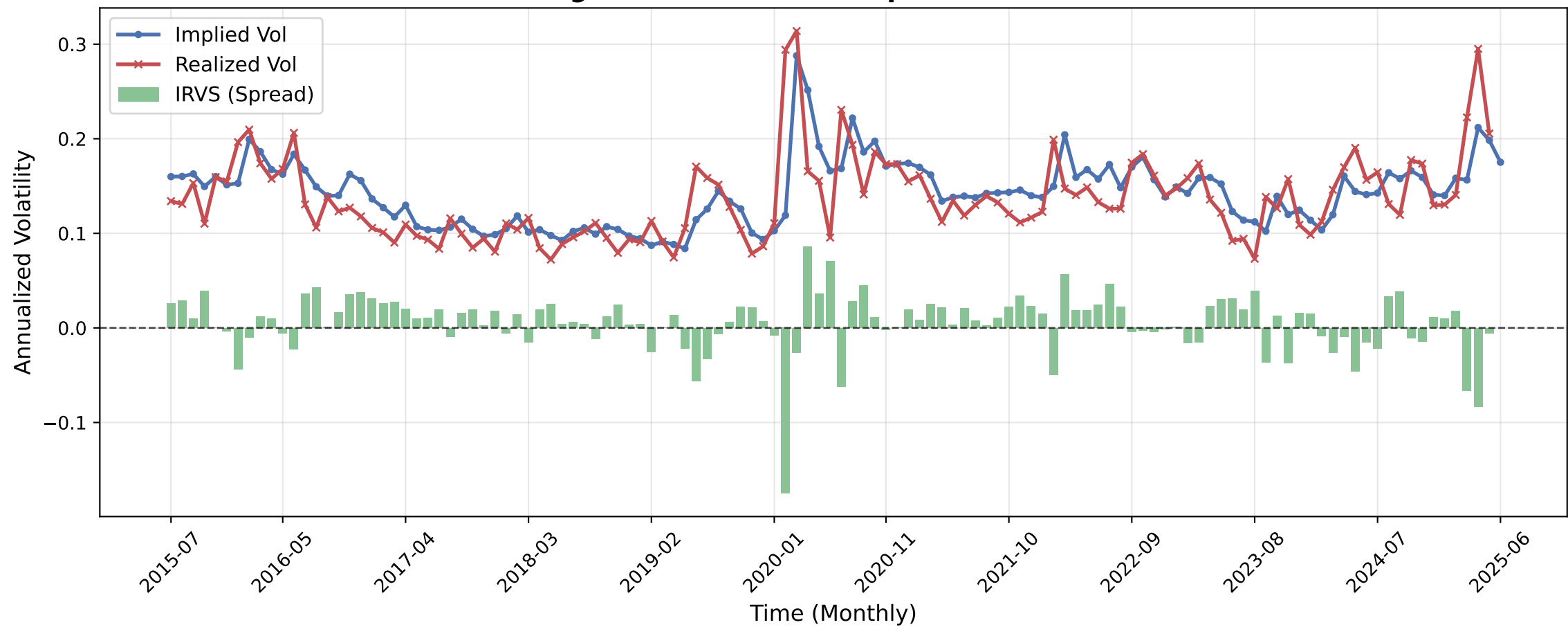


**Figure 1: IRVS and Components for SPY**

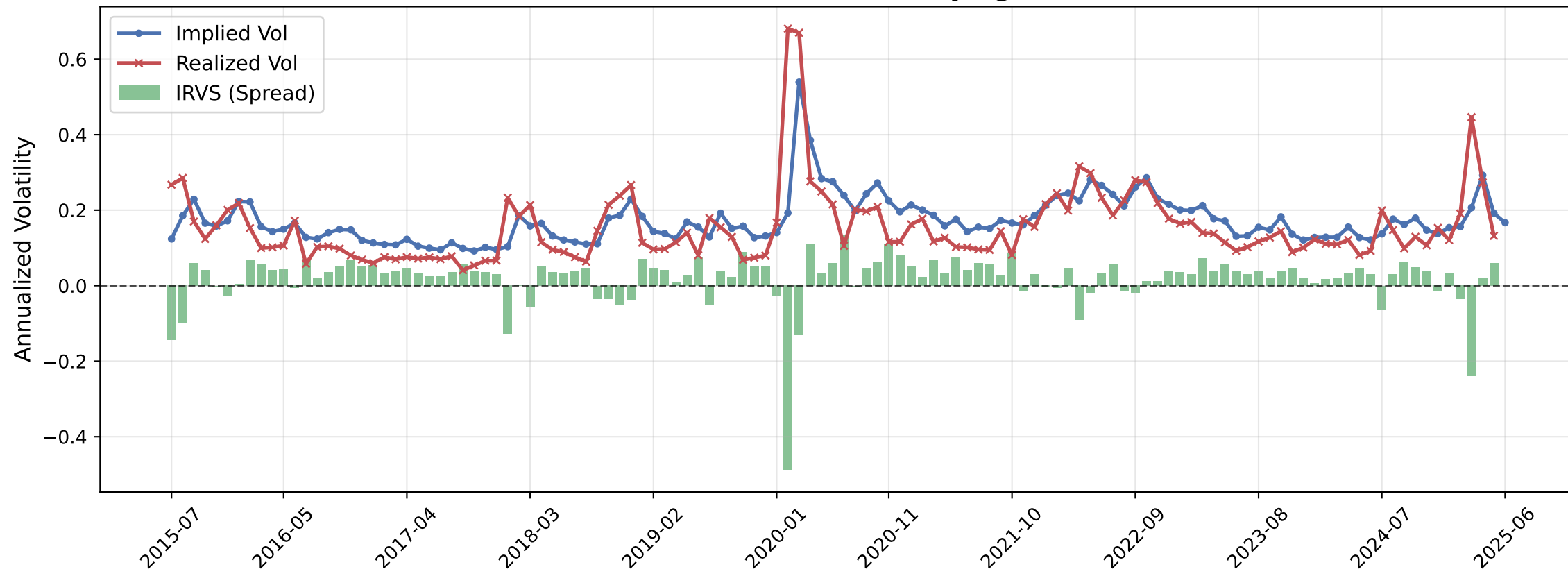


**Figure 2: IRVS and Components for GLD**

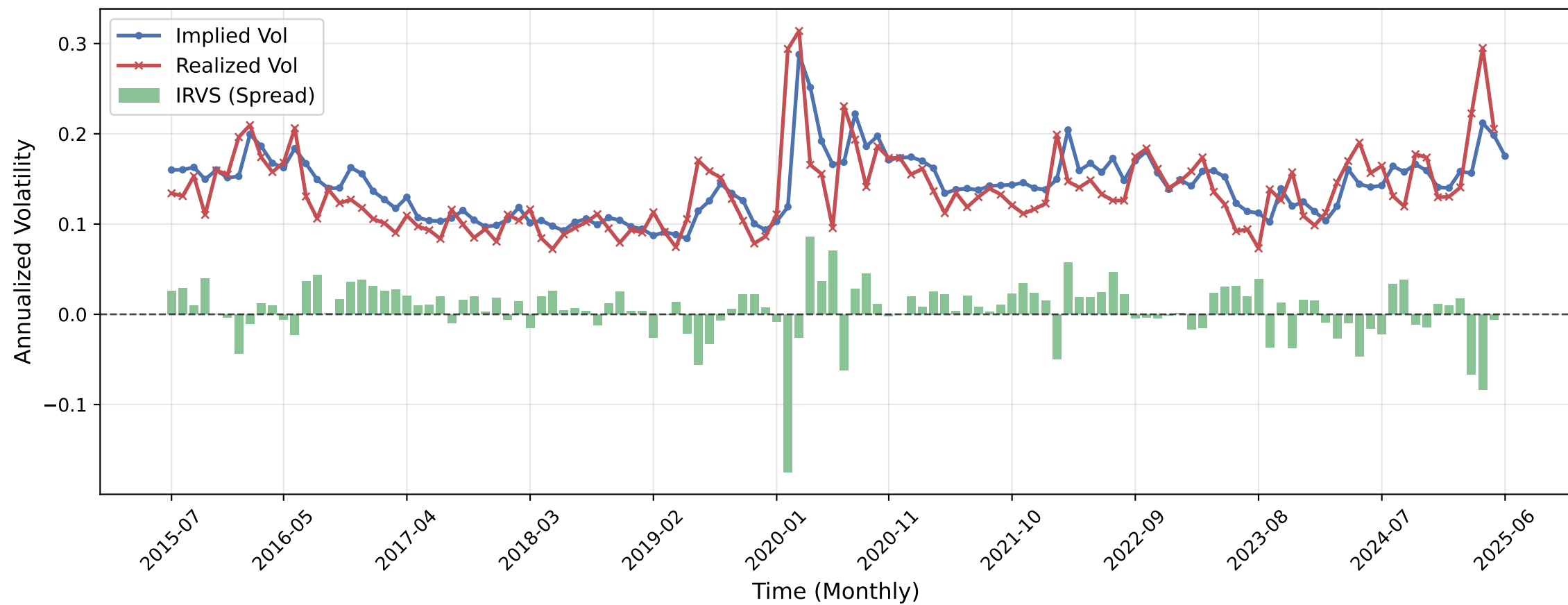


# IRVS Analysis: SPY vs GLD

## Panel 1: SPY Underlying

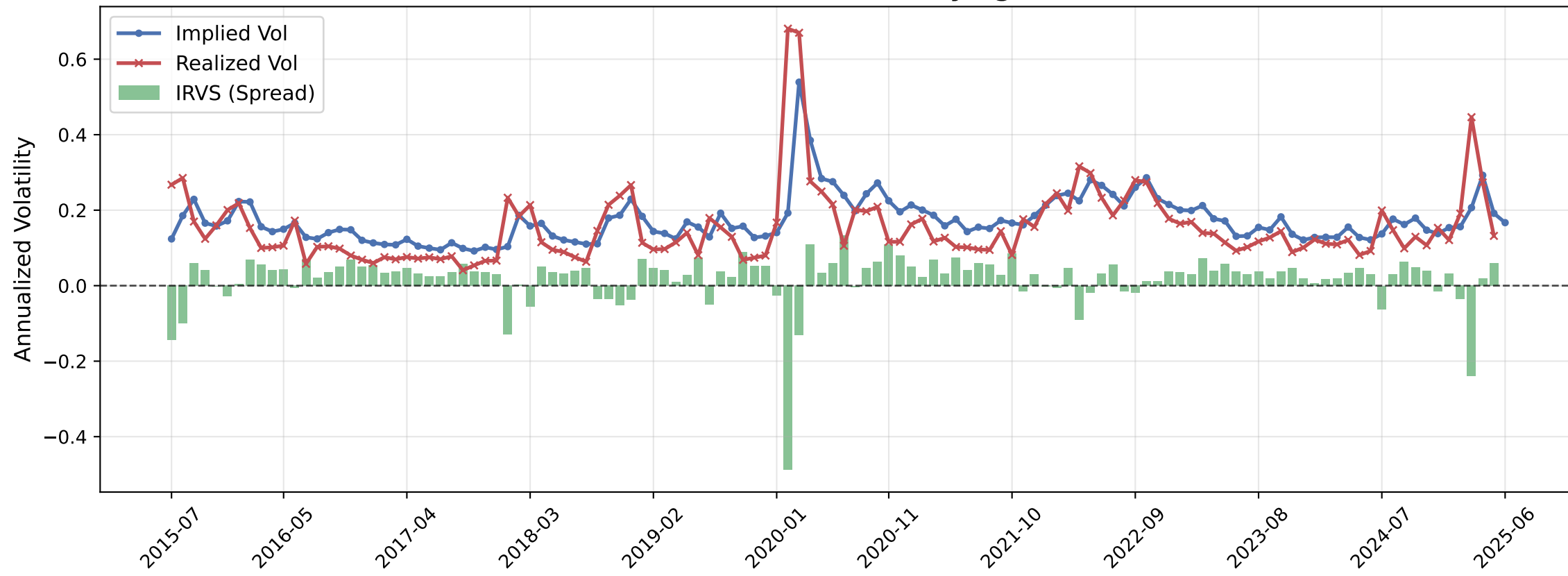


## Panel 2: GLD

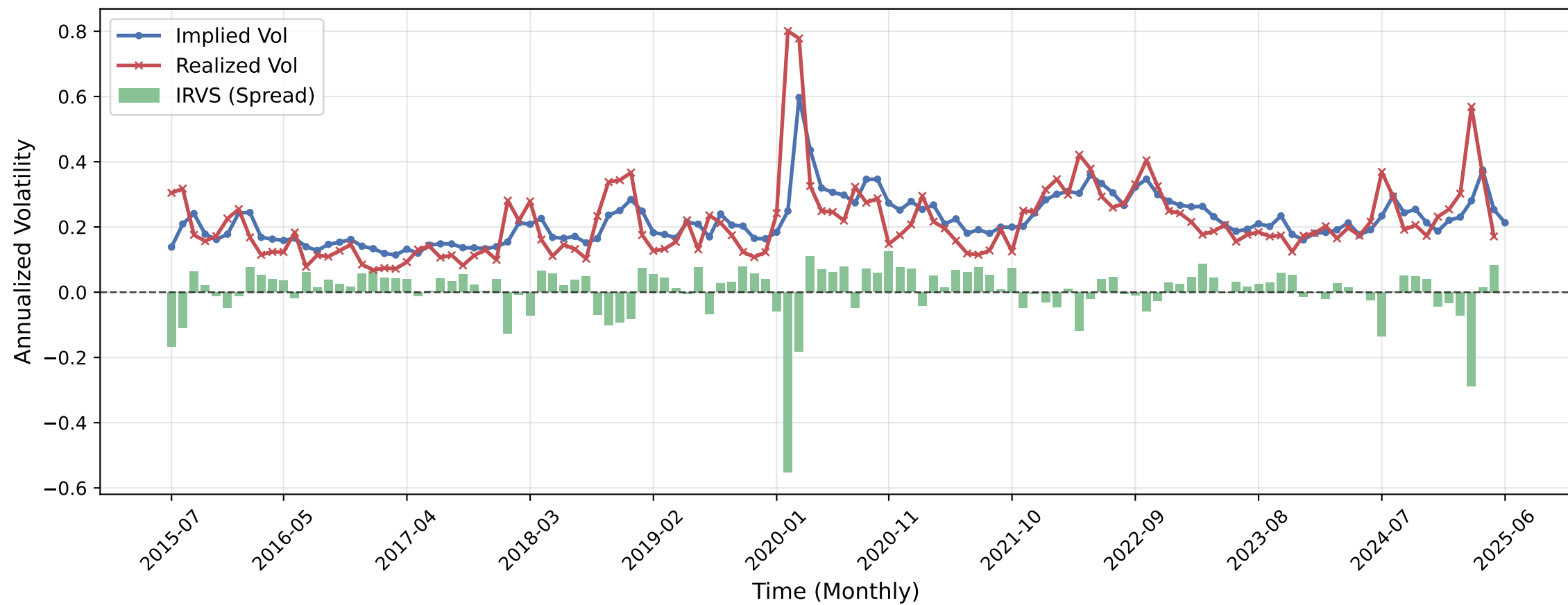


# IRVS Analysis: SPY vs XLK

## Panel 1: SPY Underlying

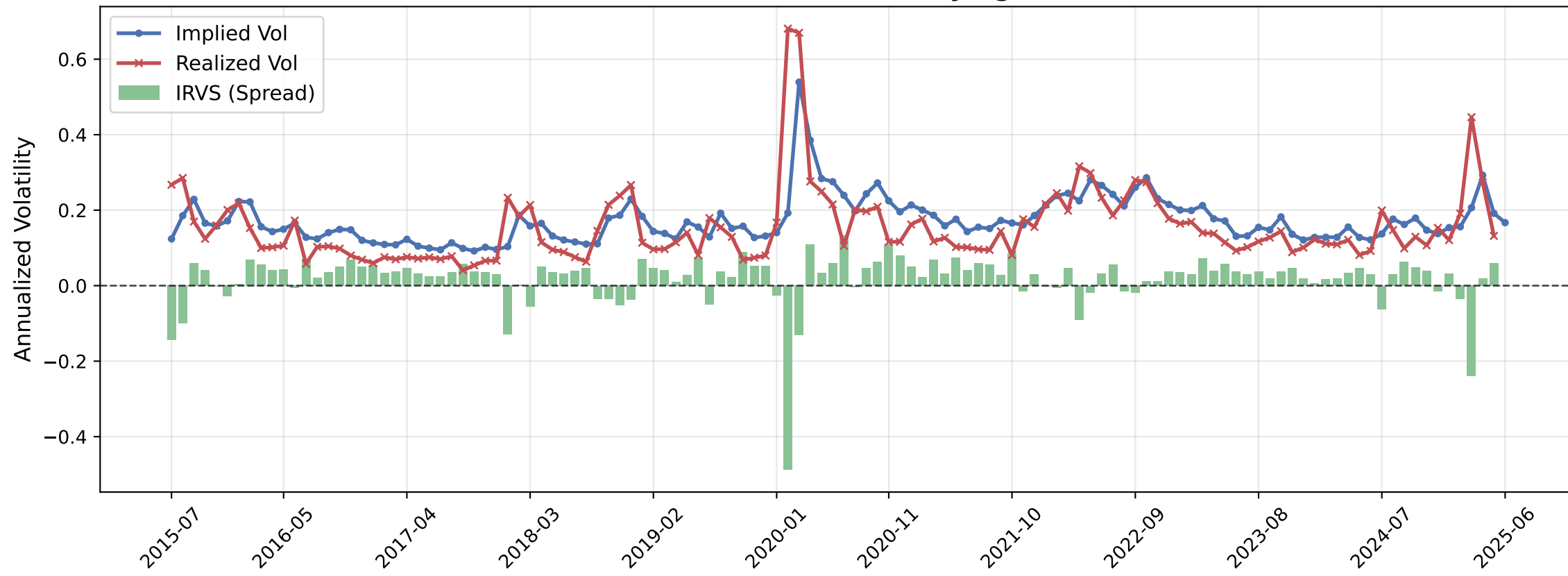


## Panel 2: XLK



# IRVS Analysis: SPY vs IWM

## Panel 1: SPY Underlying

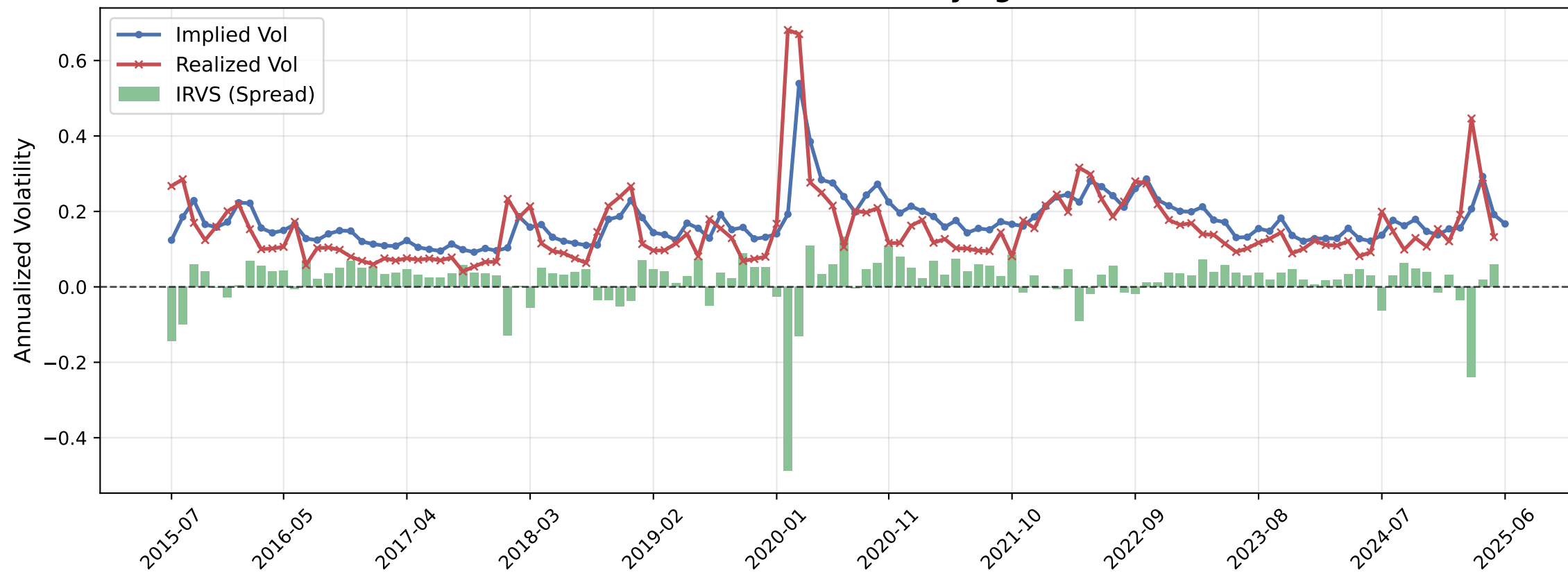


## Panel 2: IWM

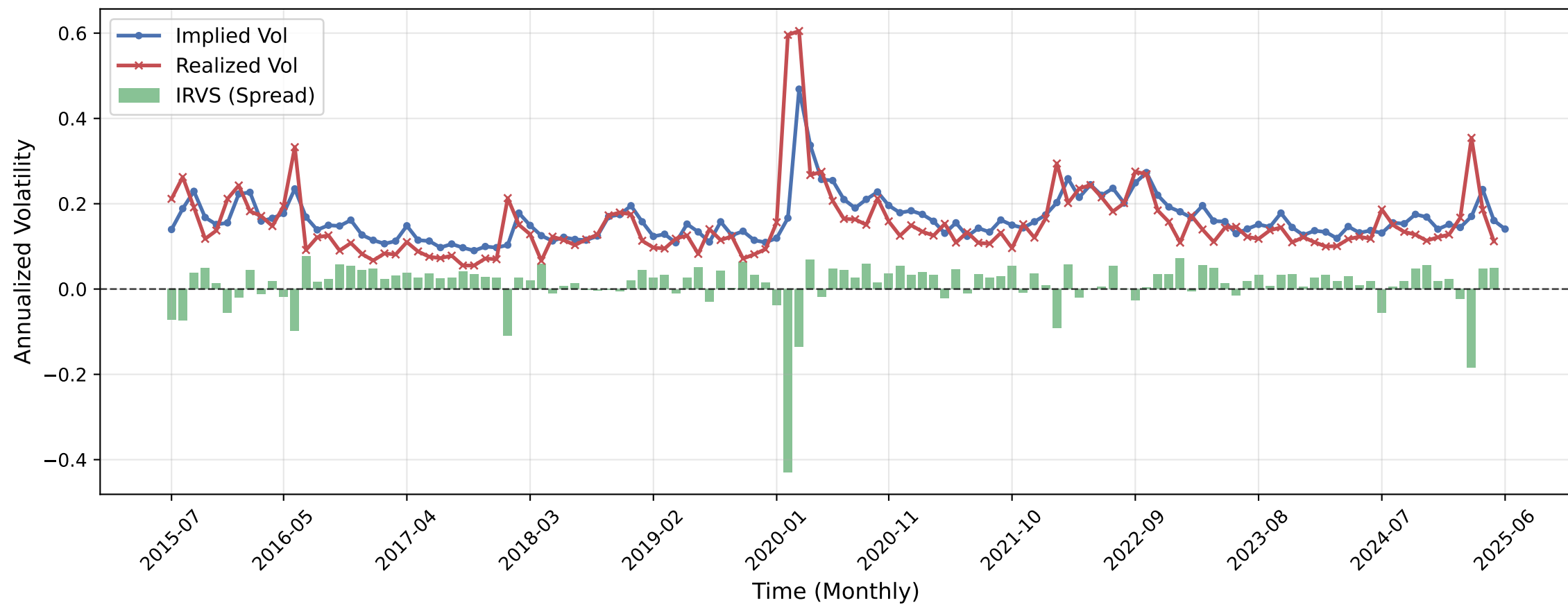


# IRVS Analysis: SPY vs EFA

## Panel 1: SPY Underlying

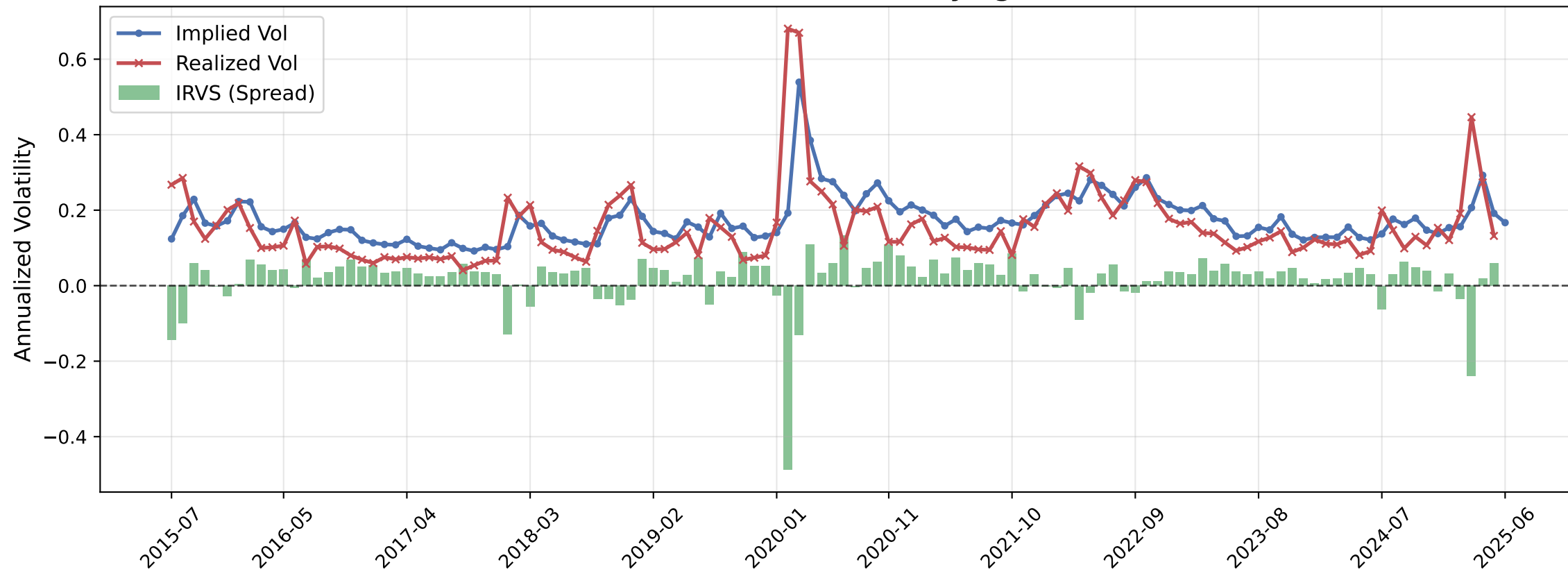


## Panel 2: EFA

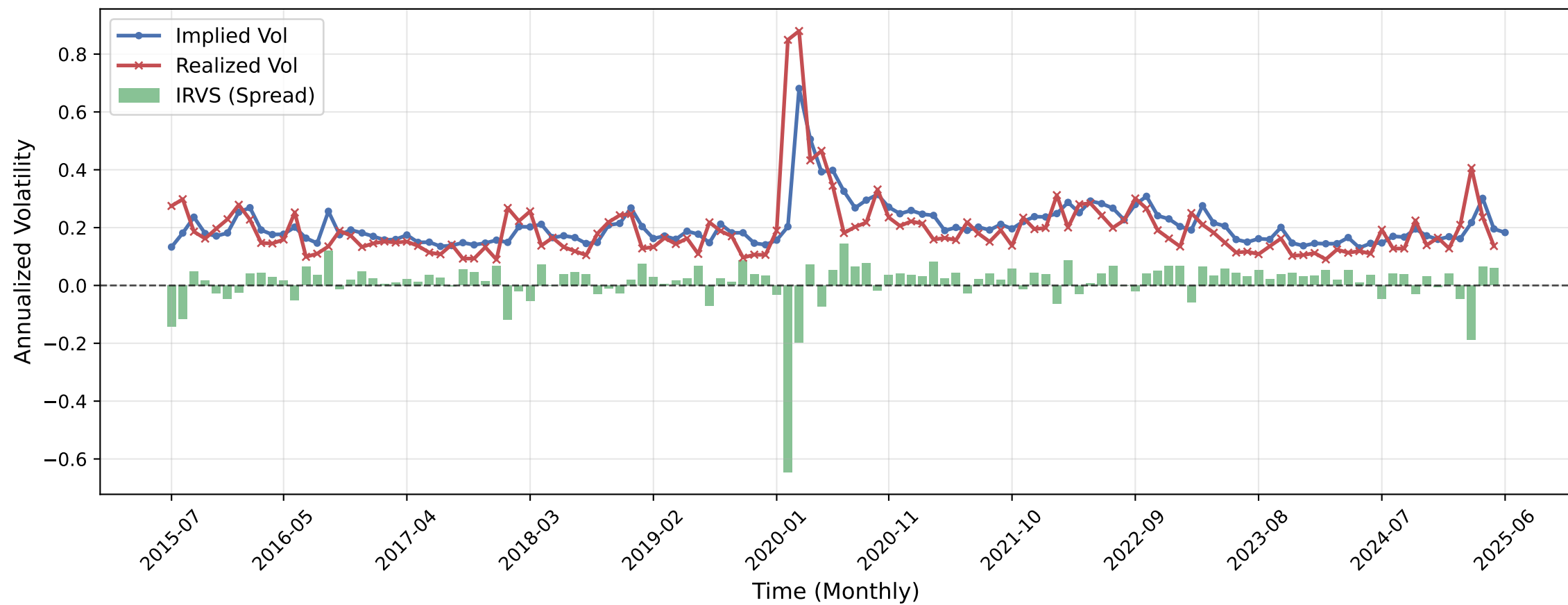


# IRVS Analysis: SPY vs XLF

## Panel 1: SPY Underlying

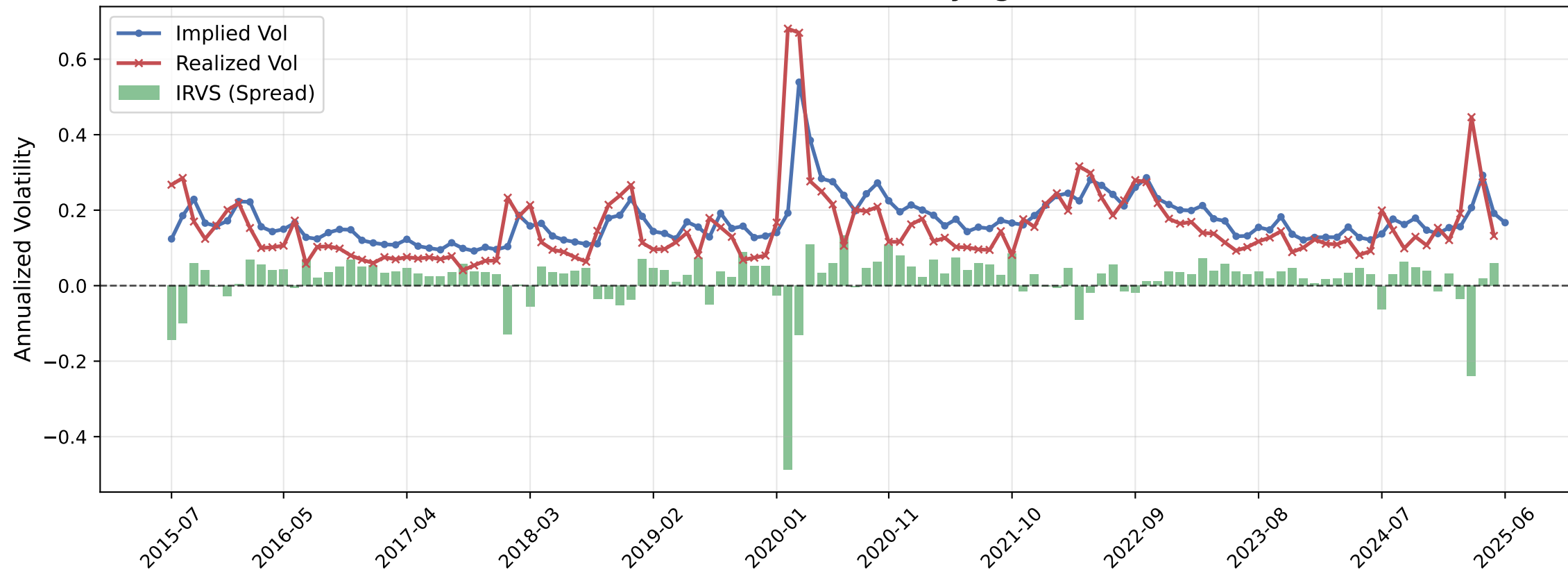


## Panel 2: XLF

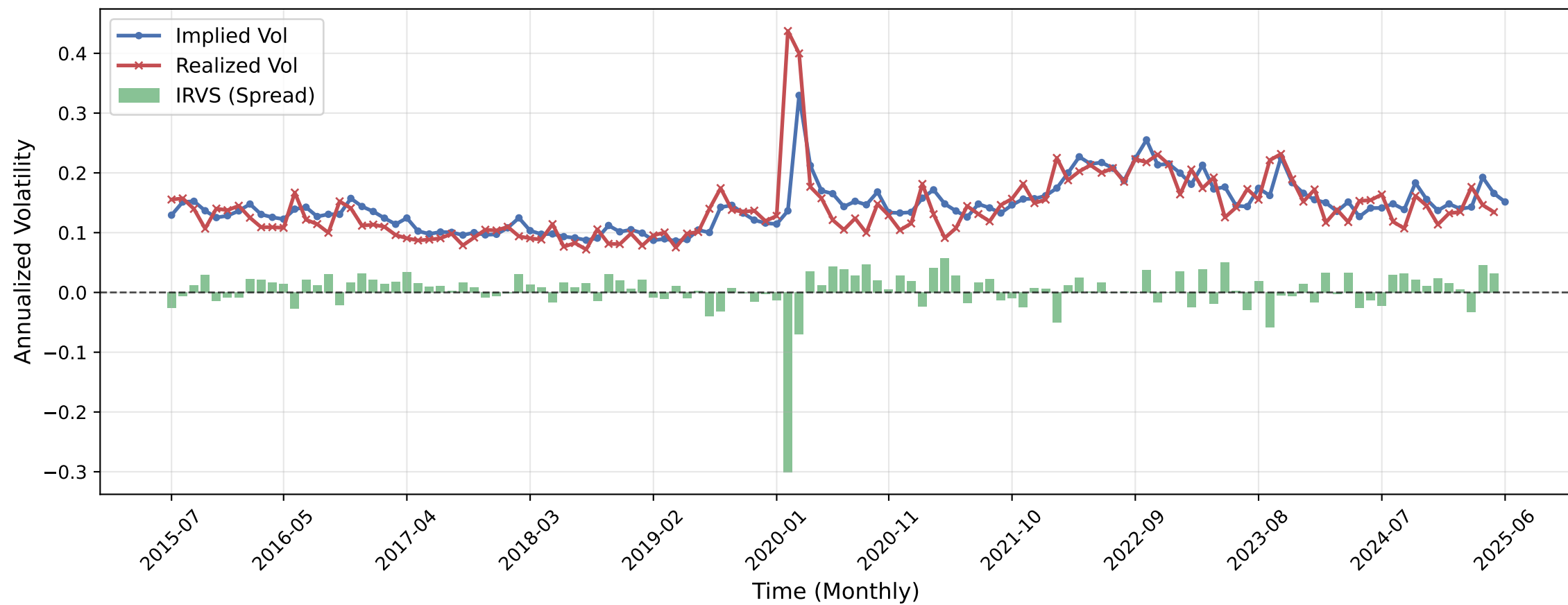


# IRVS Analysis: SPY vs TLT

## Panel 1: SPY Underlying

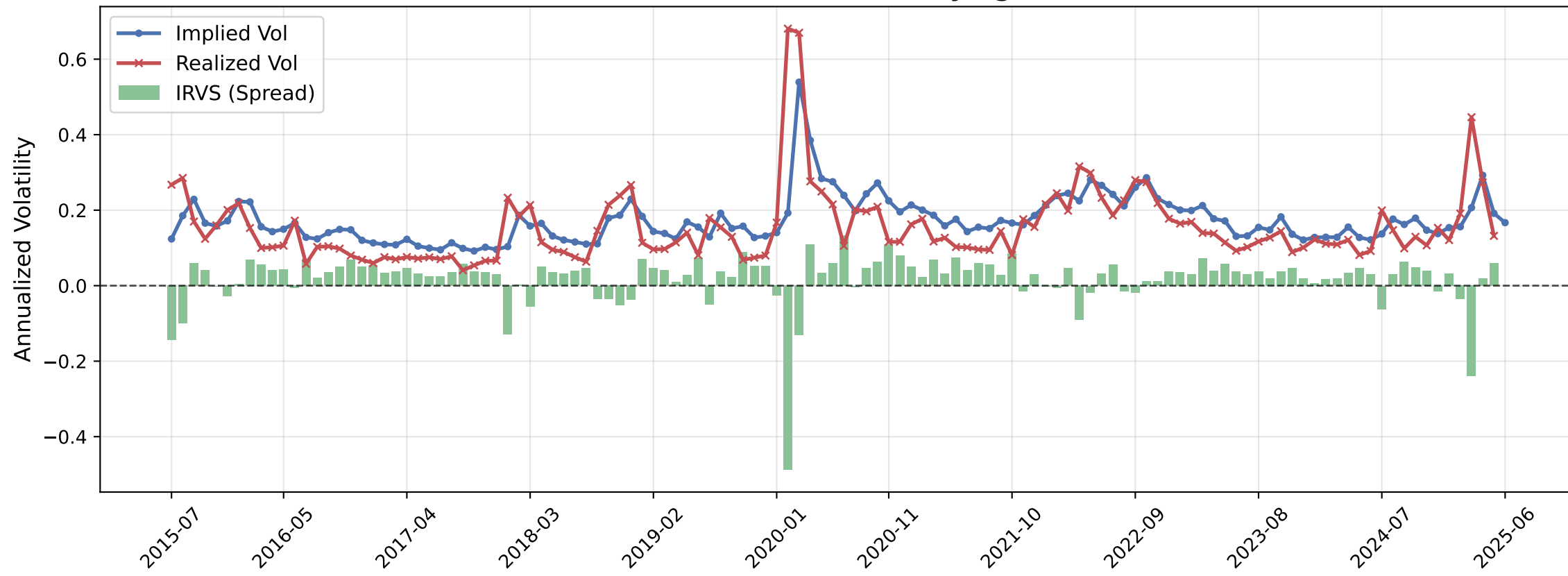


## Panel 2: TLT

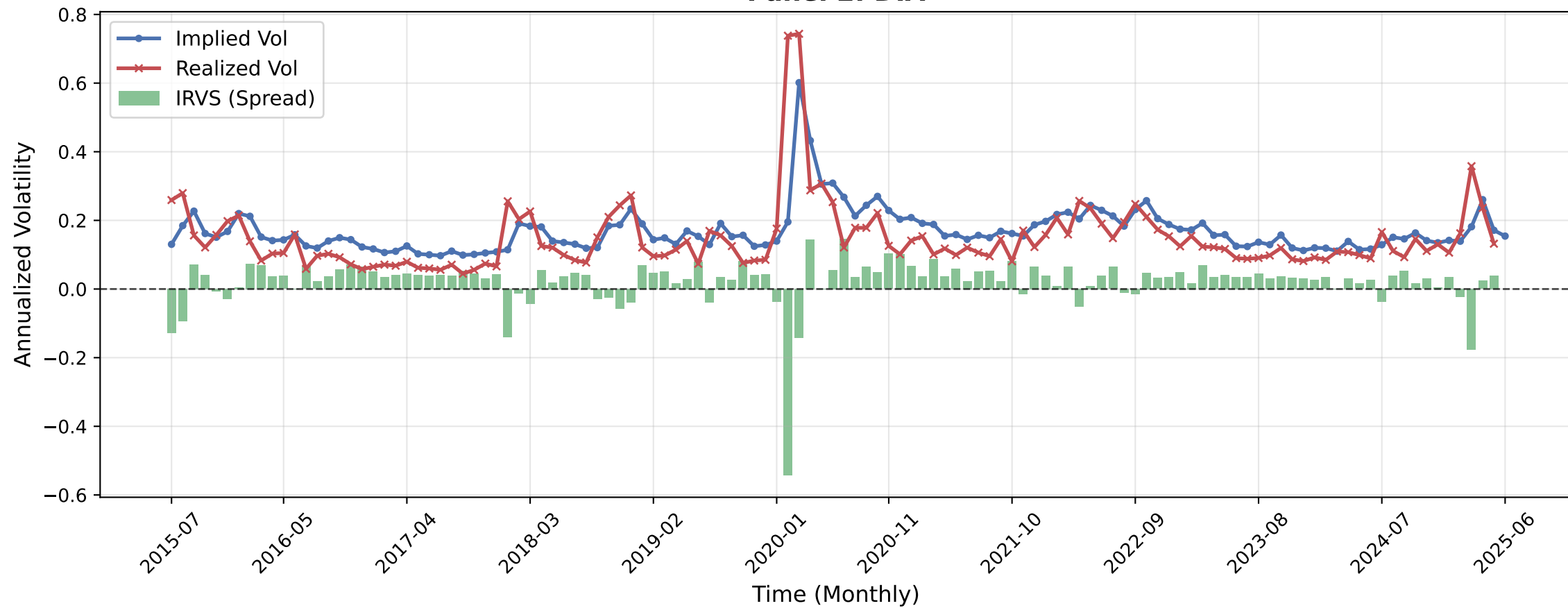


# IRVS Analysis: SPY vs DIA

## Panel 1: SPY Underlying



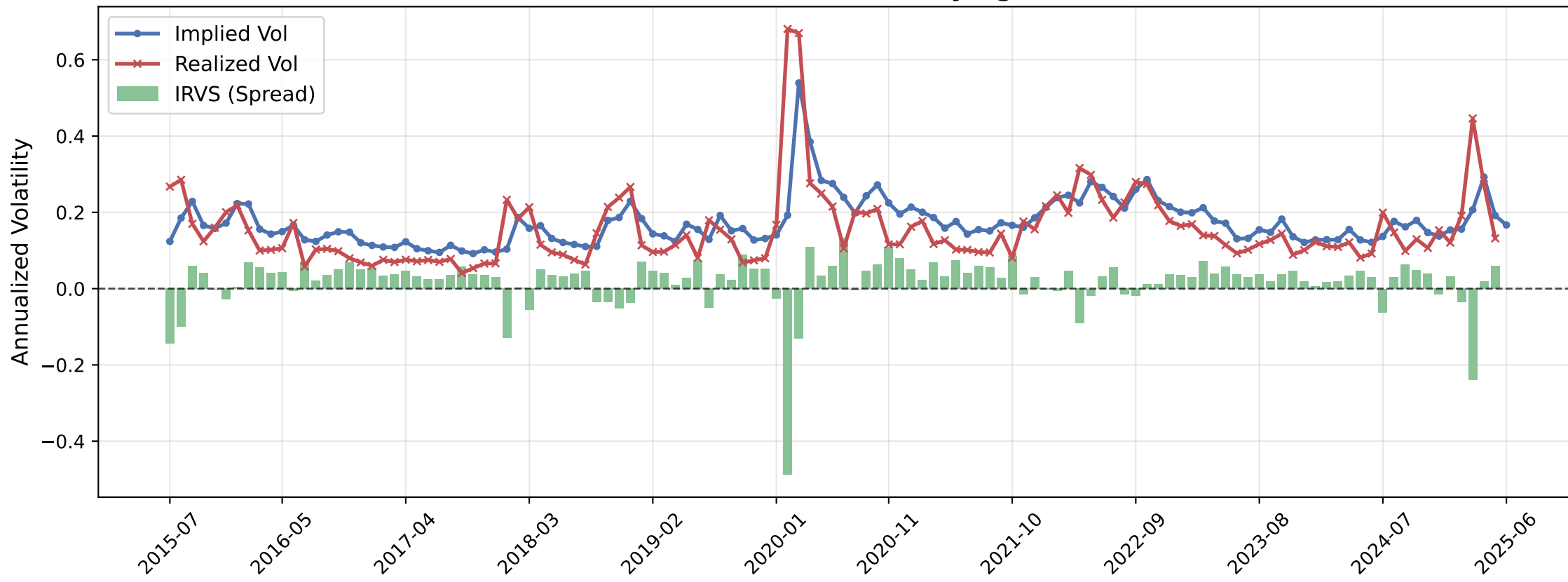
## Panel 2: DIA



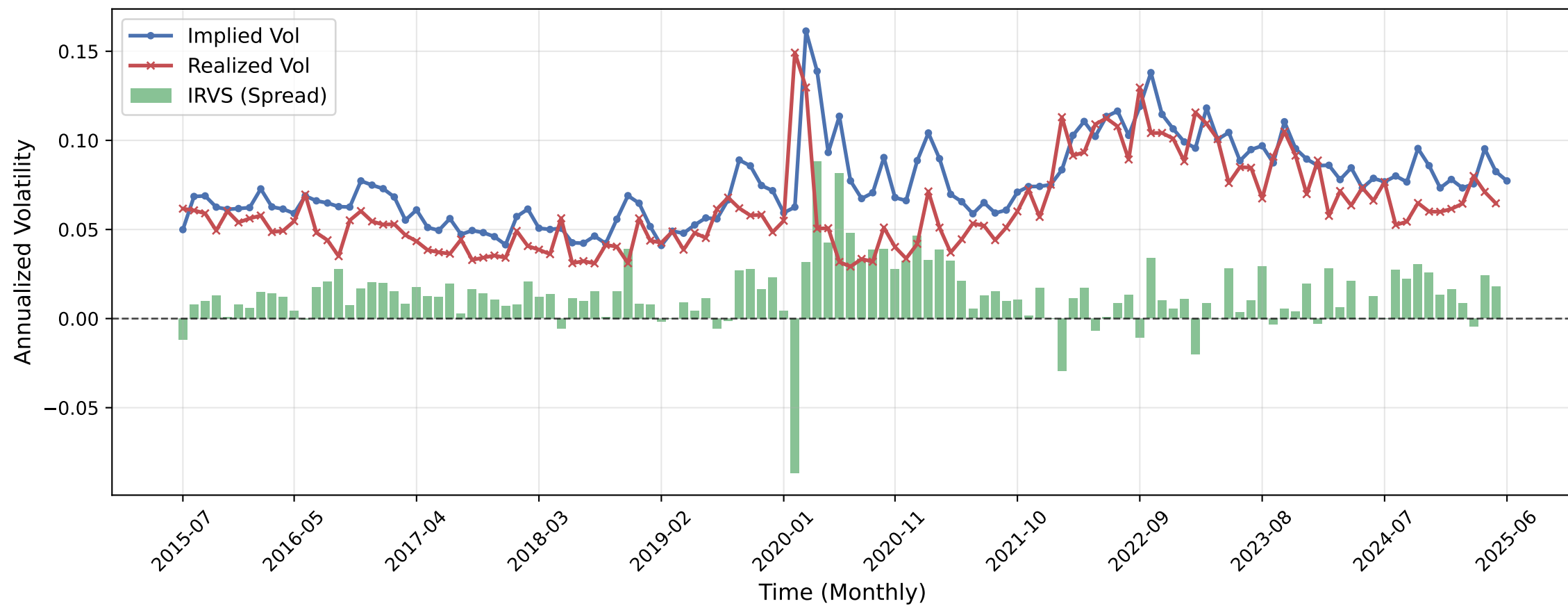


# IRVS Analysis: SPY vs IEF

## Panel 1: SPY Underlying

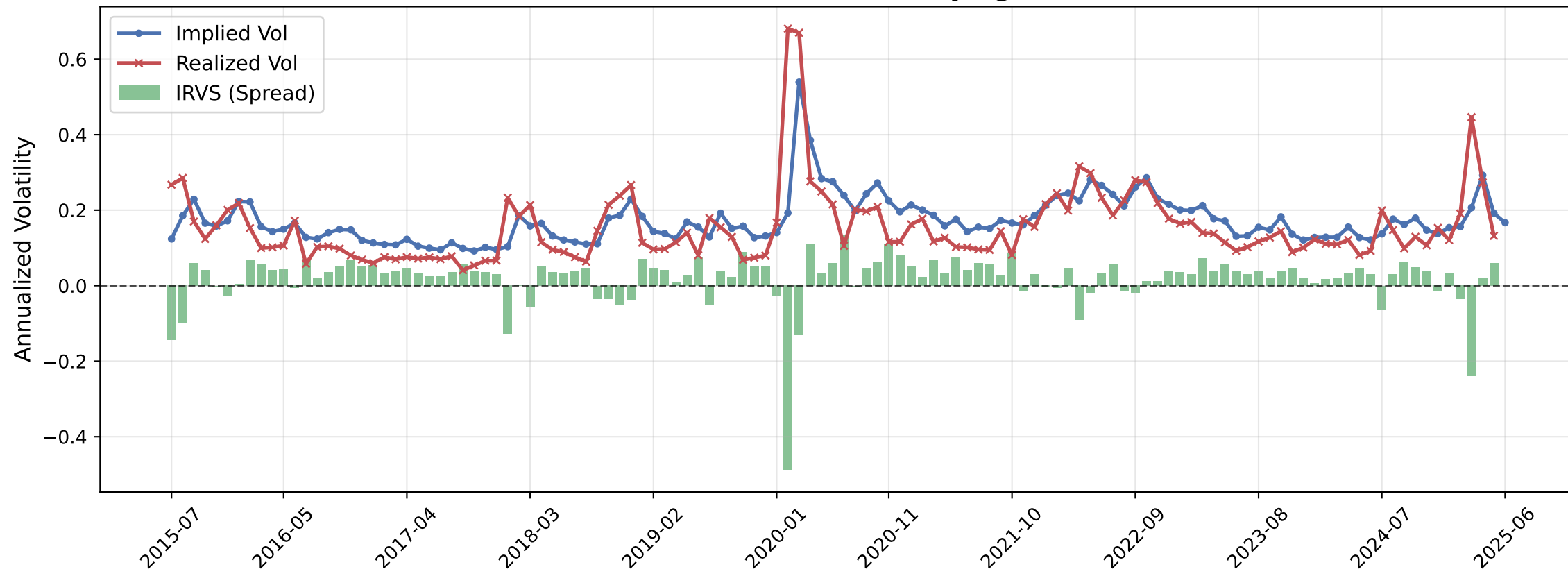


## Panel 2: IEF

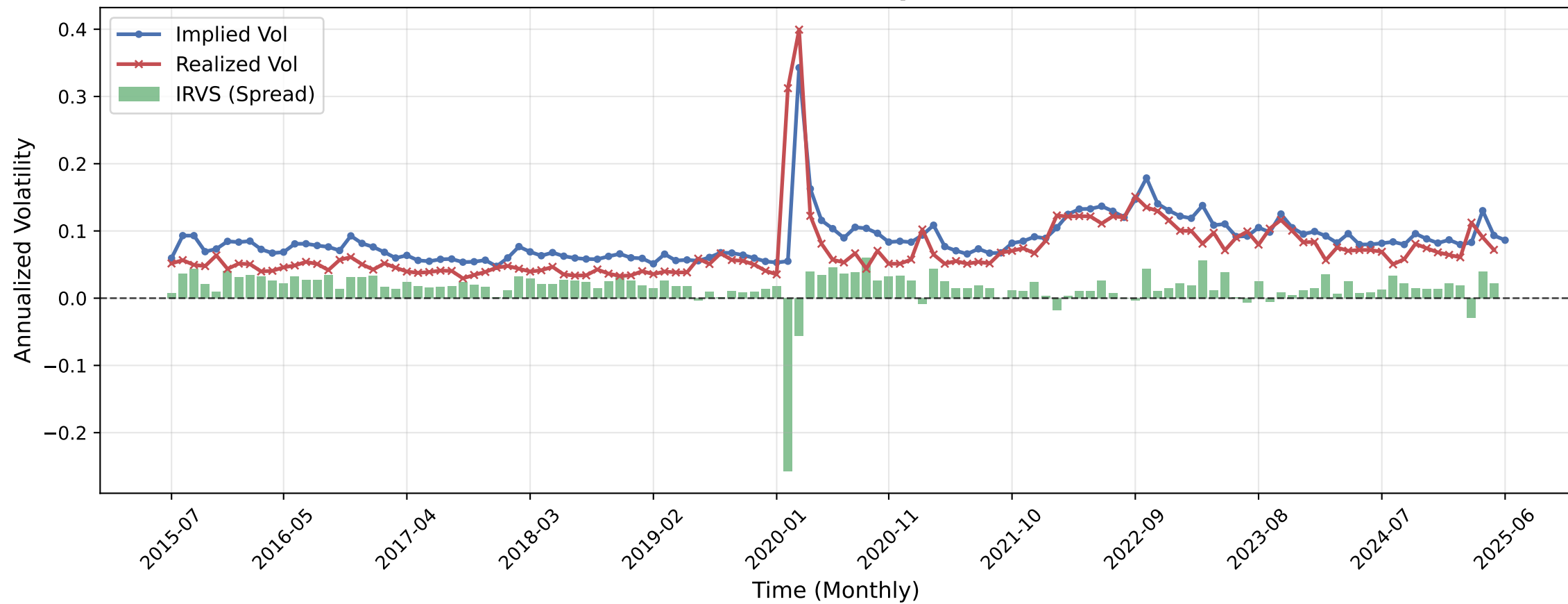


# IRVS Analysis: SPY vs LQD

## Panel 1: SPY Underlying

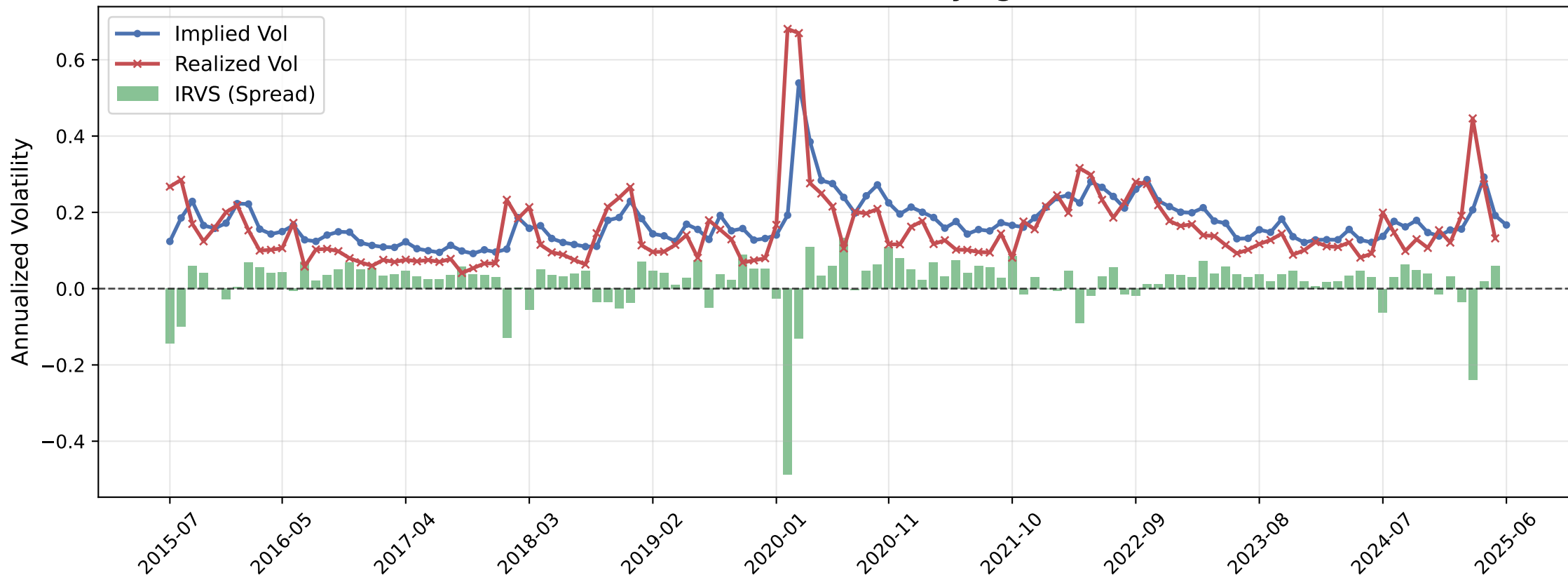


## Panel 2: LQD

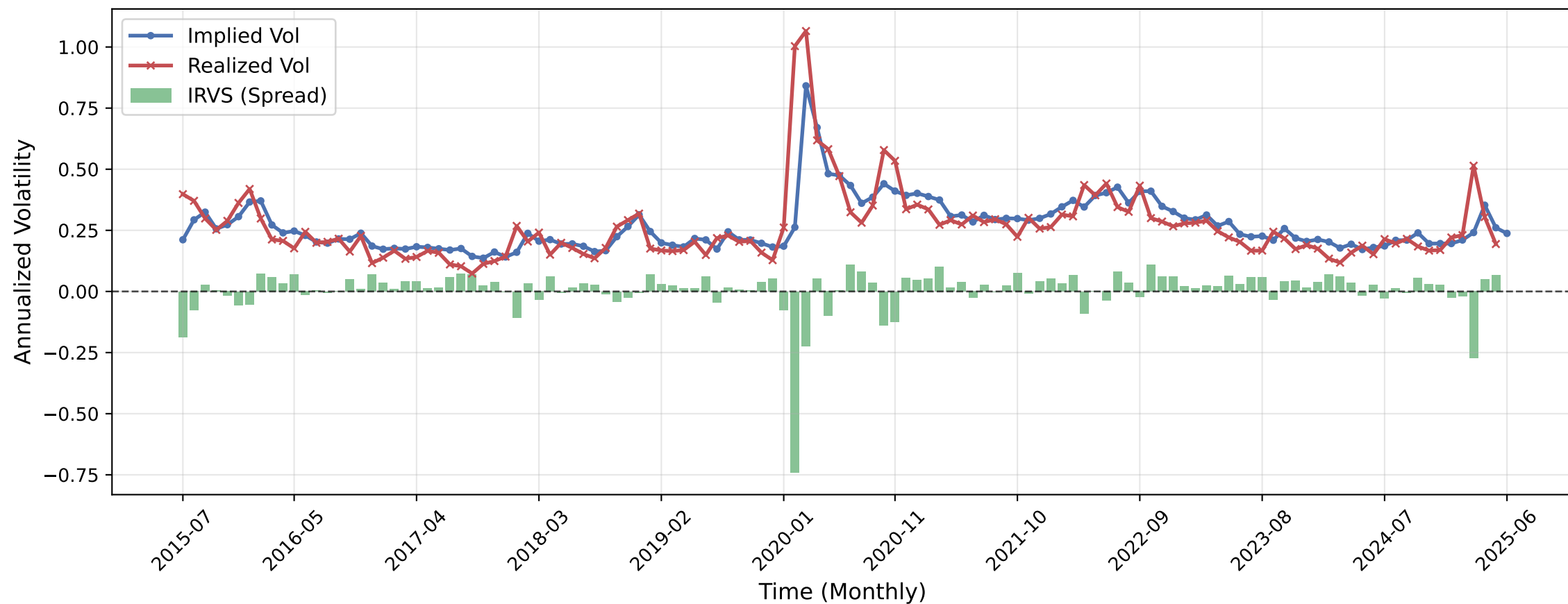


# IRVS Analysis: SPY vs XLE

## Panel 1: SPY Underlying

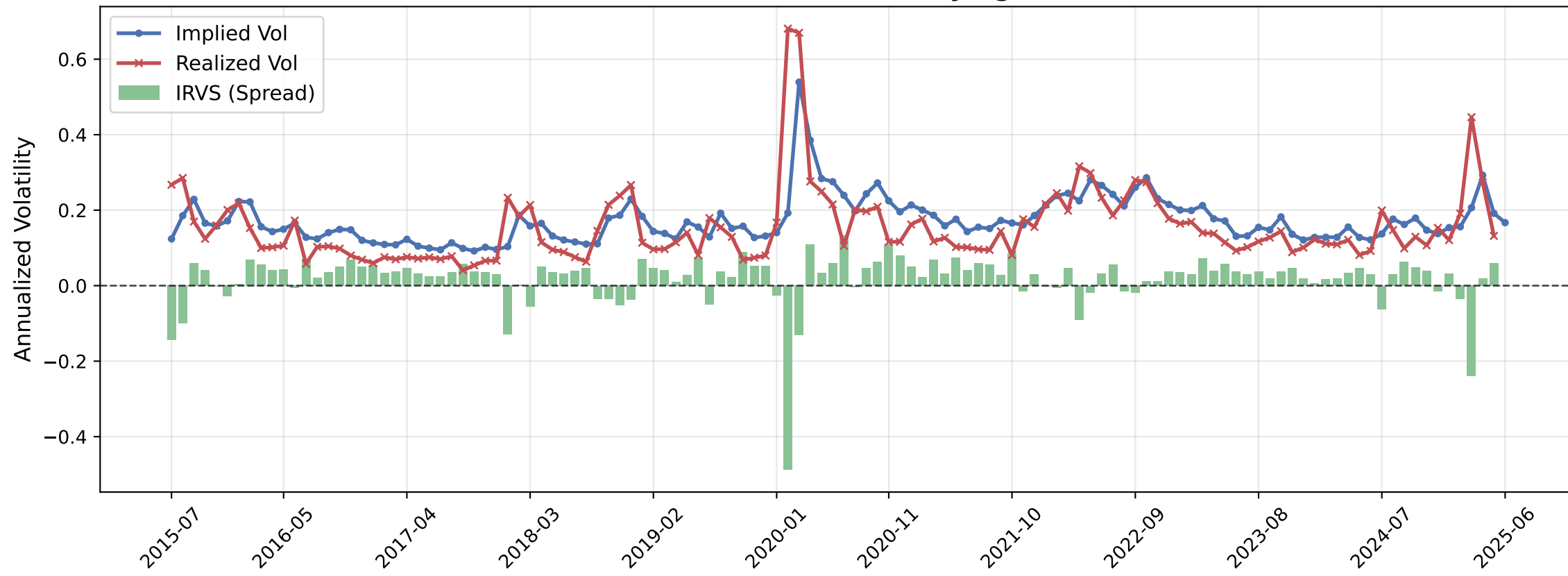


## Panel 2: XLE

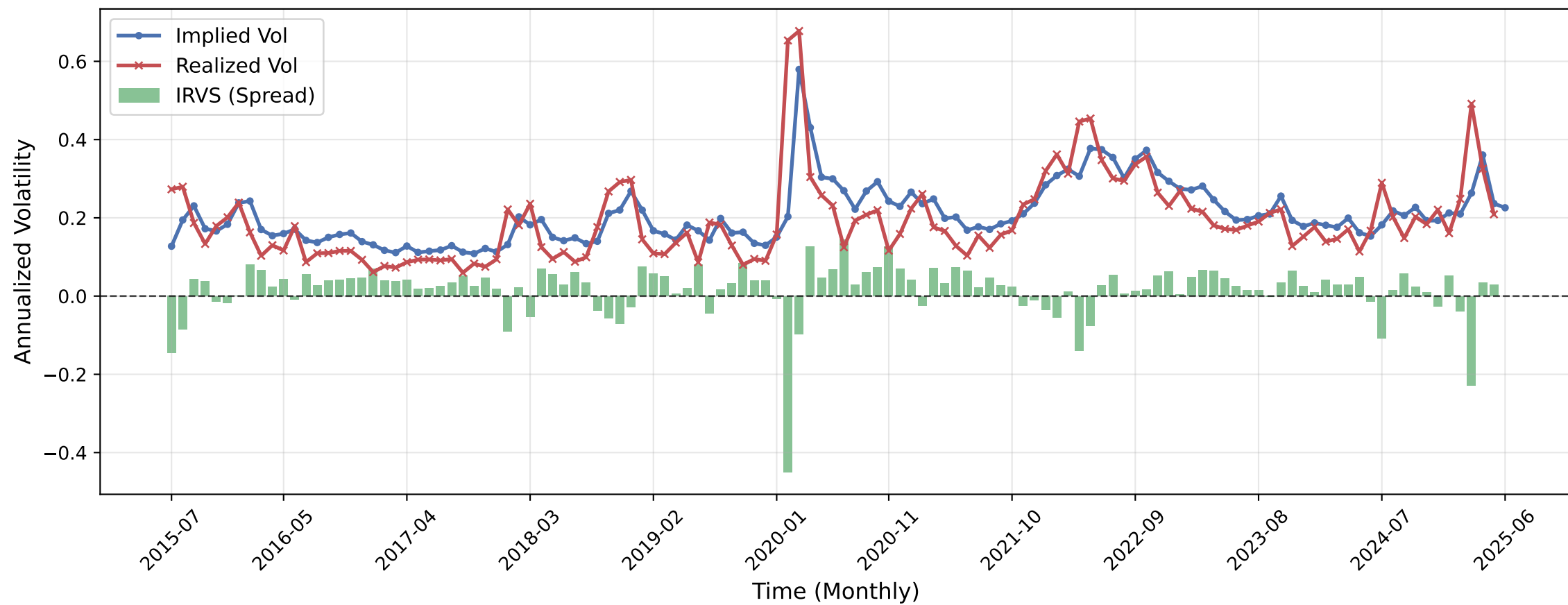


# IRVS Analysis: SPY vs XLY

## Panel 1: SPY Underlying

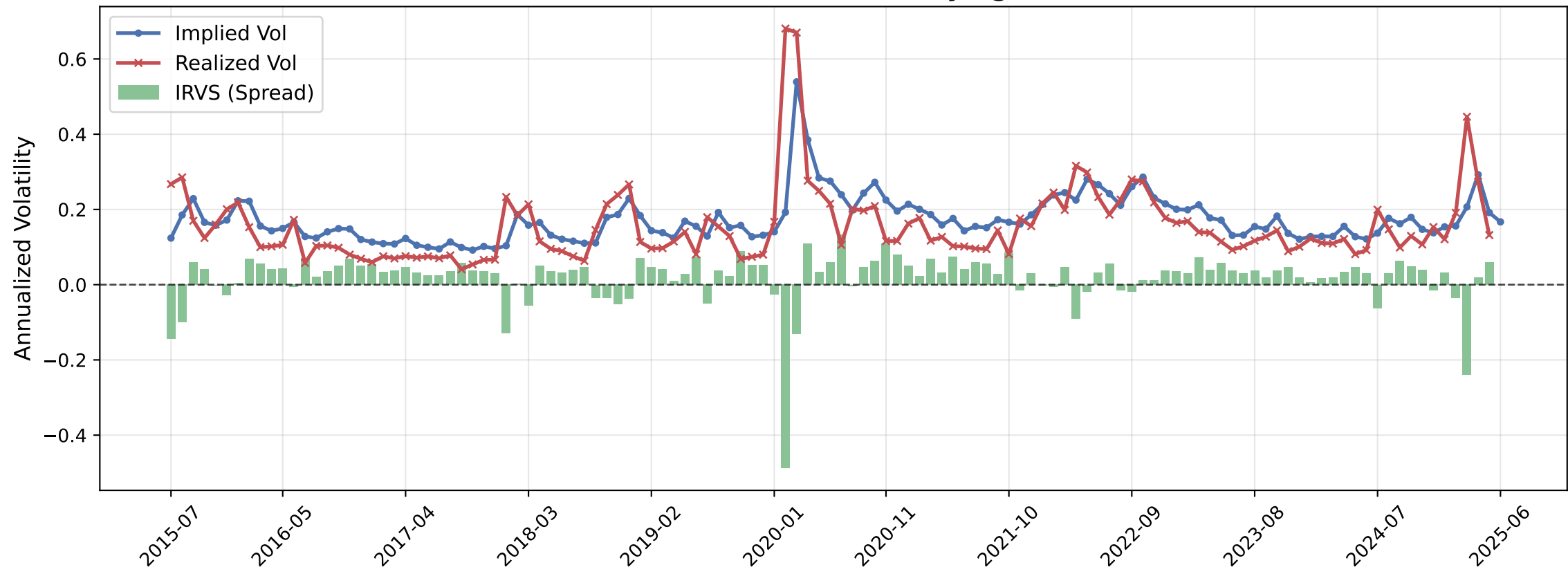


## Panel 2: XLY

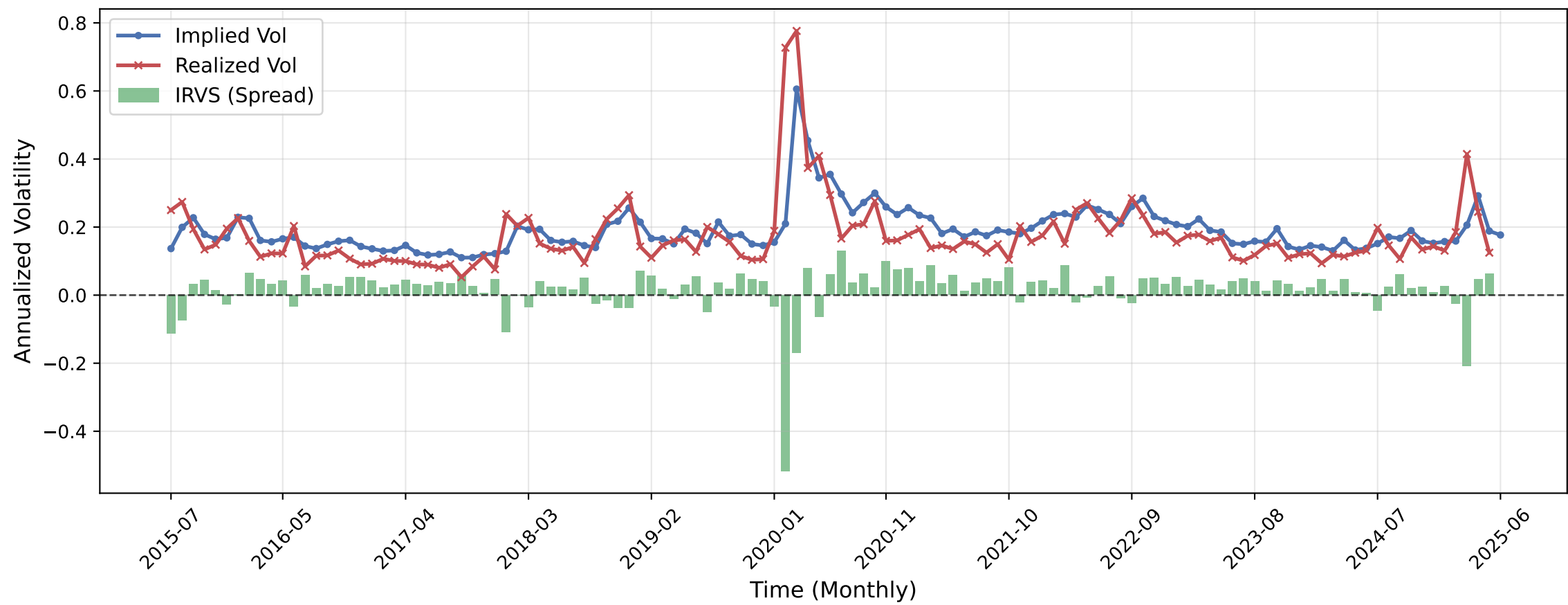


# IRVS Analysis: SPY vs XLI

## Panel 1: SPY Underlying

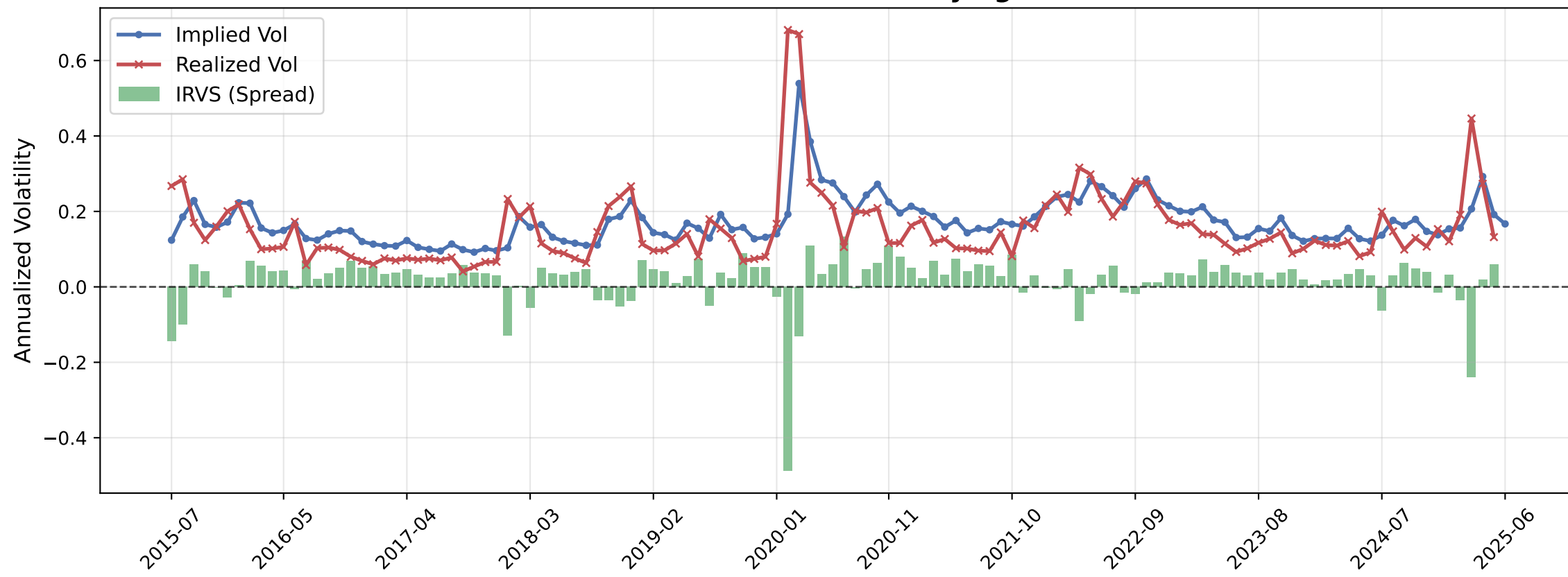


## Panel 2: XLI

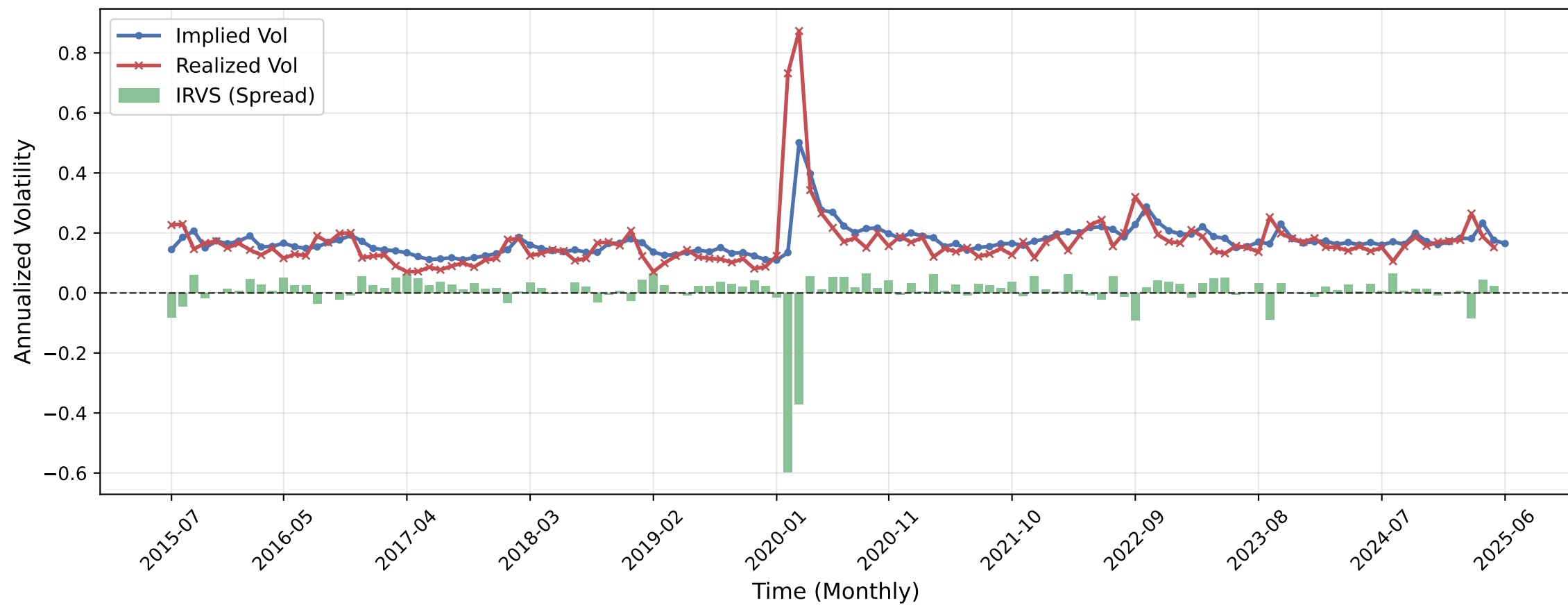


# IRVS Analysis: SPY vs XLU

## Panel 1: SPY Underlying

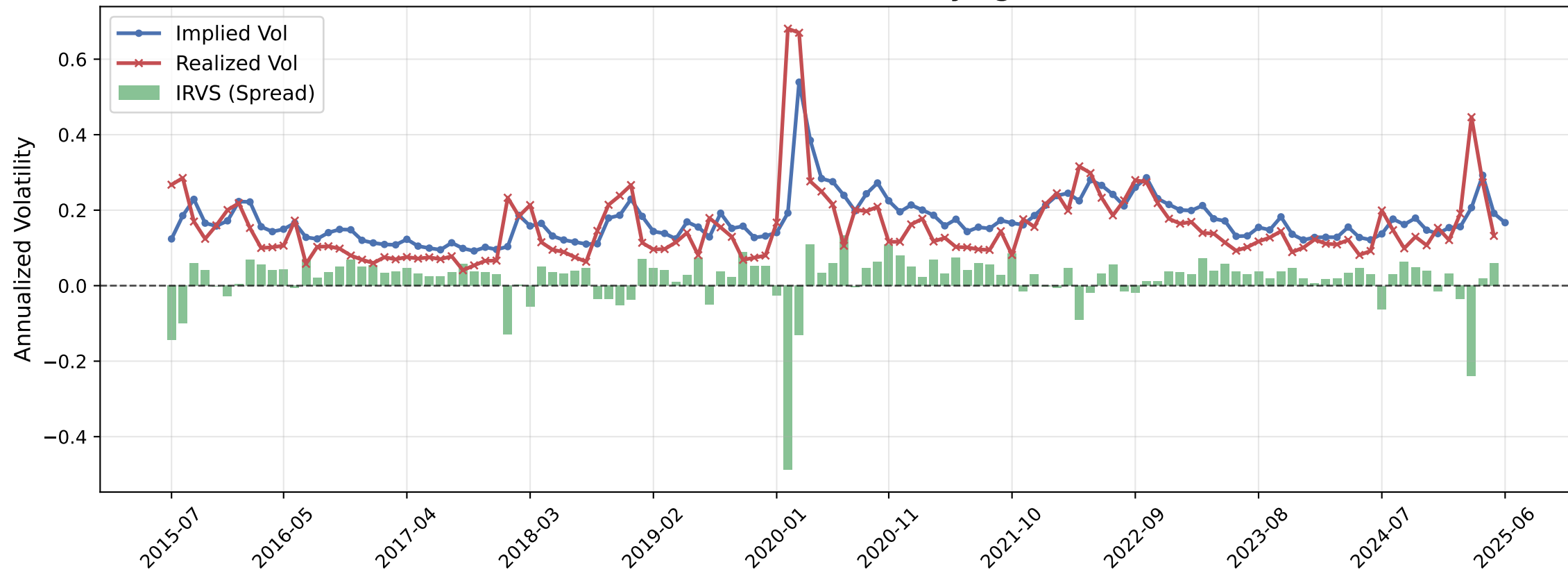


## Panel 2: XLU

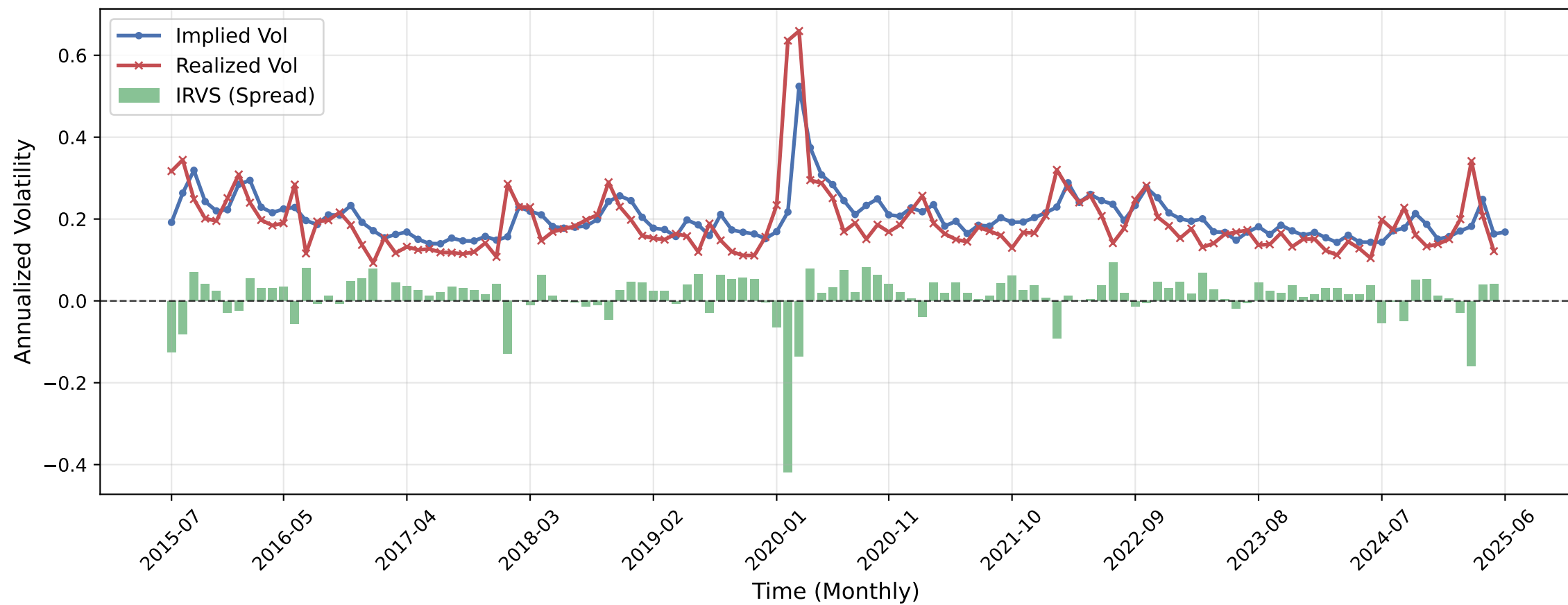


# IRVS Analysis: SPY vs EEM

## Panel 1: SPY Underlying

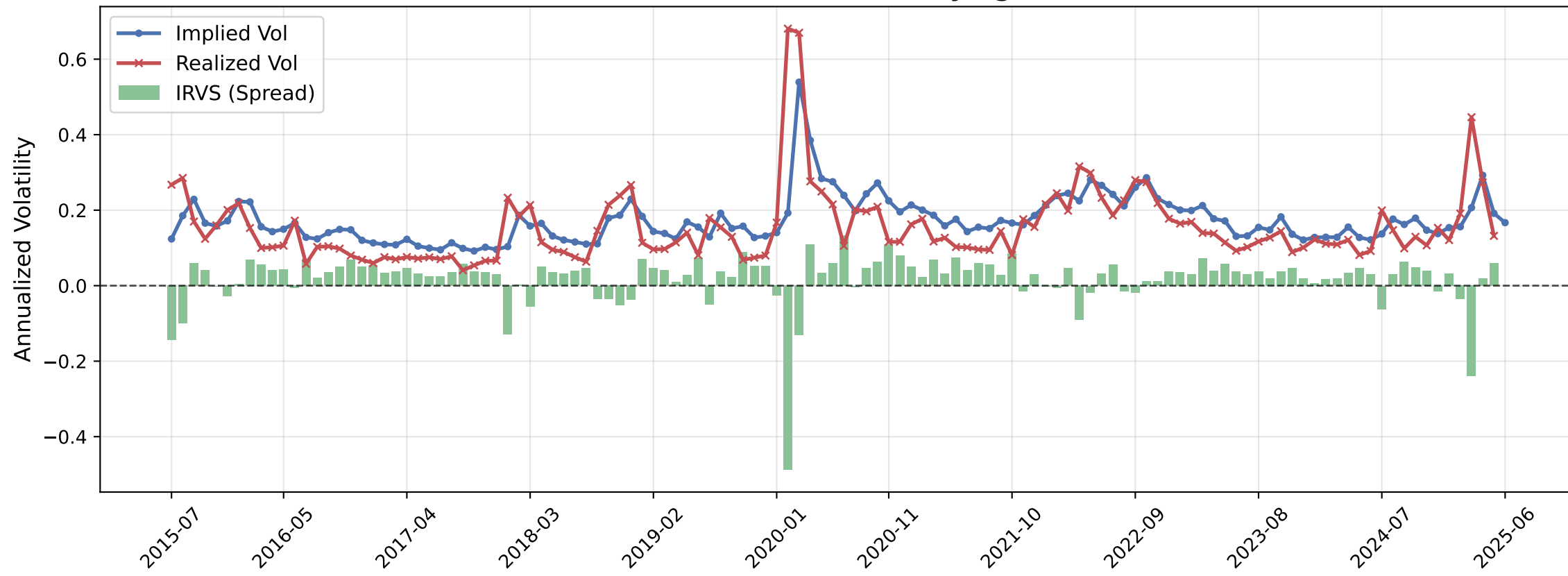


## Panel 2: EEM

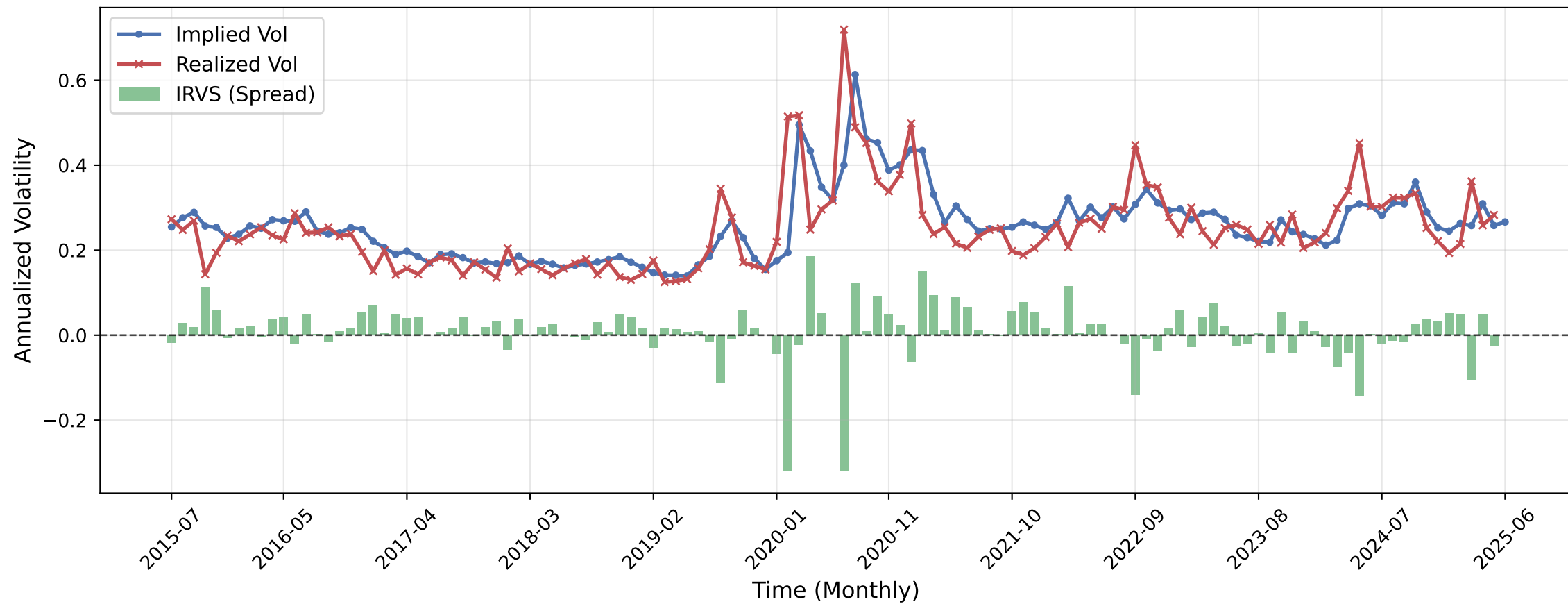


# IRVS Analysis: SPY vs SLV

## Panel 1: SPY Underlying



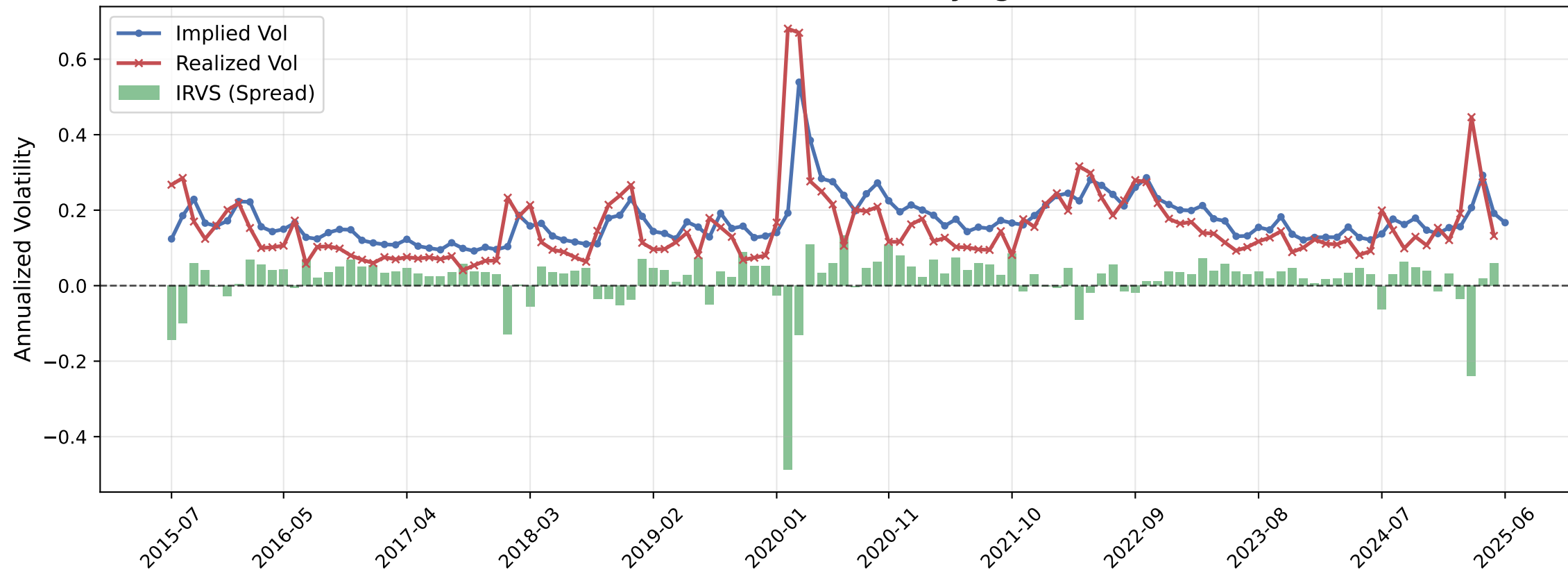
## Panel 2: SLV



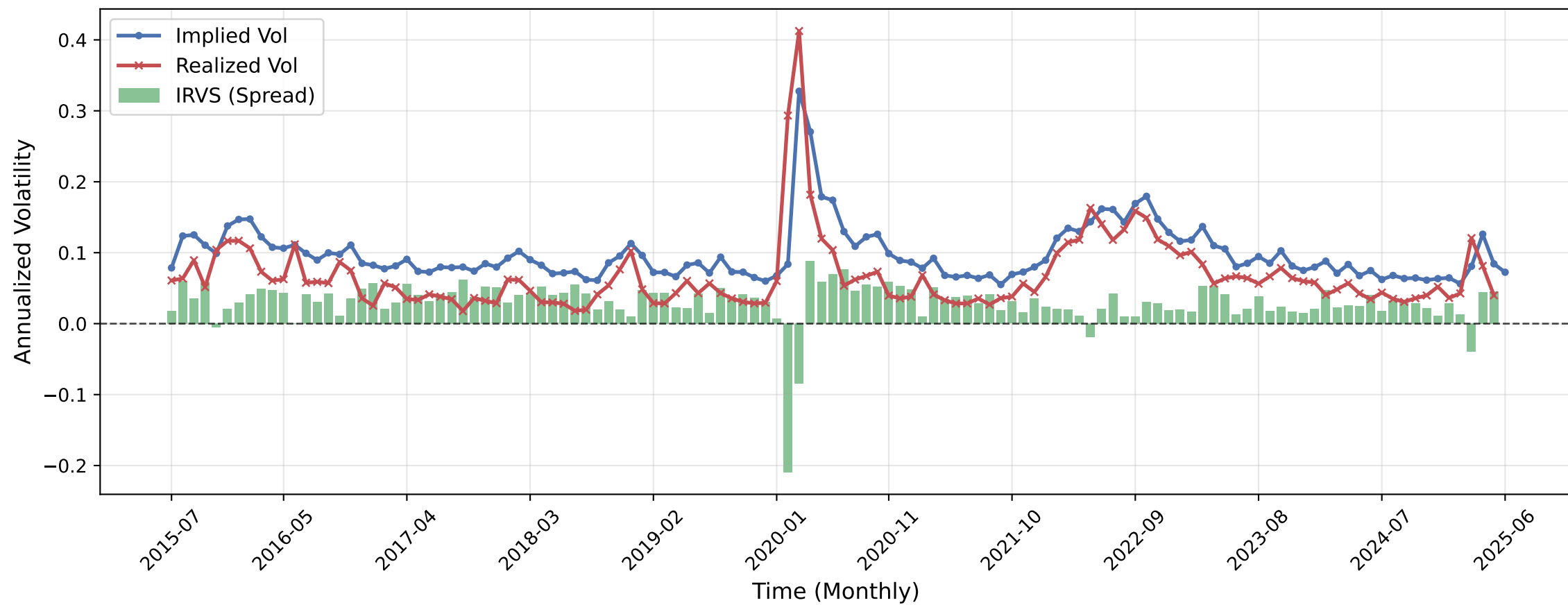


# IRVS Analysis: SPY vs HYG

## Panel 1: SPY Underlying

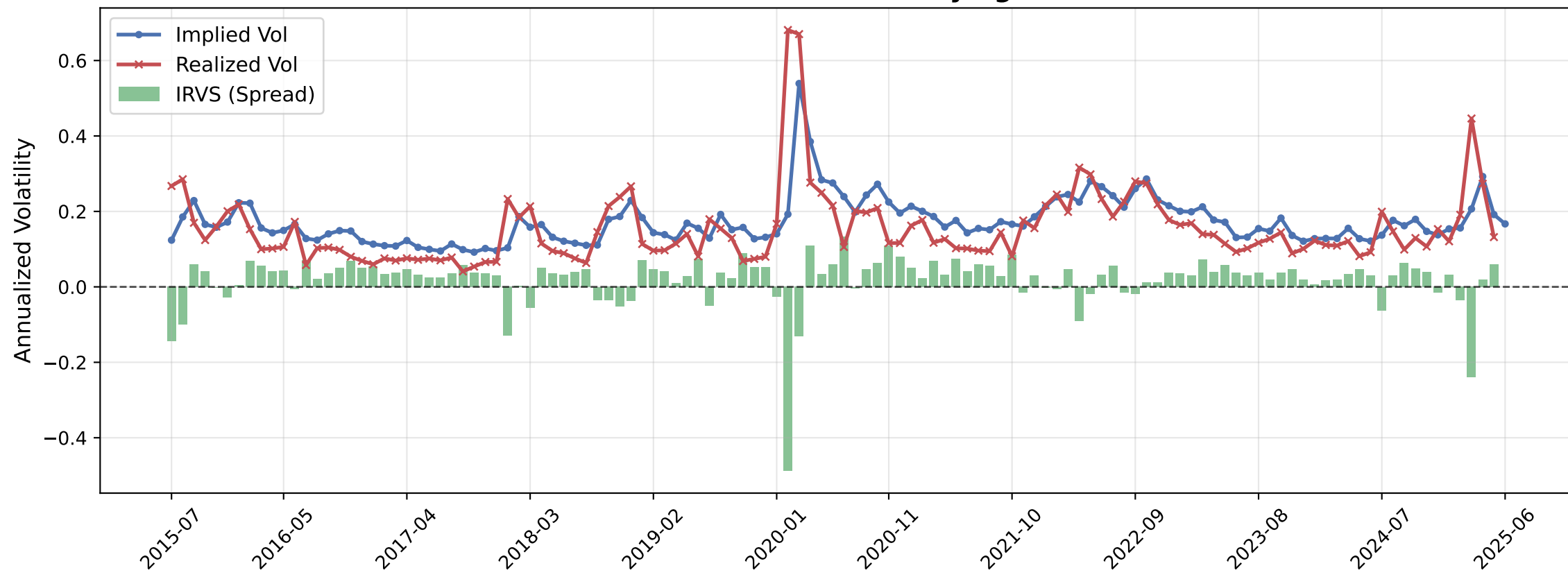


## Panel 2: HYG

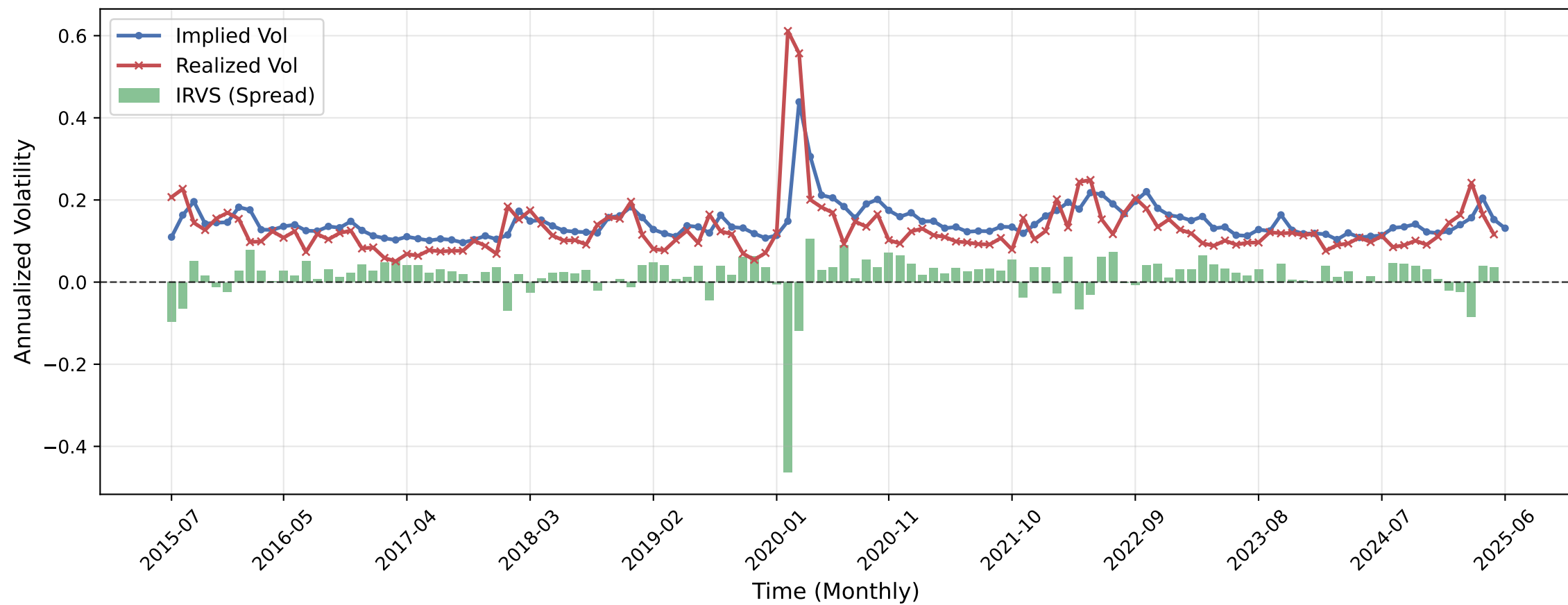


# IRVS Analysis: SPY vs XLP

## Panel 1: SPY Underlying

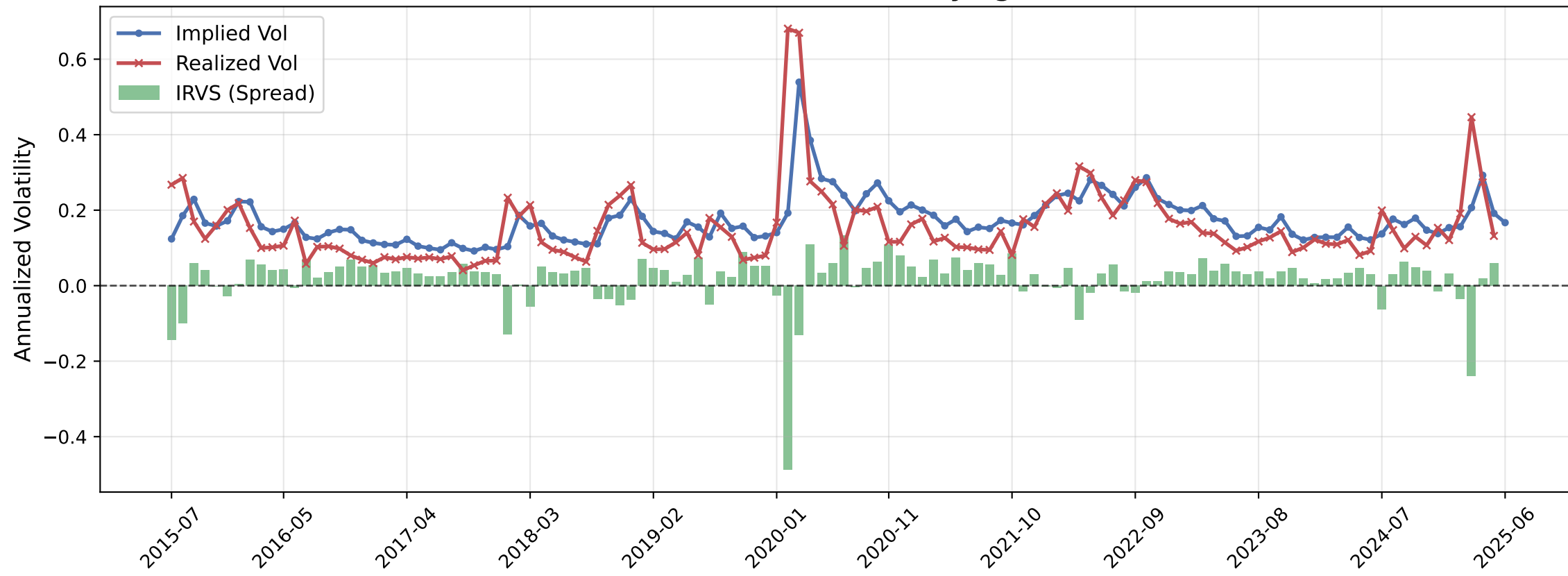


## Panel 2: XLP

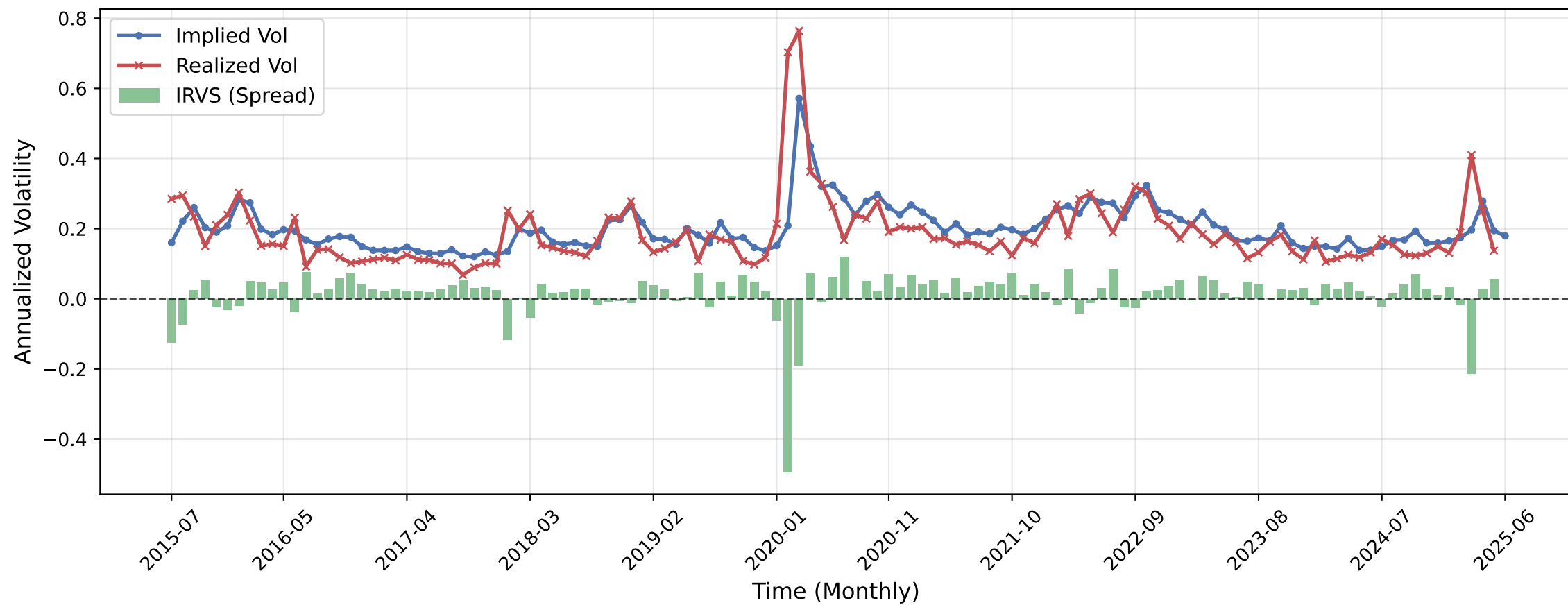


# IRVS Analysis: SPY vs XLB

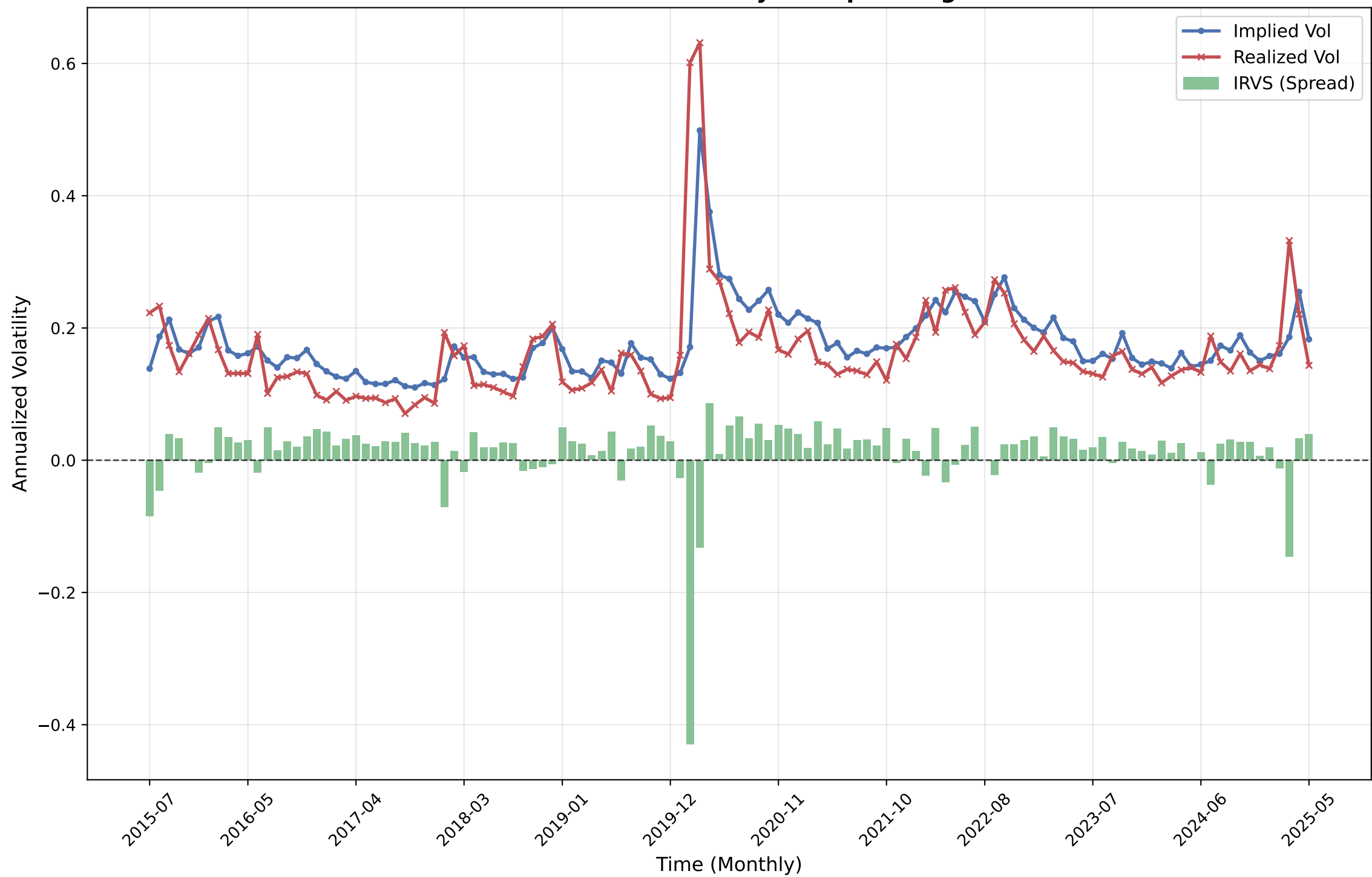
## Panel 1: SPY Underlying



## Panel 2: XLB



# IRVS Time Series Analysis: EqualWeight



# Cross-Sectional Analysis: IV, RV, and IRVS Spreads by Ticker

Figure 3: Average Implied Volatility by Ticker

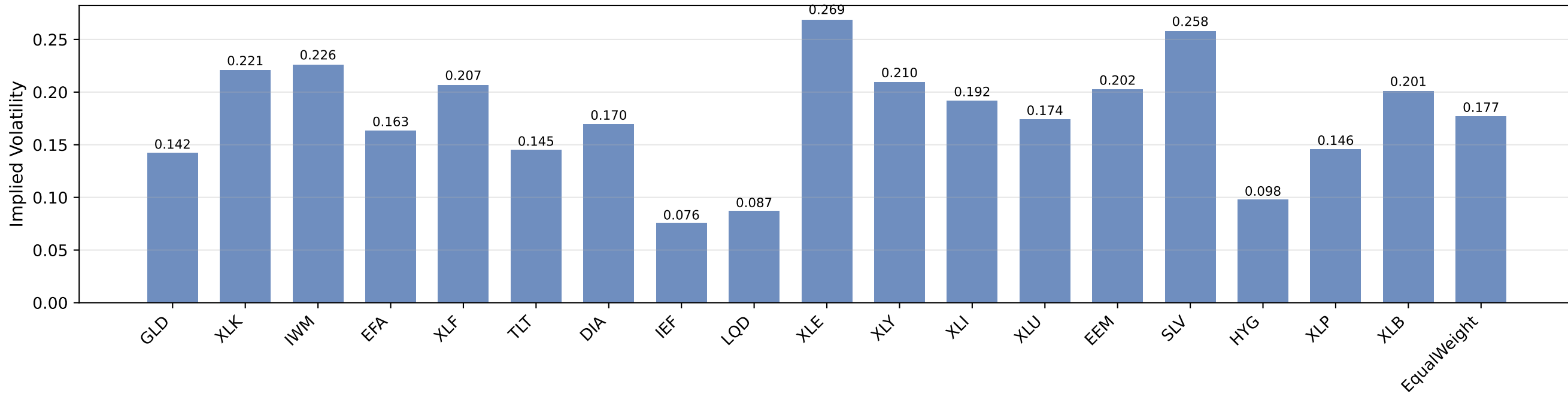


Figure 4: Average Realized Volatility by Ticker

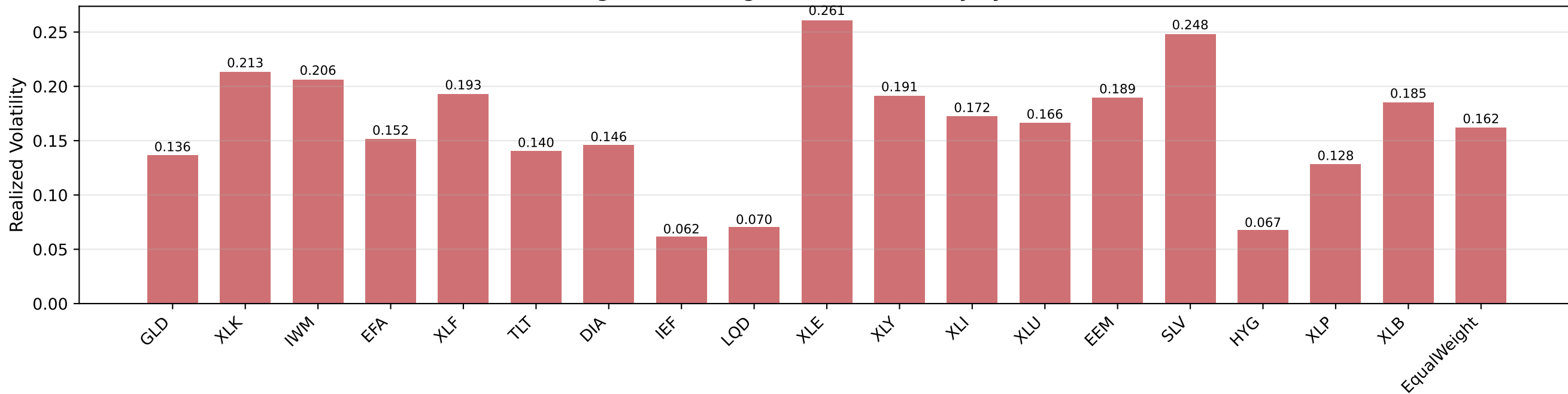


Figure 5: Average IRVS Spread (IV - RV) by Ticker

