

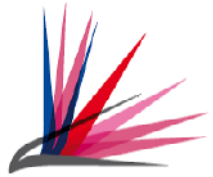


# **LIQUID CAPITAL** SECURITIES

HOW MARKETS AND INVESTORS HAVE CHANGED: SHORT-  
TERM MONEY FLOW, DERIVATIVES AND VOLATILITY

VIENNA, 18<sup>th</sup> NOVEMBER 2009

MAX BUTTI, CAIA  
STRATEGIC DEVELOPMENT DIRECTOR



## SUMMARY

- SHORT TERM MONEY FLOWS: WHAT ARE THEY TELLING US
- EQUITY VOLATILITY: HAS SOMETHING MAJOR HAPPENED?
- VOLUMES AND LIQUIDITY
- CONCLUSIONS



# COMMITMENT OF TRADERS

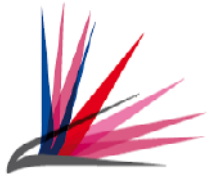
COMPREHENSIVE REPORT OF HEDGING AND SPECULATION IN REGULATED FUTURES MARKETS

COMMERCIAL IF THE TRADER USES FUTURES CONTRACTS IN THAT PARTICULAR COMMODITY FOR HEDGING

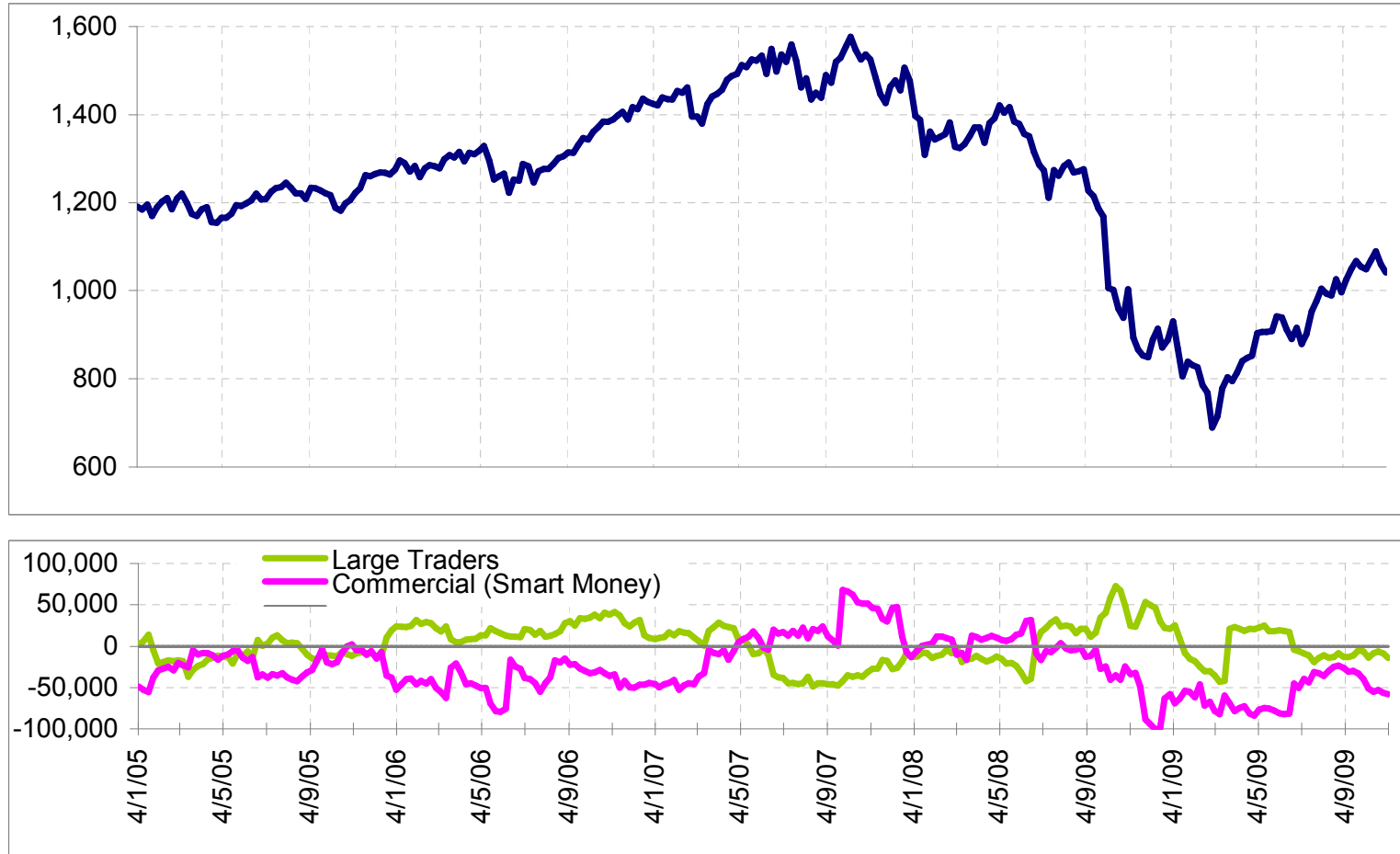
NON COMMERCIAL IN THE TRADER USES FUTURES TO GAIN EXPOSURE (SMART MONEY)

DOES NOT INCLUDE RETAIL INVESTORS

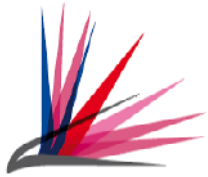
IT IS THE BEST INDICATION OF MONEY FLOW IN DERIVATIVES



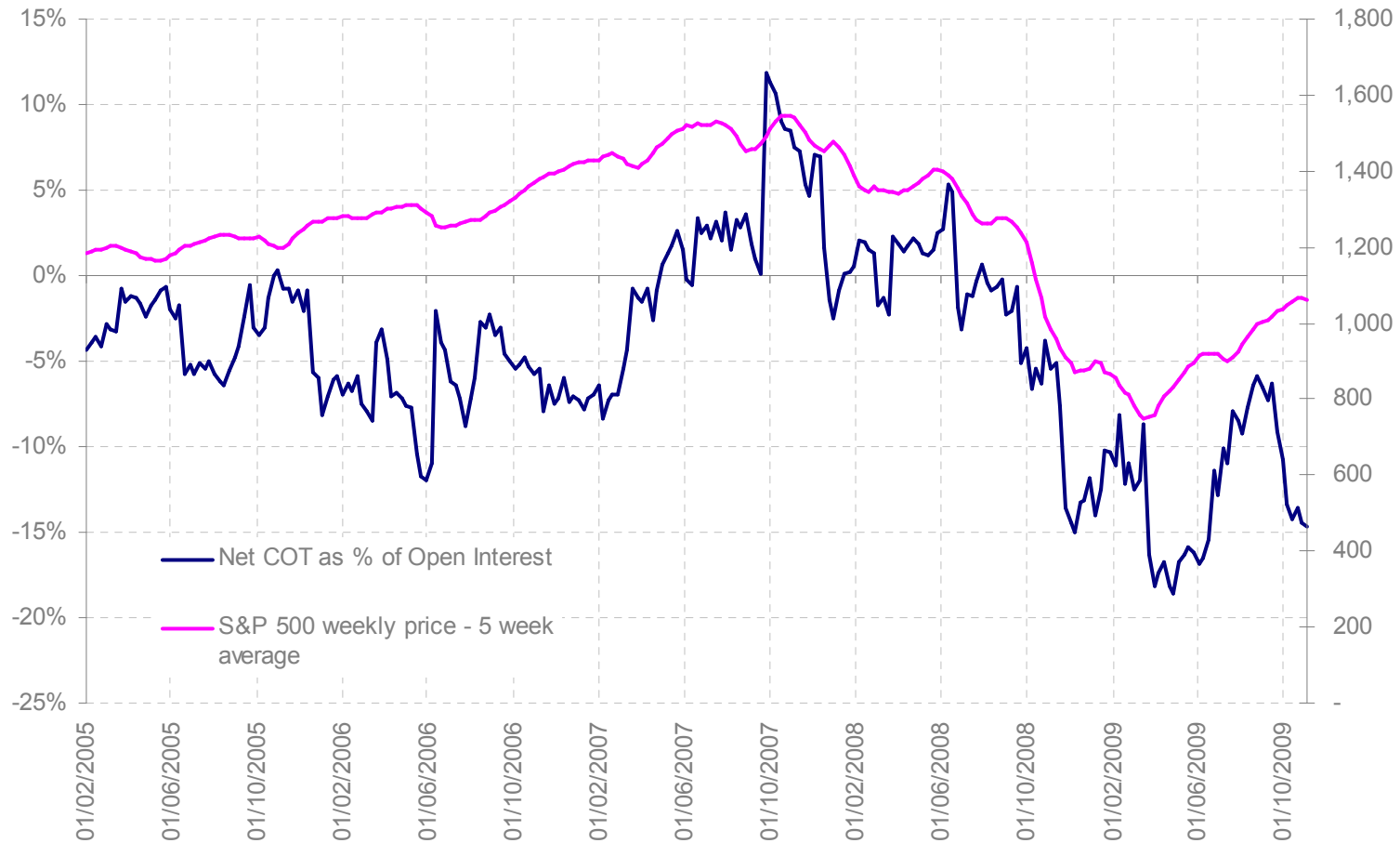
# S&P 500 – COMMITMENT OF TRADERS



SOURCE: CFTC



# S&P 500 – COMMITMENT OF TRADERS





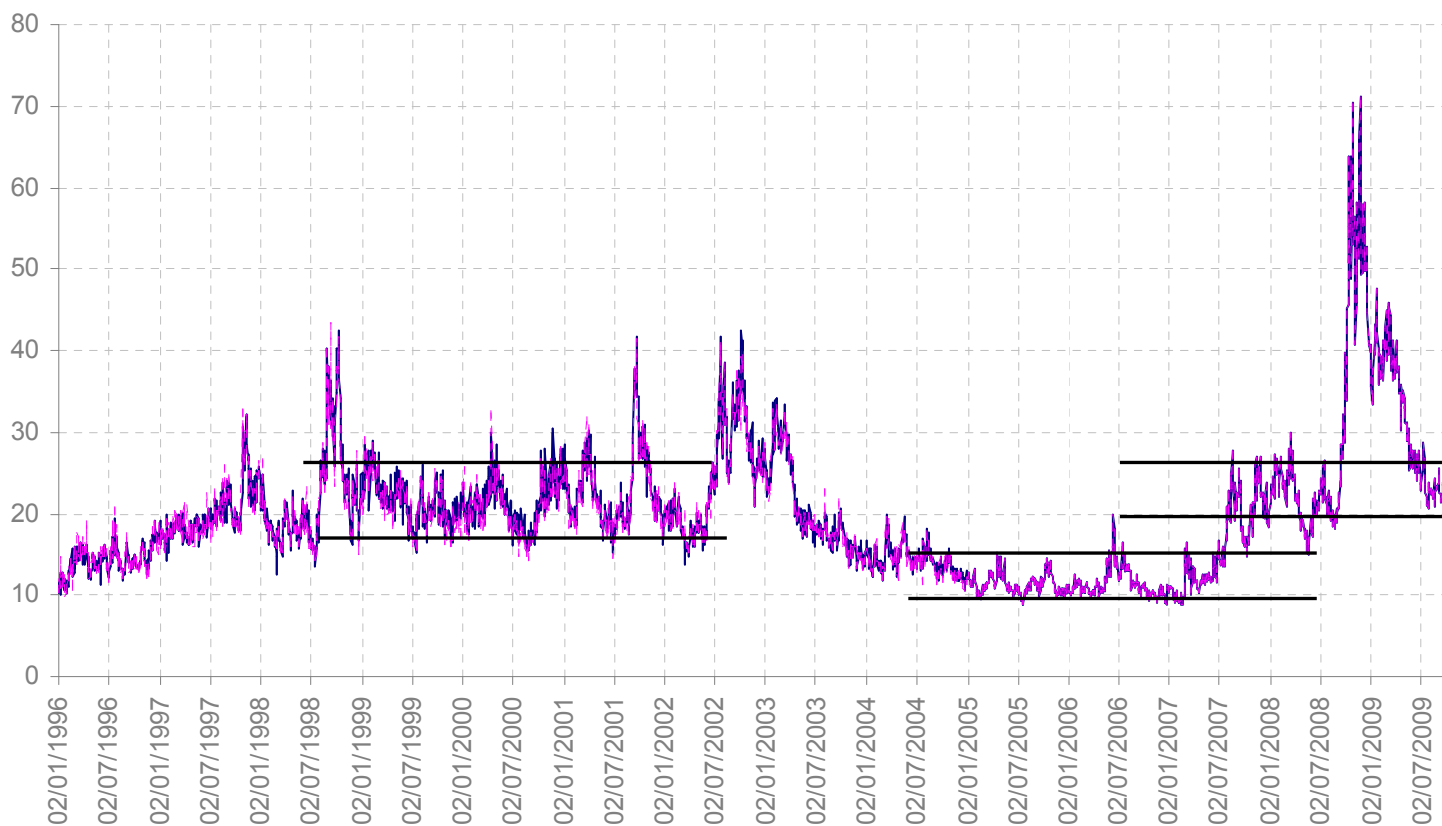
# S&P 500 – COMMITMENT OF TRADERS





# S&P 500 INDEX

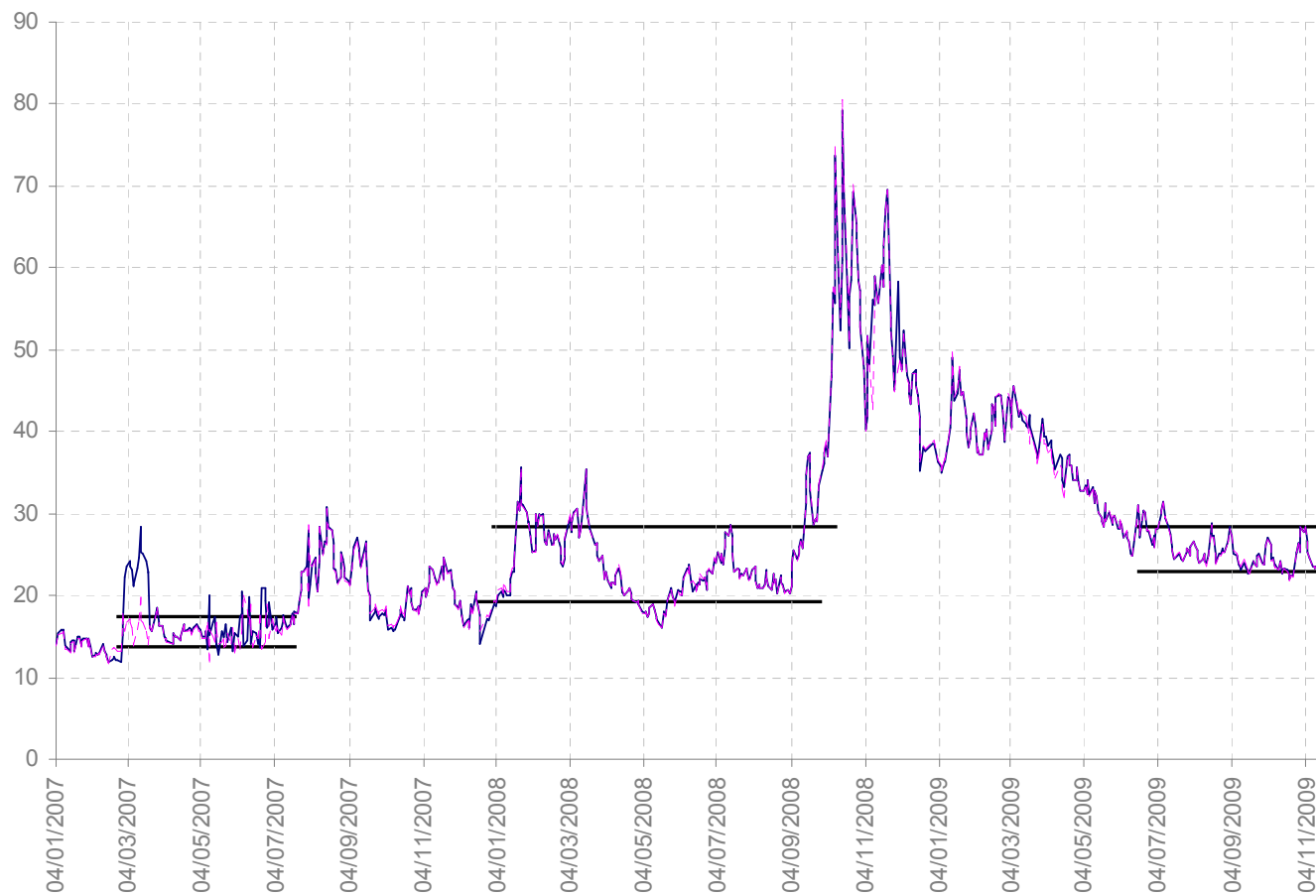
Historical Implied Volatility 1996-2009





# EUROSTOXX 50 INDEX

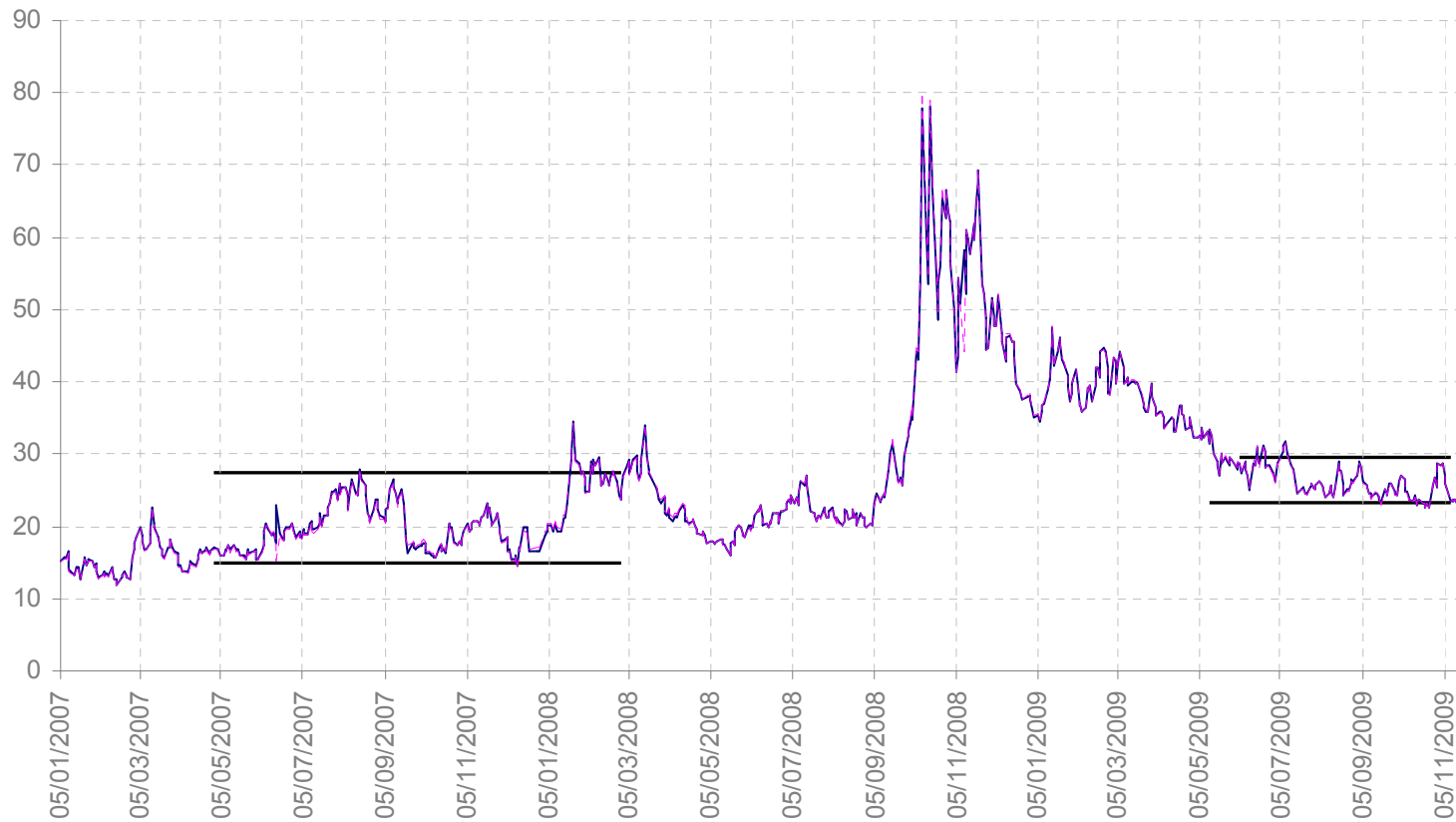
Historical Implied Volatility 2007-2009





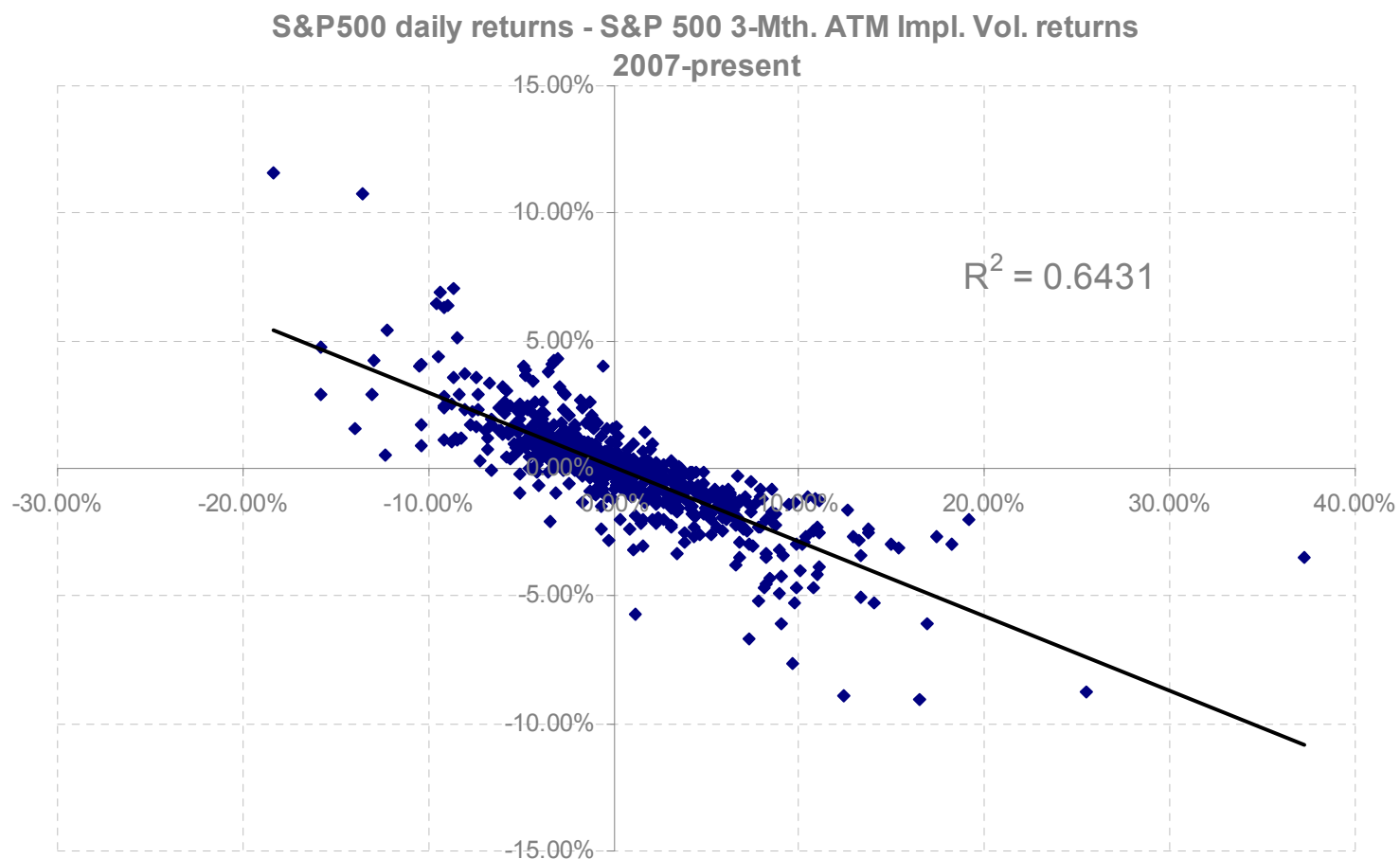
# DAX INDEX

### Historical Implied Volatility 2007-2009





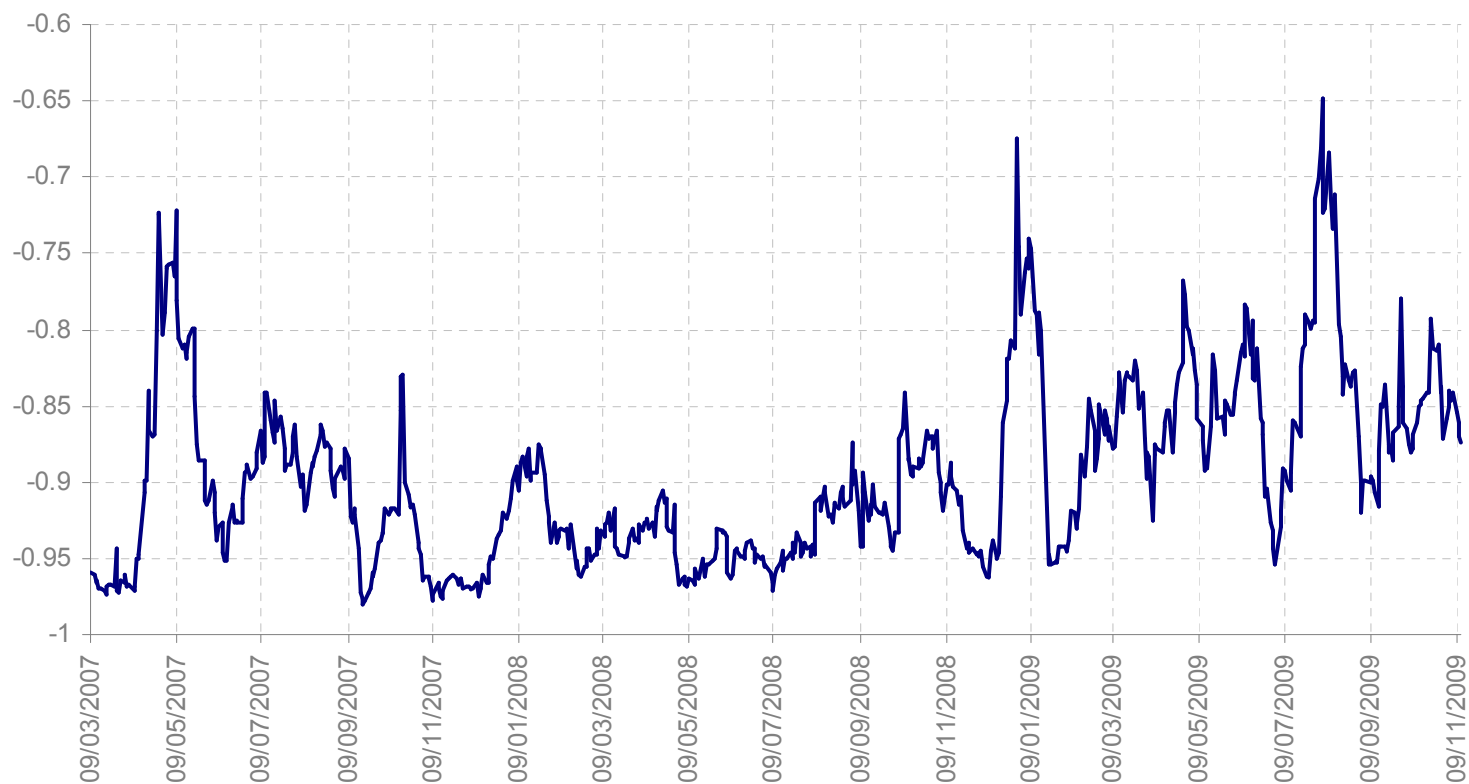
# DOES VOLATILITY EXPLAIN RETURNS?





# DOES VOLATILITY EXPLAIN RETURNS?

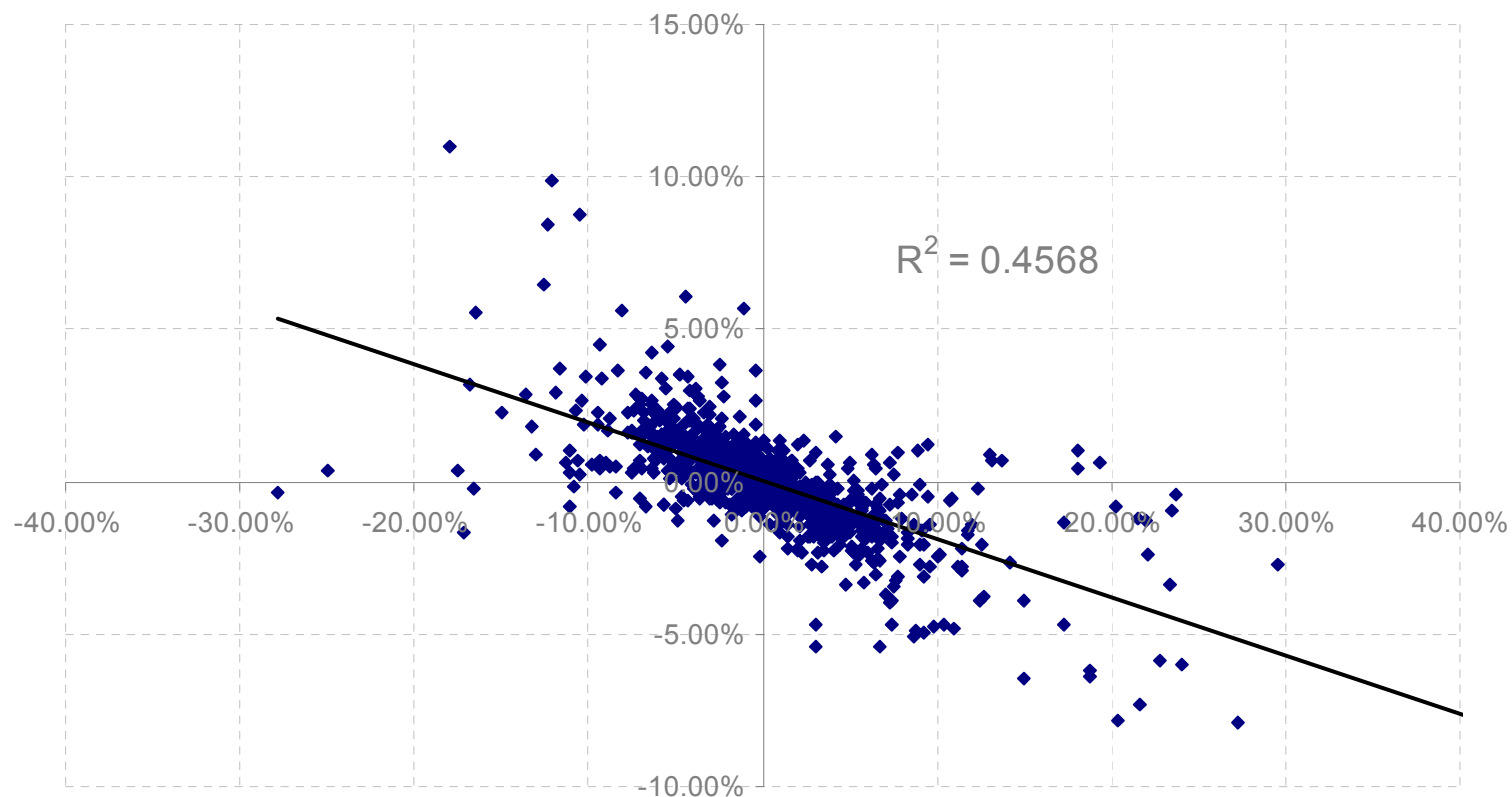
S&P 500 daily returns - S&P 500 3-Mth. ATM Impl. Vol. return 20d rolling correlation 2007-present





# DOES VOLATILITY EXPLAIN RETURNS?

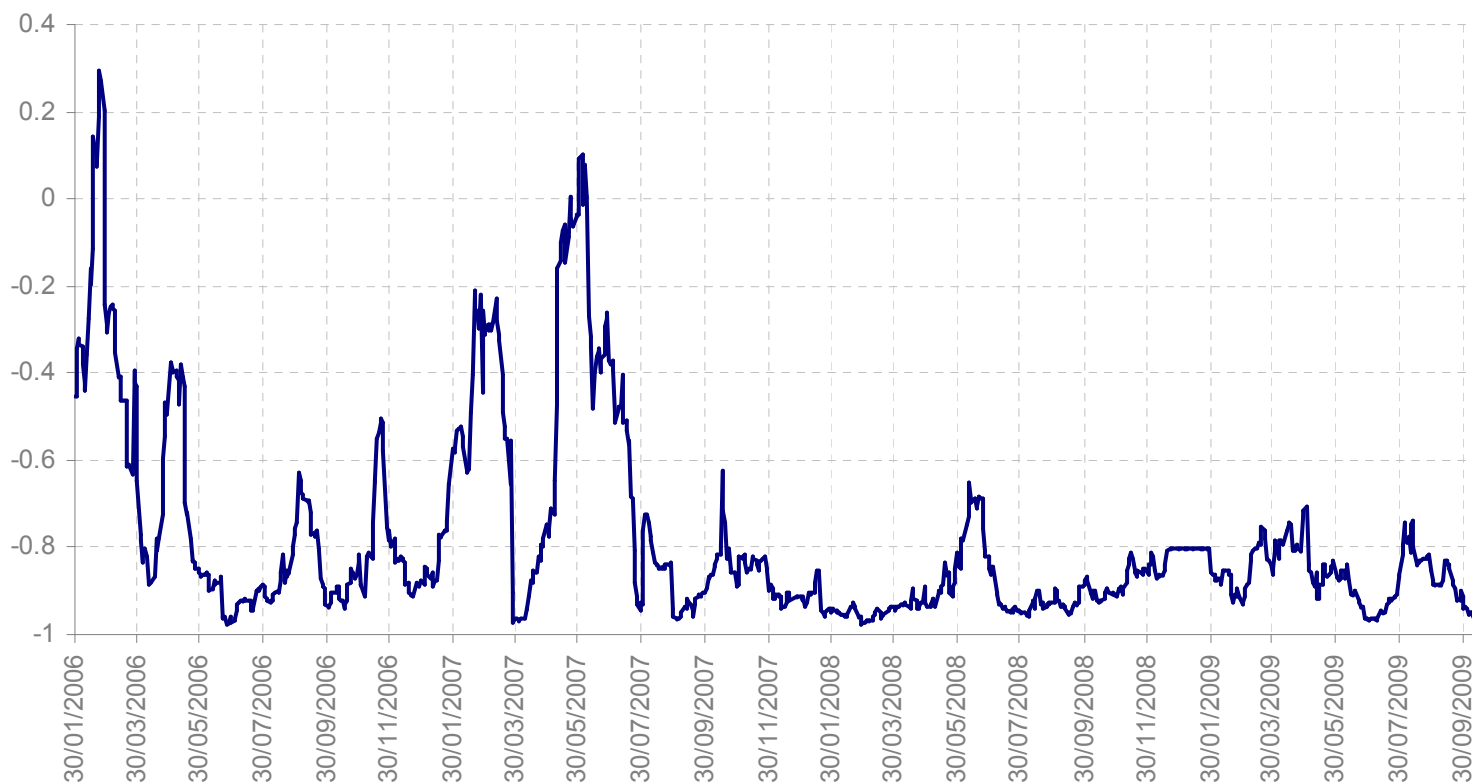
Eurostoxx 50 daily returns - Eurostoxx 50 3-Mth. ATM Impl. Vol. returns  
2007-present

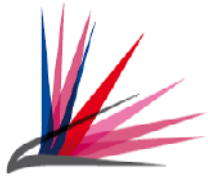




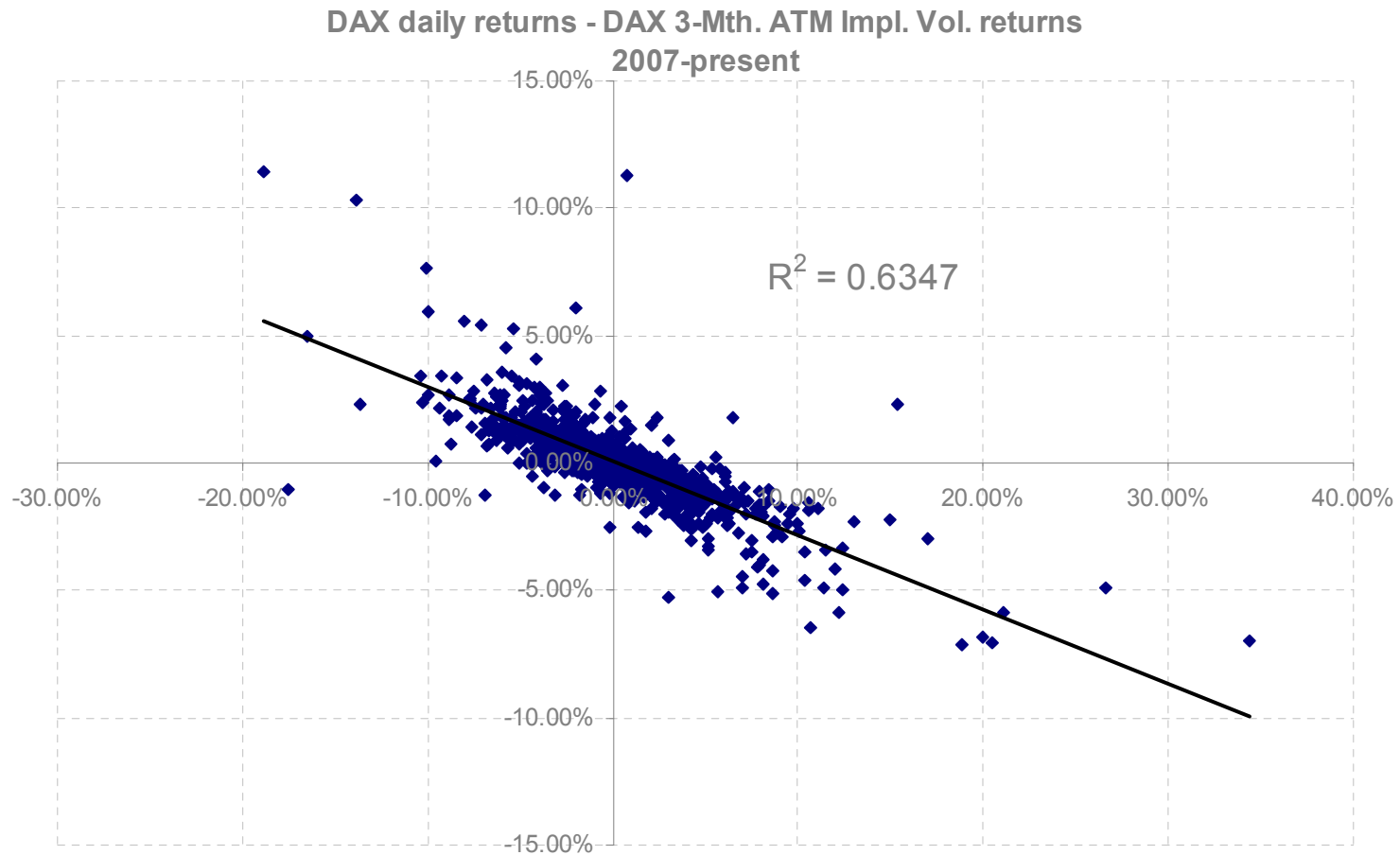
# DOES VOLATILITY EXPLAIN RETURNS?

Eurostoxx 50 daily returns - Eurostoxx 3-Mth. ATM Impl. Vol. return 20d rolling correlation 2007-present





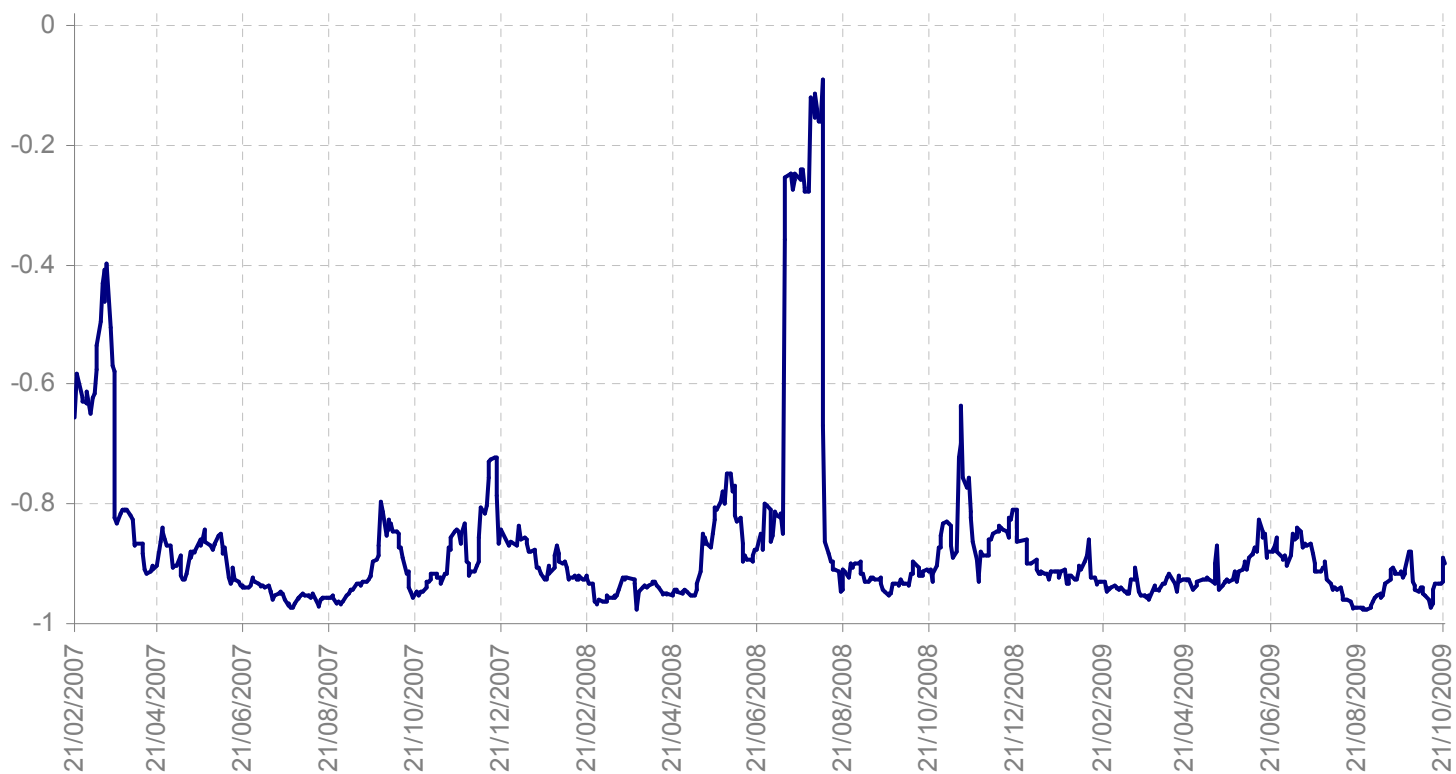
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# DOES VOLATILITY EXPLAIN RETURNS?

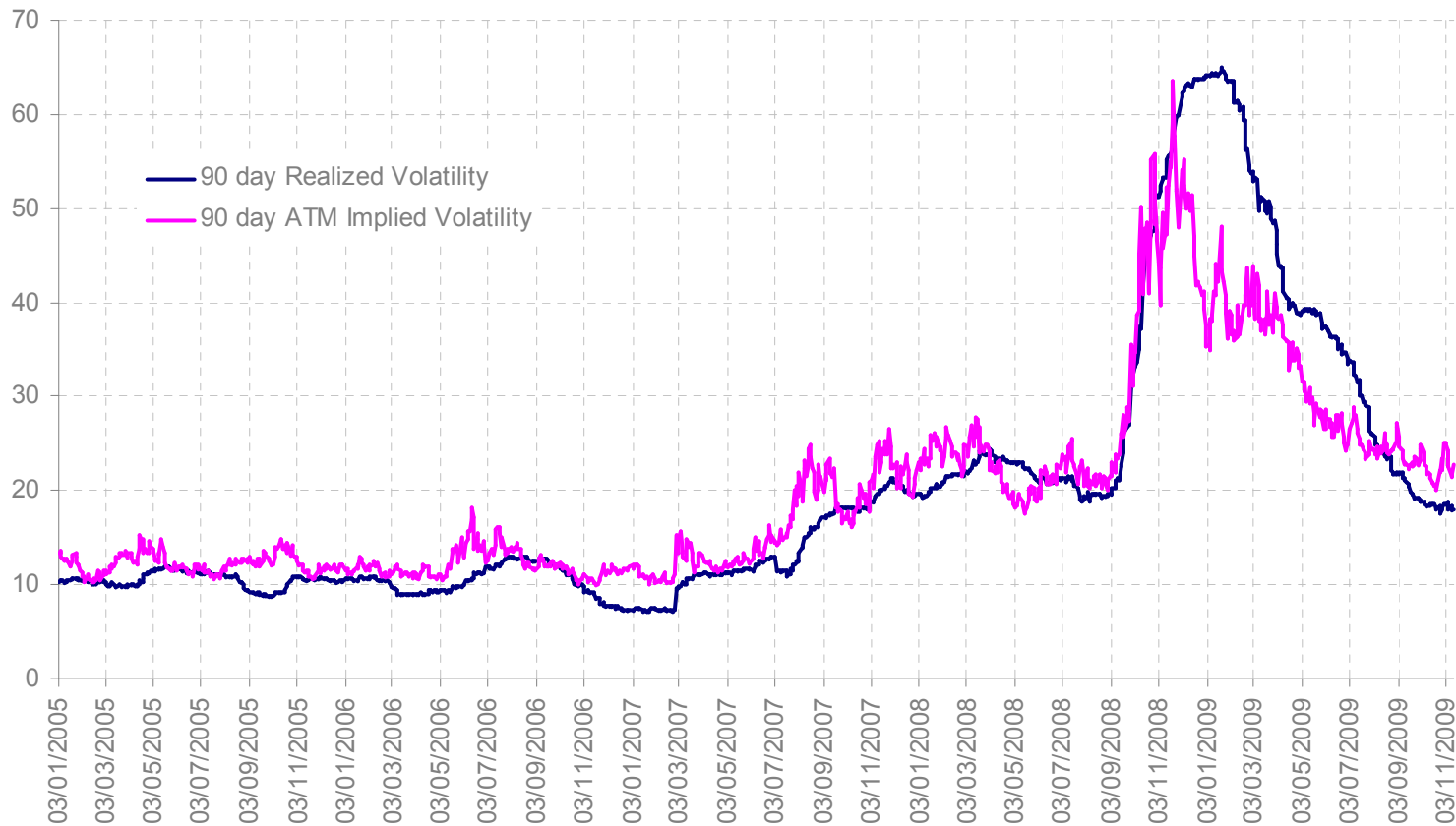
DAX daily returns - DAX 3-Mth. ATM Impl. Vol. return 20d rolling correlation  
2007-present





# S&P 500 INDEX

Implied Volatility vs. Realized Volatility 2005-2009





# EUROSTOXX 50 INDEX

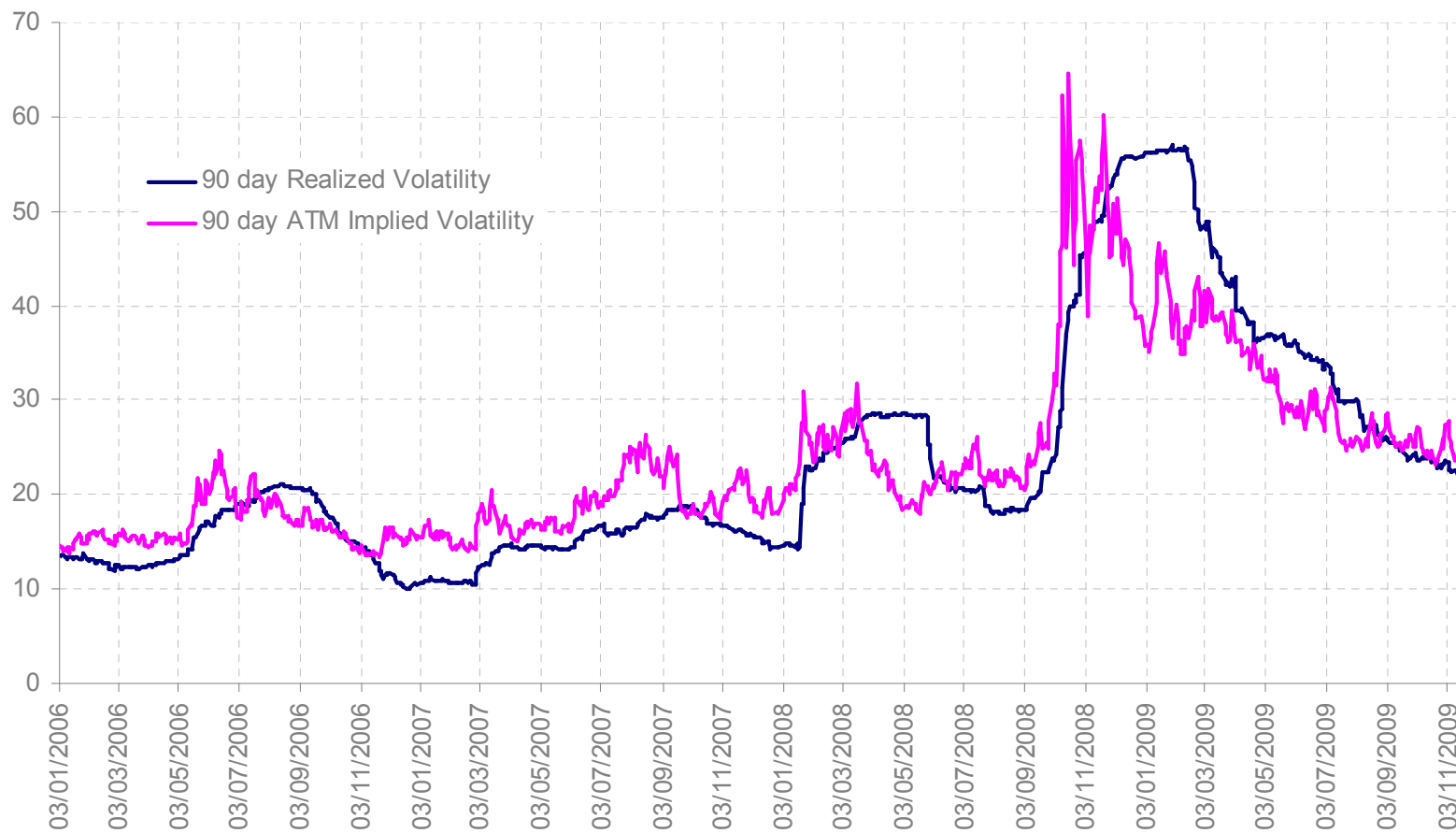
Implied Volatility vs. Realized Volatility 2006-2009





# DAX INDEX

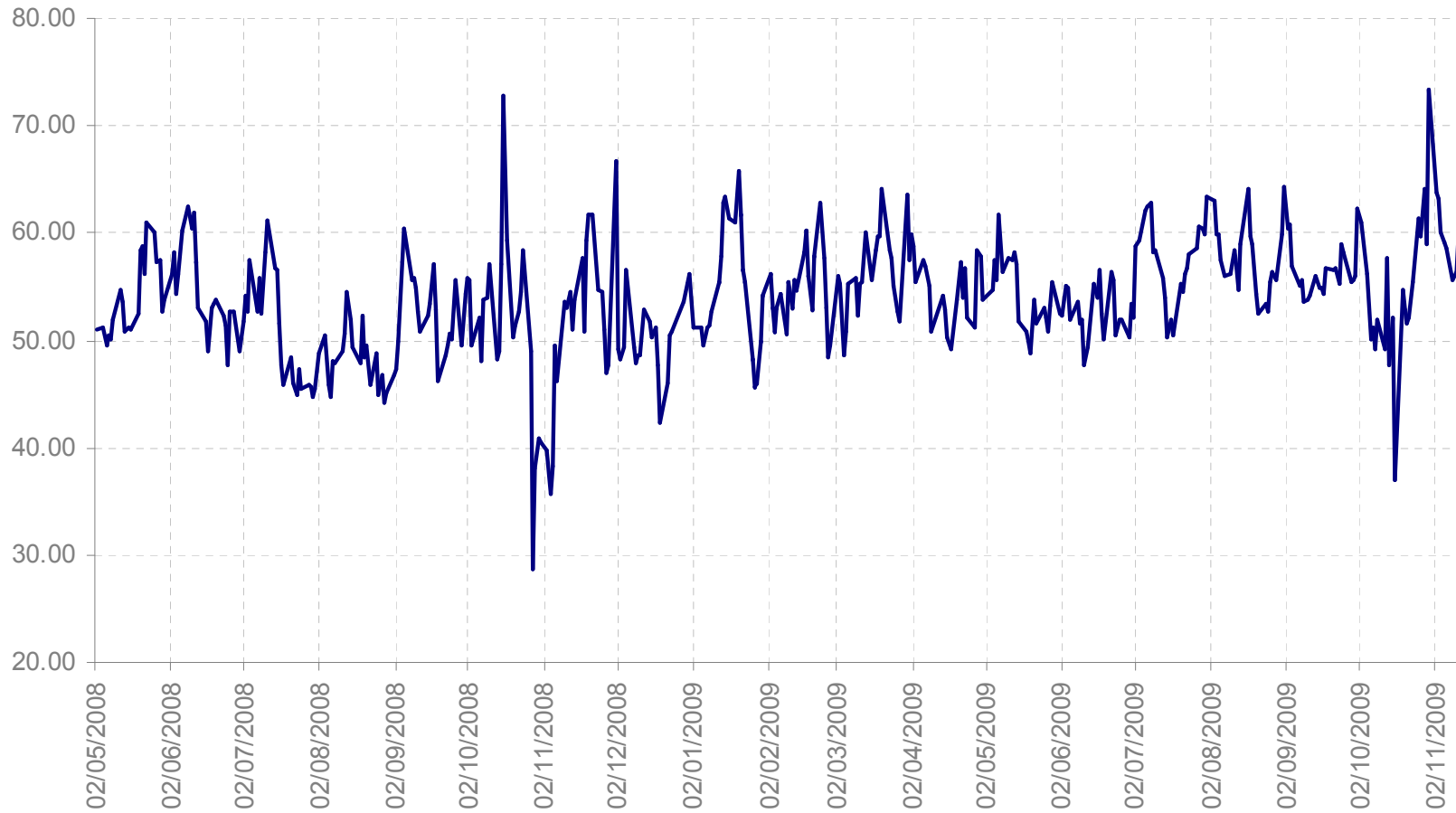
## Implied Volatility vs. Realized Volatility 2006-2009





# ARBITRAGE OPPORTUNITIES

### Eurostoxx - Implied Correlation Levels





# EUROSTOXX VOLATILITY ESTIMATE





# EUROSTOXX 50 INDEX

## Normalized 6M SKEW



SOURCE: LIQUID CAPITAL MARKETS



# DAX INDEX

## Normalized 6M SKEW

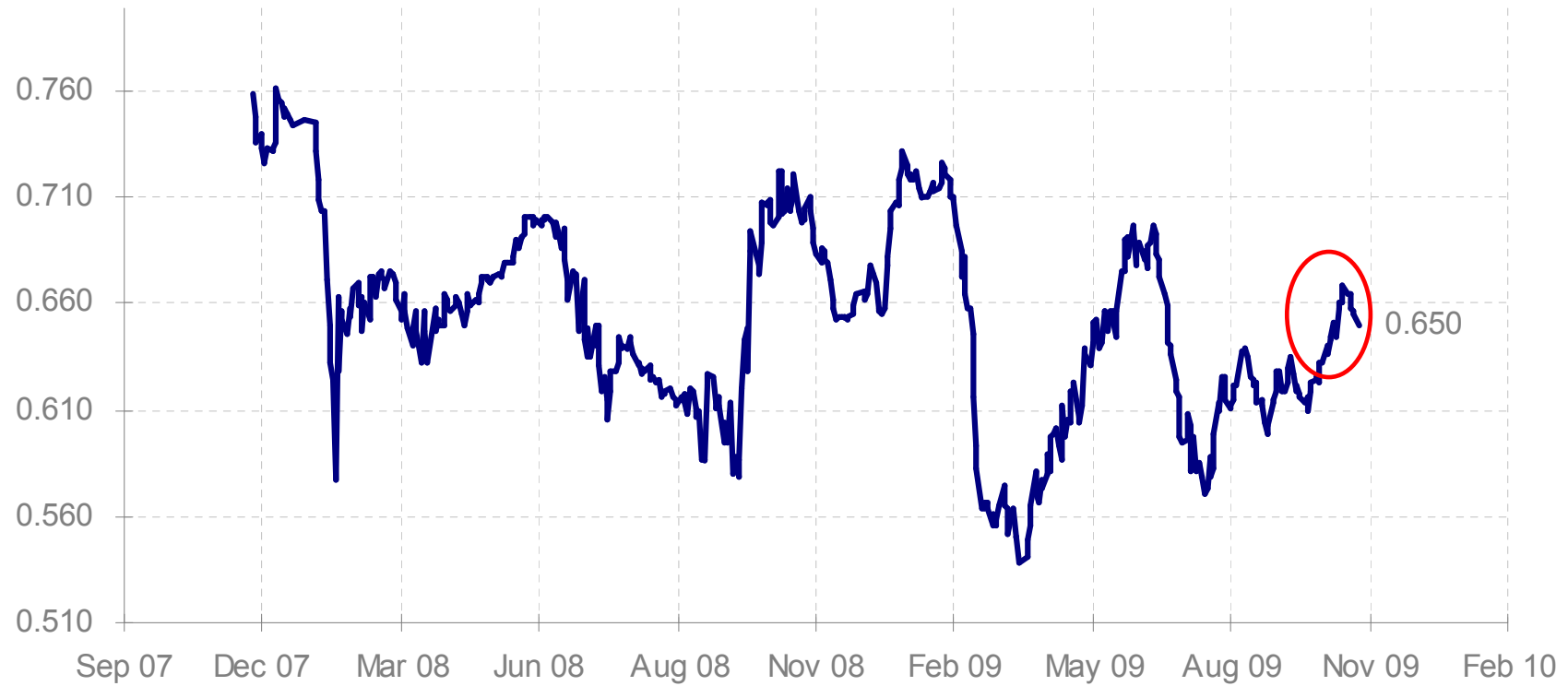


SOURCE: LIQUID CAPITAL MARKETS



# FTSE 100 INDEX

## Normalized 6M SKEW

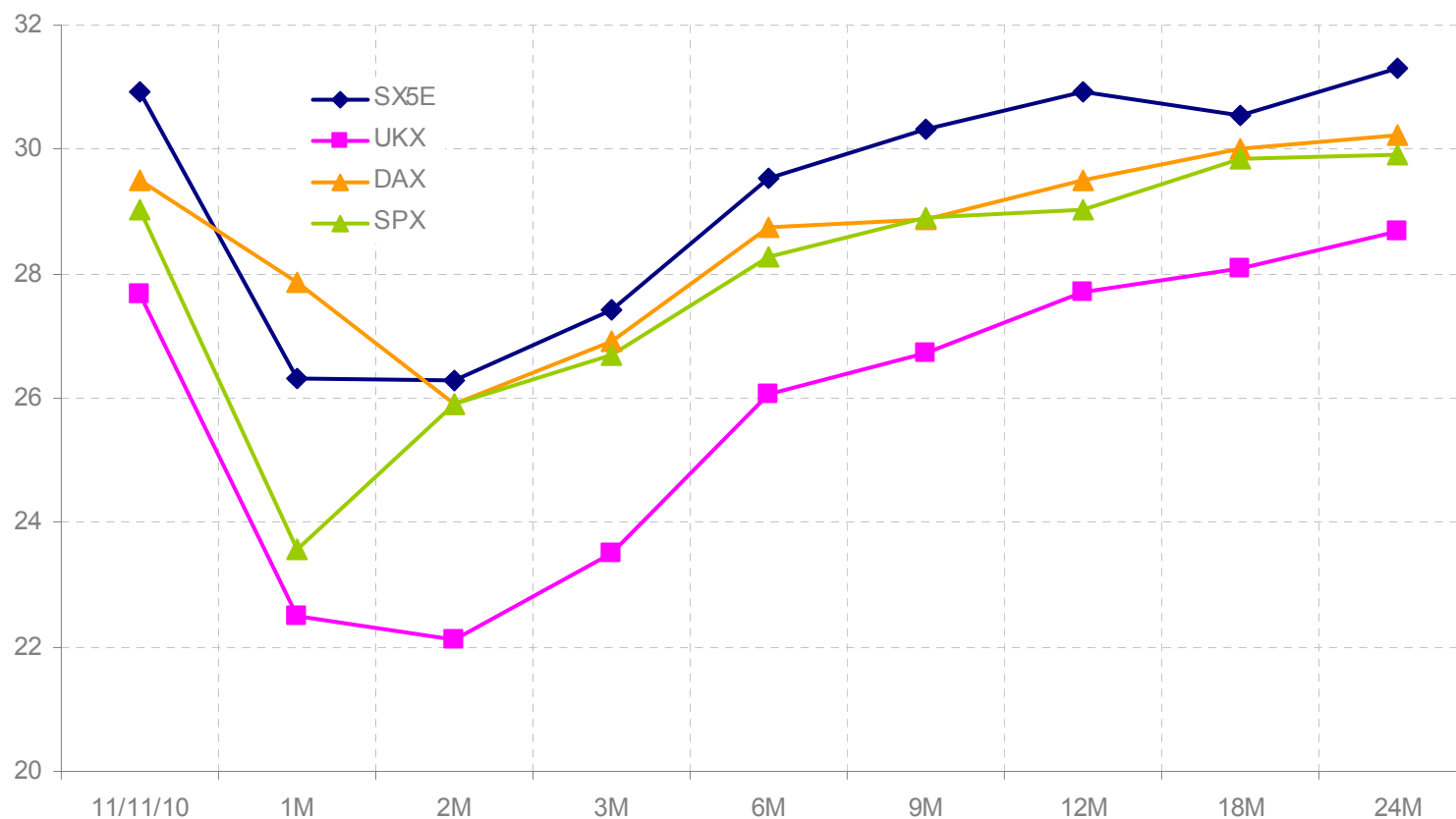


SOURCE: LIQUID CAPITAL MARKETS

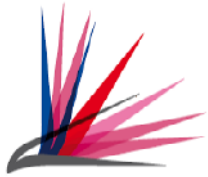


# TERM STRUCTURE

Variance Swaps Theoretical Rates

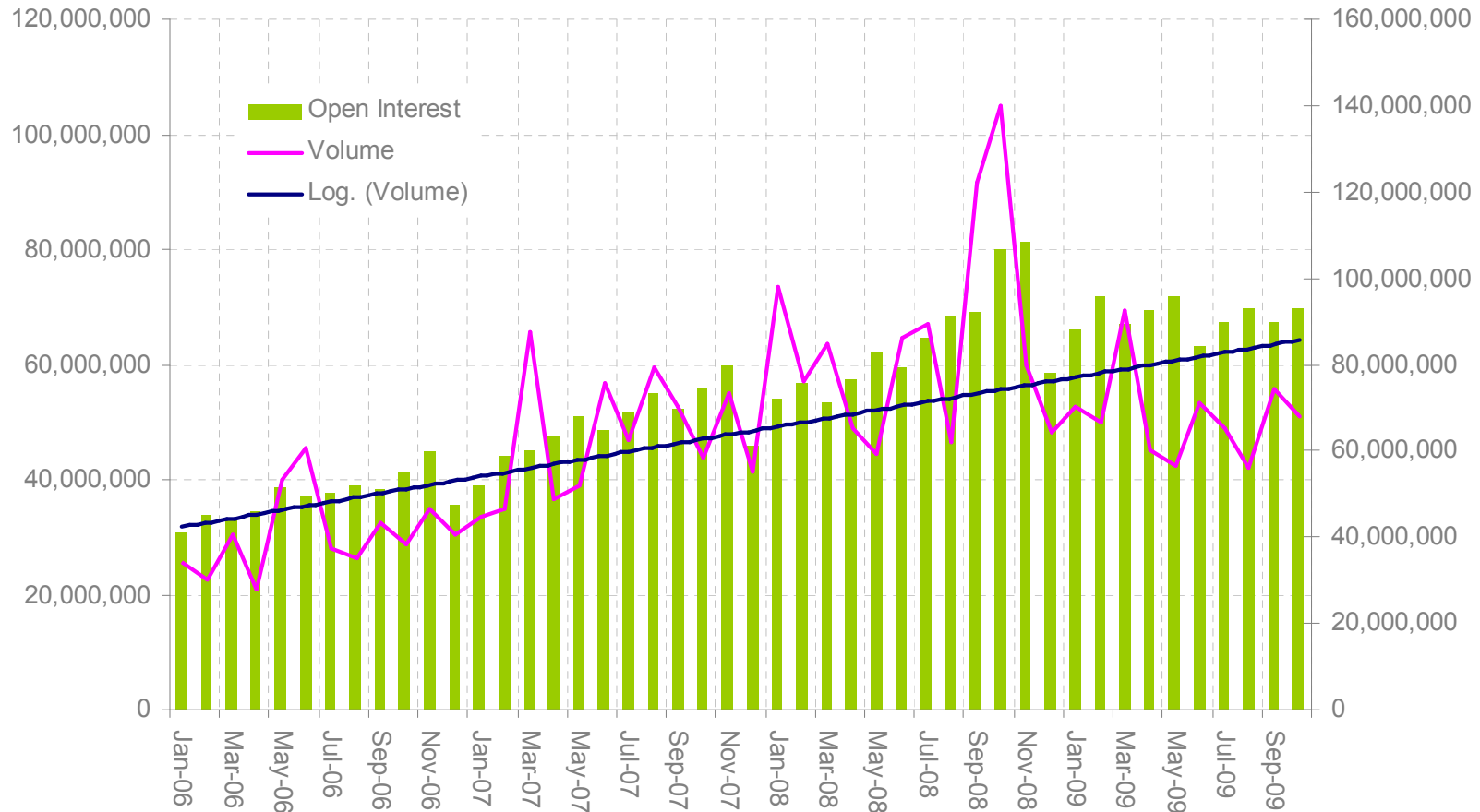


SOURCE: BLOOMBERG

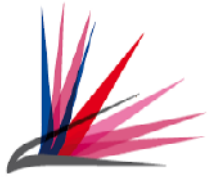


# EUREX – VOLUME AND OI HISTORY

Eurex - Equity Indices Total Open Interest and Volume (RH)

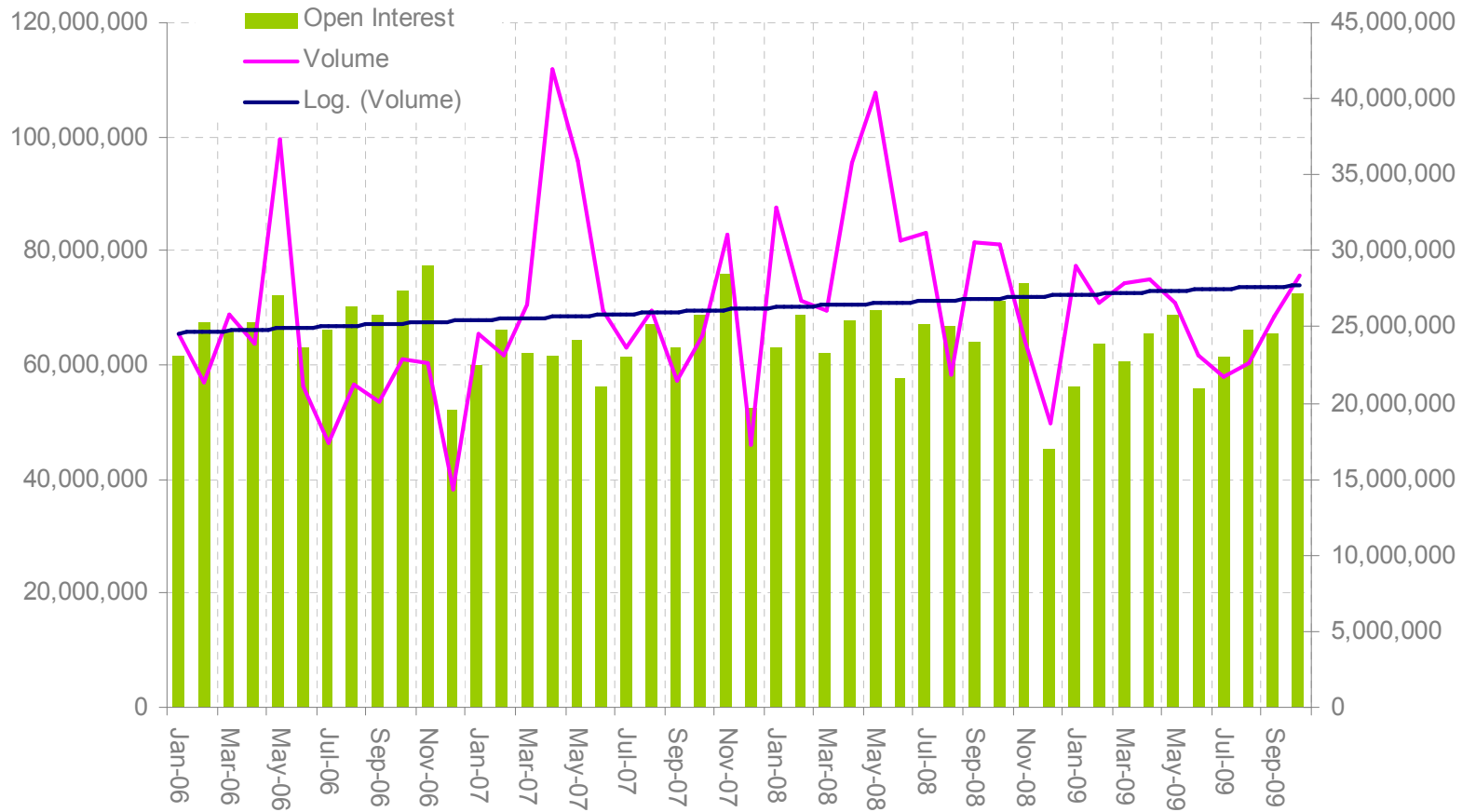


SOURCE: FOW TRADE DATA



# EUREX – VOLUME AND OI HISTORY

Eurex - Equity Options Open Interest and Volume (RH)



SOURCE: FOW TRADE DATA



## CONCLUSIONS

WE EXPECT **MID-TERM VOLATILITY** SKEW TO REMAIN **MODERATELY STEEP** IN EUROSTOXX AND DAX AND TO BECOME **STEEPER** IN FTSE

**GENERAL** FEELING OF **UNCERTAINTY** IS CONFIRMED BY THE VARIANCE TERM STRUCTURE – **BUYERS** OF MID/LONG-TERM VOLATILITY

DERIVATIVES **VOLUMES** HAVE **DECREASED** BUT OPEN INTEREST REMAINS **STABLE**

**ACTIVITY** IS NOW **CONCENTRATING** IN **INDEX** PRODUCTS

IN **BOTH PRODUCT** CATEGORIES, LIQUIDITY IS **PATCHY** AND IT HAS **NEARLY** DRIED UP IN **SINGLE STOCK** OPTIONS



# CONCLUSIONS

LIQUIDITY FLOWS REMAIN THE MAIN CONCERN

FORGET ALPHA, CAPITAL PRESERVATION IS THE NEW BLACK

THE PERFORMANCE OF EQUITY MARKETS IN THE NEXT 3  
6 MONTHS IS PREDICATED ON QE PROGRAMS

INVESTORS WILL LOOK FOR CONFIRMATION IN EXTENSION OF QE  
PROGRAMS OR IN CONSISTENT BUY SIGNALS FROM MEDIUM-TERM  
INDICATORS

WEAK DOLLAR AND STERLING COULD GENERATE INFLATIONARY  
PRESSURE IN THE US AND UK



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