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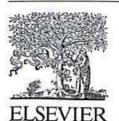
# Journal of FINANCIAL MARKETS

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## Journal of Financial Markets

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## Cross-listings and liquidity commonality around the world ☆



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### ABSTRACT

In this paper, we investigate the effects of international cross-listings on commonality in liquidity. We find that cross-listings have asymmetric effects on cross-listed stocks' liquidity commonality that include reducing the stocks' liquidity commonality with the local market and increasing the stocks' liquidity commonality with the host market. We also find that the negative impact of cross-listings on home liquidity commonality is more pronounced for stocks from countries with high market segmentation, an opaque information environment, and a poor institutional infrastructure. These results suggest that cross-listings reduce the vulnerability of stocks' liquidity to aggregate liquidity shocks in the local market.



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# The determinants of alternative trading venue market share: Global evidence from the introduction of Chi-X



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Keywords:
Alternative trading venues
Chi-X
Market quality
Liquidity quality
Pricing efficiency

### ABSTRACT

In this paper, we examine market share drivers of a prominent alternative trading venue (Chi-X) in an international context. We find that Chi-X's market share is negatively related to trading fees and latency, while positively related to liquidity relative to primary exchanges. Venue market share is negatively related to order-to-trade ratio and positively related to average trade size, suggesting traders' preference to interact with natural and accessible liquidity. Furthermore, trading tends to concentrate on the primary exchange during market stress, while tick constraint stocks tend to trade more on Chi-X to avoid queuing at the touch on the primary exchange.



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## Equity hedging and exchange rates at the London 4 p.m. fix $^{4}$



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Keywords:
Exchange rates
Market microstructure
Fixing prices
Order flow
Hedging

### ABSTRACT

We test the hypothesis that hedging by international equity portfolio managers affects exchange rates—the "hedging channel of exchange rate adjustment". A key institutional feature of the foreign exchange market, the "London 4 p.m. fix", is used to identify times when hedging trades concentrate. The direction of hedging trades is identified by past equity returns. The findings show that equity market appreciation over the month can be used to predict currency depreciation before the end-of-month fix, providing evidence that hedging activity plays a role in exchange rate determination.



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# Intermediated investment management in private markets: Evidence from pension fund investments in real estate\*



Aleksandar Andonov a, Piet Eichholtz b, Nils Kok b,\*

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Pension fund
Real estate
Delegated investment management
Economies of scale
Performance

### ABSTRACT

We evaluate the economics of financial intermediation in alternative assets by investigating the allocation and performance of pension fund investments in real estate, the most significant alternative asset class for institutional investors. We document substantial heterogeneity in real estate investment cost and performance, determined by two main factors: mandate size and investment approach. Larger pension funds are more likely to invest in real estate internally, have lower costs, and higher net returns. Smaller pension funds invest primarily in direct real estate through external managers and fund-of-funds, and disregard listed property companies. Overall, we find that delegating real estate investment management to financial intermediaries increases costs and disproportionally reduces returns.

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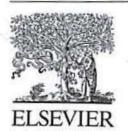
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## Style representation and portfolio choice \*



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Keywords: Style investing Mutual funds Individual investors

### ABSTRACT

We study the impact of style representation on portfolio choice using the choices of the Swedish population in their retirement accounts. We show that investor choice depends on how funds are grouped in the menu ("styles"). An exogenous increase in the style representation increases investment in the funds of the style. By using information on the performance of the funds that the investors choose, we show that the sensitivity to style exposure is negatively related to the investor's degree of informativeness. This suggests that style exposure represents a way of coping with limited (private) information.



### Journal of Financial Markets

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## Options market makers' hedging and informed trading: Theory and evidence



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Keywords:
Options market making
Hedging
Informed trading
Adverse-selection risk
Bid-ask spreads

### ABSTRACT

We develop a model to analyze the effects of hedging activities by options market makers (OMMs) facing informed trading. The model suggests that OMMs' hedging activities motivated by adverse-selection risk lead to wider spreads in both stock and options markets. The hedging effect on spreads is more pronounced in the options market than in the stock market. The effect is larger when the OMMs hedge with the underlying asset than with other options. In addition, hedging activities by the OMMs significantly alter the trading strategies of informed traders. Our empirical tests provide evidence consistent with the key implication of our model.

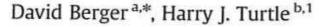


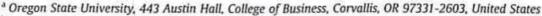
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## Sentiment bubbles \*





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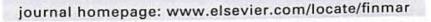
Keywords: Investor sentiment Bubbles Price-correction

### ABSTRACT

We examine cumulative changes in investor sentiment and find that these changes relate to extended periods of increasing overvaluation, followed by price corrections. The relation between sentiment and returns is path dependent—short-term increases in sentiment precede strong positive returns, while prolonged periods of increasing sentiment precede negative returns. Positive short-run returns are consistent with bubble dynamics and mitigate the backwards induction conundrum described by Abreu and Brunnermeier (2003). Our results hold for the market portfolio, and are especially strong for opaque portfolios with high levels of uncertainty, as well as portfolios with greater market frictions that limit arbitrage.



## Journal of Financial Markets





## On the determinants of pairs trading profitability \*

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Pairs trading
Relative-value arbitrage
Return predictability
International stock markets
Limited attention
Limits to arbitrage

### ABSTRACT

We perform a large-scale empirical analysis of pairs trading, a popular relative-value arbitrage approach. We start with a cross-country study of 34 international stock markets and uncover that abnormal returns are a persistent phenomenon. We then construct a comprehensive U.S. data set to explore the sources behind the puzzling profitability in more depth. Our findings indicate that the type of news leading to pair divergence, the dynamics of investor attention as well as the dynamics of limits to arbitrage are important drivers of the strategy's time-varying performance.



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## Frontier market transaction costs and diversification



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### ARTICLEINFO

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Keywords: Frontier market Liquidity Transaction cost Diversification

### ABSTRACT

Frontier markets, sometimes referred to as "emerging emerging markets," have high transaction costs so investors who rebalance their portfolios monthly do not receive diversification benefits. Rebalancing every three months or longer, however, leads to diversification gains. Diversification benefits are larger in time periods with lower transaction costs and this is linked to risk aversion. Higher risk aversion results in larger transaction costs and larger return correlations between the United States and frontier markets. There is no cross-country relation between diversification benefits and transaction costs or development. Our results are based on comprehensive measures of transaction costs for 19 frontier markets.



## Journal of Financial Markets

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## Relative liquidity and future volatility\*



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Keywords:
Order-driven markets
Limit order book distribution
Volatility predictability
Liquidity

### ABSTRACT

The main contribution of this paper is to identify the strong predictive power of the relative, rather than the absolute, volume of orders over volatility. To this end, we propose a new measure, relative liquidity, which accounts for how quoted depth is distributed in a limit order book and captures the level of consensus on a security's trading price. Higher liquidity provision farther away from the best quotes, relative to the rest of the book, is associated with a disagreement on the current price and followed by high volatility. The relationship is robust to the inclusion of several alternative measures.

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## Asymmetric effects of sell-side analyst optimism and broker market share by clientele\*



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### ABSTRACT

This paper provides evidence for the first time on how different broker clienteles react to earnings forecast and stock recommendations. Greater trade volume is found to be associated with optimistic earnings forecasts while stock recommendations are stronger for analysts affiliated with retail brokerage firms than those affiliated with institutional brokerage firms. We also find that the market share of buy volume (that is, volume from buy orders) substantially rises on recommendation upgrades while the market share of sell volume rises on recommendation downgrades, and that this effect is stronger for retail clientele.



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## Trading price jump clusters in foreign exchange markets ☆



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Keywords:
Price jumps
Clusters
Foreign exchange markets
Trading
Profitable strategy

### ABSTRACT

We investigate trading opportunities of price jump clusters in the FX markets. We identify clusters for eight FX rates against the U.S. dollar from March 1, 2013 to June 6, 2013 sampled at a 5-minute frequency. We propose a high-frequency jump cluster-based trading strategy and show that jumps\_carry a tradable signal for all currencies; however, when incorporating the bid-ask spread, the only profitable currencies are the euro, yen and rand. From the portfolio perspective, a combination of the euro and yen represents a strategy robust to the holding period, minimizes the transaction costs, and diversifies out the U.S.-related risk.



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## A dynamic model of hedging and speculation in the commodity futures markets



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G15

Q47

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### ABSTRACT

Over the 1990-2010 time period, a dynamic interaction between spot and futures returns in five commodity markets (copper, cotton, oil, silver, and soybeans) is empirically validated. An error correction relationship for the cash returns and a non-linear parameterization of the corresponding futures returns are combined with a bivariate CCC-GARCH representation of the conditional variances. Hedgers and speculators are contemporaneously at work in the futures markets, the role of the latter being far from negligible. In order to capture the consequences of the growing turbulence of these markets, a two-state regime-switching model for futures returns is developed. In this way financial traders' timevarying risk appetites are allowed to interact with hedgers' demand in determining both future and spot prices.

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## Information and accuracy in pricing: Evidence from the NCAA men's basketball betting market crossMark



Jason P. Berkowitz a,\*, Craig A. Depken IIb,1, John M. Gandar c,2

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L83

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### ABSTRACT

In this paper, we test whether accuracy in the wagering markets for NCAA Division I men's basketball improves when there are more betting lines available for a given game. The empirical evidence indicates that when the money line is offered, it has no impact on the accuracy of the sides line as it is a redundant security, but the offering of the totals line impacts the accuracy of the sides line. We interpret this as evidence that the totals line provides additional information to uninformed bettors that improves the accuracy of the sides line in its role as a price.

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## Equity volatility as a determinant of future term-structure volatility



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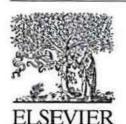
Keywords: Equity risk

G14

Term structure Bond volatility

### ABSTRACT

We show that equity volatility serves as a determinant of future Treasury term-structure volatility over the recent October 1997 to June 2013 period. We find that equity volatility contains incrementally reliable information for the subsequent volatility of: (1) 10-year and 30-year bond futures returns, (2) the term-structure's level, and (3) the term-structure's slope. We present additional evidence that suggests a flight-to-quality/flight-from-quality pricing avenue is a likely contributor to the volatility linkages, where time-varying economic uncertainty can generate both a large positive serial correlation in stock volatility and a time-variation in the precautionary savings motive and diversification benefits of holding bonds.



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## Evaluating trade classification algorithms: Bulk volume classification versus the tick rule and the Lee-Ready algorithm



Bidisha Chakrabarty a.\*, Roberto Pascual b, Andriy Shkilko c

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Keywords: Trade classification Bulk volume classification Tick rule Lee and Ready VPIN

### ABSTRACT

We compare the accuracy of the bulk volume classification (BVC) to that of the tick rule (TR) and the Lee-Ready (LR) algorithm for a large sample of equities. TR and LR produce significantly better classifications than the BVC. This result applies to stocks of all sizes, including the most frequently traded. Iteratively optimizing the BVC improves its performance, but the conventional rules still outperform. TR and LR produce more accurate estimates of the volume-synchronized probability of informed trading. Order imbalances computed using TR and LR are comparable to those computed using the BVC in explaining returns, liquidity, and trading costs.

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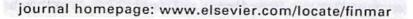
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# Learning to smile: Can rational learning explain predictable dynamics in the implied volatility surface?



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### ABSTRACT

We develop a general equilibrium asset pricing model under incomplete information and rational learning in order to understand the unexplained predictability of option prices. In our model, the fundamental dividend growth rate is unknown and subject to breaks. Immediately after a break, there is insufficient information to price option contracts accurately. However, as new information arrives, a representative Bayesian agent recursively learns about the parameters of the process followed by fundamentals. We show that learning makes beliefs time-varying and generates predictability patterns across option contracts with different strike prices and maturities; as a result, the implied movements in the implied volatility surface resemble those observed empirically.

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## Journal of Financial Markets

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## Volatility-of-volatility and tail risk hedging returns



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### ABSTRACT

This paper reports that the volatility-of-volatility implied by VIX options has predictability for tail risk hedging returns. Specifically, an increase in the volatility-of-volatility as measured by the VVIX index raises current prices of tail risk hedging options, such as S&P 500 puts and VIX calls, and lowers their subsequent returns over the next three to four weeks. The results are robust to jump risk, skewness, kurtosis, option liquidity, variance risk premium, and limit of arbitrage. The predictability can be explained by either risk premiums for a time-varying crash risk factor or uncertainty premiums for a time-varying uncertain belief in volatility.

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# Testing and modeling jump contagion across international stock markets: A nonparametric intraday approach <sup>☆</sup>



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#### ABSTRACT

We investigate the contagion hypothesis between the United States and three European markets (Germany, the United Kingdom, and France). We focus on realized volatility, which we break down into continuous and jump parts, and we test the contagion hypothesis between jumps during overlapping and non-overlapping hours. We find a significant relation between jumps and realized volatility and spillover effects between jumps. The U. S. market plays the leading role during overlapping hours, but regional contagion is more obvious during non-overlapping hours. Interestingly, jump contagion effects exhibit asymmetry and non-linearity, and vary according to regimes. Accordingly, we improve jump modeling and spillover.



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## Short sales and the weekend effect—Evidence from a natural experiment ☆



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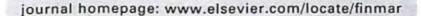
### ABSTRACT

Price pressure induced by the short-seller's systematic unwinding and rewinding short positions around the weekend allegedly contributes to the weekend effect. On the Hong Kong Stock Exchange, short-selling was prohibited before 1994 and was allowed only for some stocks after 1994. Exploiting this natural experiment, we find a strong weekend effect during the pre-1994 period and during the post-1994 period for both stocks that are allowed to be sold short and those that are not. Moreover, the difference in the weekend effects between the two groups is economically and statistically indistinguishable. These results are inconsistent with the above-mentioned hypothesis.

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## Informed trading in parallel bond markets\*



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### ABSTRACT

European government bond market segmentation has not been extensively investigated. I contribute to this scant literature by studying the market microstructure of the Italian government bond market, the largest one in the eurozone. Using a sequential trade model, I analyze the probability of informed trading (PIN) in the parallel trading of the same bond on two secondary electronic platforms: the inter-dealer MTS and the dealer-to-customer BondVision; an aspect that has never been investigated before. I find that the PIN is significantly lower in the dealer-to-customer segment than in the inter-dealer one.