Night Trading: Higher Returns with Lower Risk

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Research Questions

Key Study

Marie-Eve Lachance, *Night Trading: Lower Risk but Higher Returns?*, Review of Financial Economics, 2023

Long-Term Persistence

Is there long-term persistence in overnight returns?

Profitability

Can overnight return patterns be exploited profitably after considering risk and costs?

Key Findings

Persistence of Overnight Returns

Overnight returns exhibit strong persistence over time, indicating a consistent pattern that can be observed and potentially exploited.

Consistent Outperformers

Some stocks consistently outperform overnight, suggesting that certain equities may be particularly well-suited for overnight trading strategies.

Profitability After Costs

Overnight investment strategies can be profitable even after costs, demonstrating their potential viability as a trading approach.

Risk-Return Profile

Lower risk but higher returns possible for selected stocks, challenging traditional risk-return trade-offs in financial markets.

Example: Honeywell

Honeywell (HON) serves as an illustrative case study for the phenomenon of persistent overnight returns. This multinational conglomerate, known for its diverse portfolio in aerospace, building technologies, and performance materials, demonstrates the potential for higher returns with lower risk through night trading.

Analysis of Honeywell's stock performance reveals a consistent pattern of positive overnight returns over an extended period. This persistence suggests that the company's stock price tends to increase during non-trading hours, offering opportunities for investors who hold positions overnight.

The Honeywell example underscores the importance of examining individual stocks for their overnight return characteristics, as not all equities exhibit this pattern to the same degree. It highlights the potential for identifying specific stocks that may be particularly well-suited for overnight trading strategies.
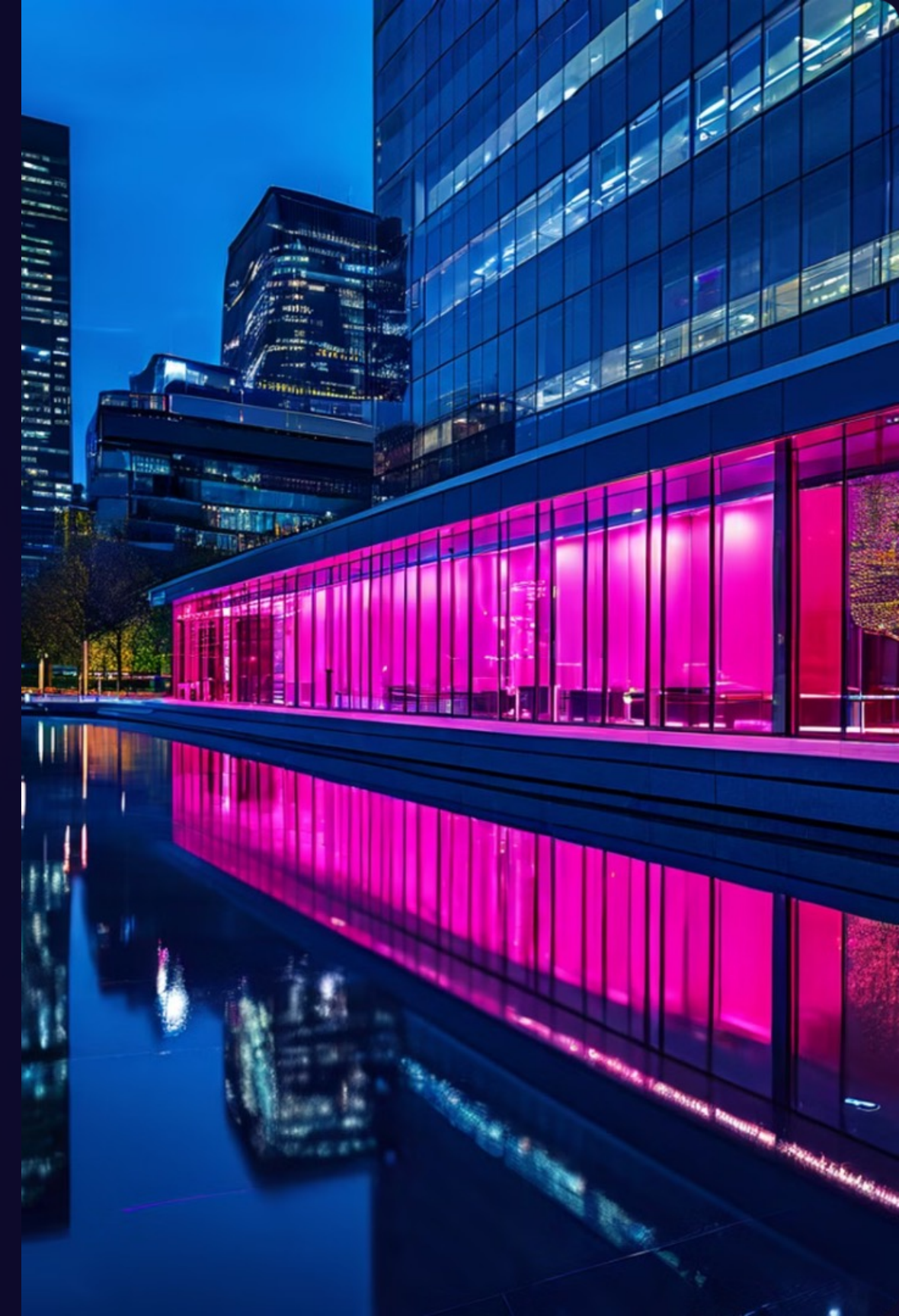
Honeywell – Overnight vs. Intraday
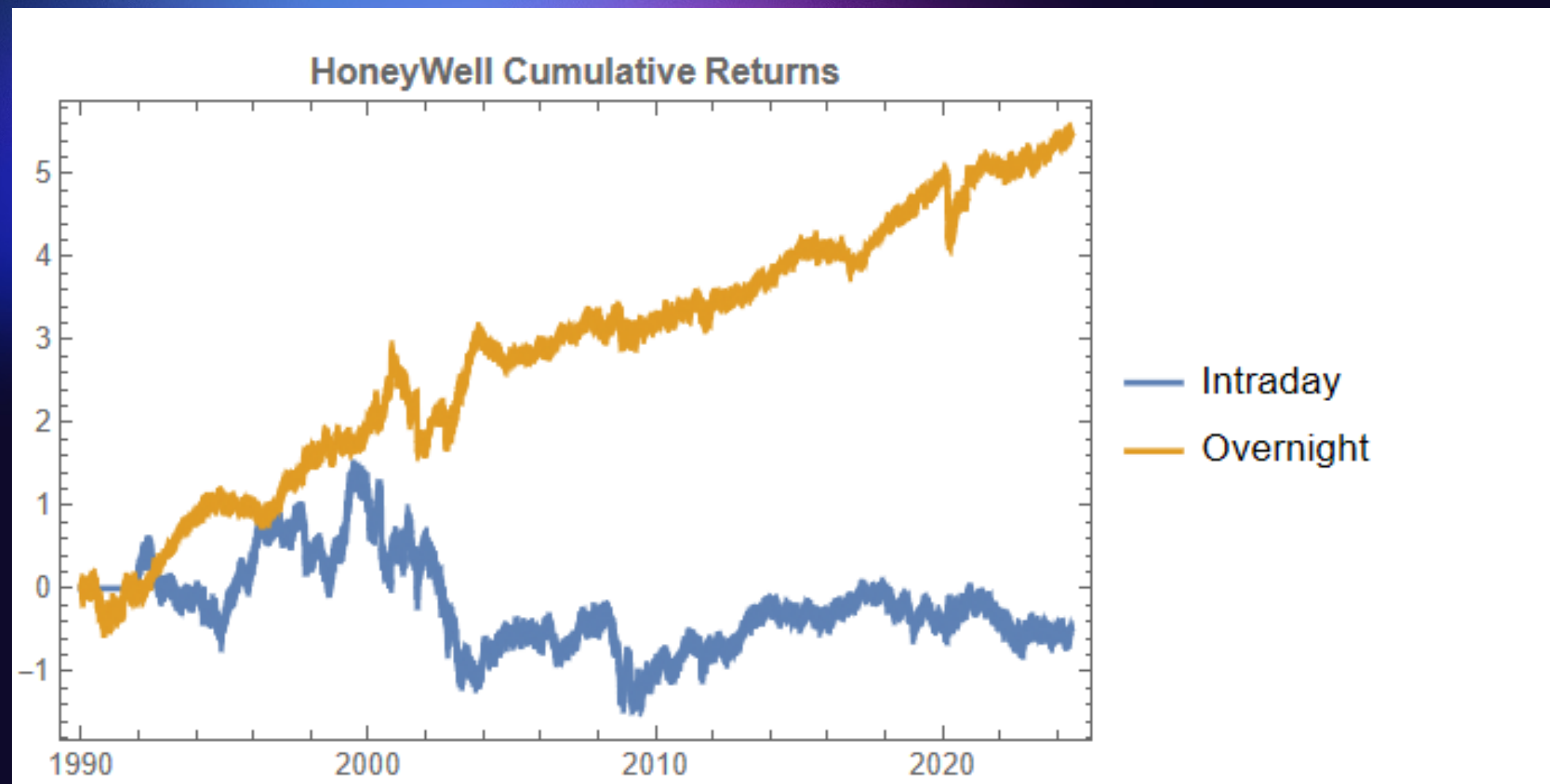
Study Methodology

Data Analysis

Analyzed CRSP data for 1995-2021

Decomposed daily returns into overnight and intraday components

Statistical Testing

Used Fama-MacBeth regressions to test persistence

Model Development

Developed Overnight Bias Parameter (OBP) model

Portfolio Formation

Formed portfolios based on past OBP

Persistence of Overnight Returns

The research has uncovered compelling evidence of a strong positive relationship between current and past overnight returns in the stock market. This finding suggests that stocks that have performed well during overnight periods in the past are likely to continue this trend in the future.

Interestingly, we also observed a negative relationship with past intraday returns. This indicates that stocks that perform well during trading hours may not necessarily exhibit the same strength in overnight performance, and vice versa.

Perhaps most notably, our analysis reveals that this persistence in overnight returns is not a short-term phenomenon. In fact, we found that this pattern extends up to 60 months, or five years. This long-term persistence underscores the potential significance of overnight returns as a factor in investment strategies.

Overnight Bias Model

- Incorporates systematic biases in overnight/intraday return processes

- OBP = intercept in regression of overnight on full-day returns

- Model explains empirical patterns well ($R^2 > 0.98$)

OBP in the Equities Entity Store

The Overnight Bias Parameter (OBP) has been integrated into our Equities Entity Store, providing a powerful tool for analyzing and predicting overnight return patterns. This implementation allows for efficient tracking and analysis of OBP across a wide range of stocks over extended periods.

By incorporating OBP into the Equities Entity Store, we've created a robust framework for identifying stocks with consistent overnight return patterns. This integration enables investors and analysts to quickly assess the potential for overnight trading strategies on a stock-by-stock basis.

The Equities Entity Store now includes historical O data, current OBP values, and predictive models b on OBP trends. This comprehensive approach pro a nuanced understanding of each stock's behavio overnight markets, facilitating more informed deci making for night trading strategies.

HON EQUITIES ["Performance"] ["Technical"] // Dataset

	Alpha(%)	Beta	Up–Beta	Down–Beta	Convexity	OBP(%)	μ(%)	σ(%)	IIR	Downside Volatility(%)
Inception	0.02	1.05	1.04	1.08	0.00124	6.76	9.0	22.63	0.4	20.66
60–Months	−0.02	0.96	0.98	0.98	0.0	5.94	−3.41	17.85	−0.19	19.82
36–Months	−0.02	0.8	0.85	0.77	0.00608	6.25	−5.14	15.36	−0.33	13.84
12–Months	−0.03	0.68	0.5	0.74	0.05954	10.1	−14.23	14.72	−0.97	11.02
9–Months	0.0	0.67	0.6	0.81	0.04345	14.05	−7.87	14.01	−0.56	8.94
6–Months	−0.03	0.51	0.25	0.85	0.35939	6.6	−20.97	15.21	−1.38	8.97
3–Months	0.05	0.44	0.44	0.64	0.03951	19.56	10.13	14.88	0.68	7.29
1–Month	0.27	0.27	0.31	−2.66	8.86743	13.97	34.19	14.23	2.4	3.57

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Performance of OBP Strategy

Overnight Bias Group (OBG)

The OBG consists of stocks with positive, significant past OBP. These stocks form the foundation of our strategy, demonstrating consistent overnight return patterns.

Impressive Returns

The OBG portfolio, analyzed from 1995 to 2021, achieved a remarkable 24.68% annual return. This performance significantly outpaces many traditional investment strategies.

Strong Risk-Adjusted Performance

Even when accounting for risk, the OBG portfolio maintained an impressive 18.58% risk-adjusted return. This indicates that the strategy's high returns are not simply a result of taking on excessive risk.

Low Market Correlation

With a market beta of only 0.35, the OBG portfolio demonstrates low correlation with overall market movements. This characteristic suggests potential diversification benefits for investors.

Strategy Evaluation in the Equities Entity Store

The integration of our Overnight Bias Parameter (OBP) strategy into the Equities Entity Store has enabled comprehensive evaluation and real-time monitoring of its performance. This powerful combination allows for in-depth analysis of the strategy's effectiveness across various market conditions and time periods.

Within the Equities Entity Store, we've implemented sophisticated tools to track the performance of stocks selected based on their OBP. These tools provide detailed metrics on returns, risk-adjusted performance, and correlation with broader market movements. This granular level of analysis helps in fine-tuning the strategy and identifying potential areas for improvement.

The Equities Entity Store also facilitates backtesting of the OBP strategy against historical data, allowing us to validate its performance over extended periods. This historical perspective is crucial for understanding the strategy's robustness and consistency across different market cycles.
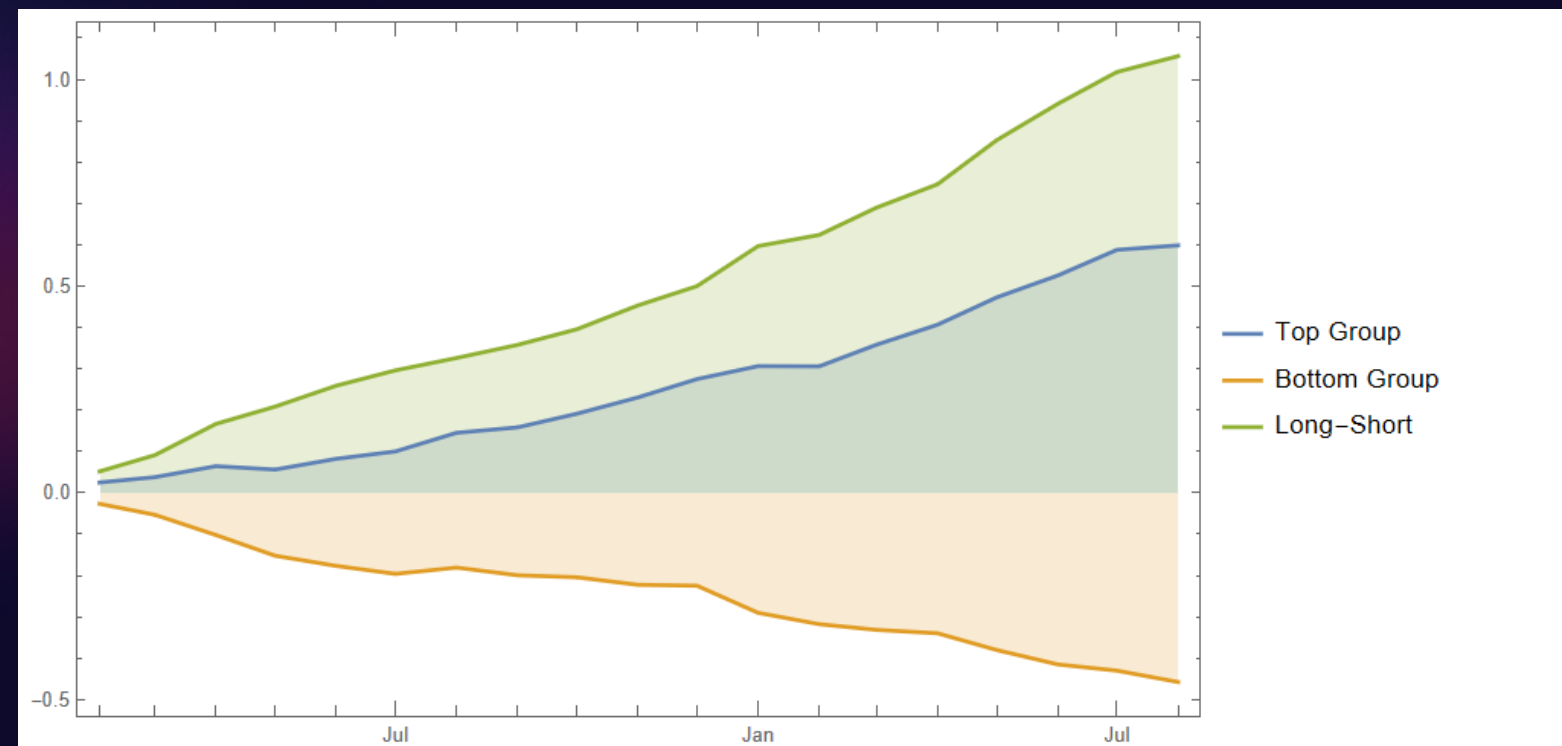
Implementation

Leveraging Call Auctions

Use opening and closing call auctions to avoid bid-ask spreads. This approach helps minimize transaction costs and ensures more efficient price discovery for the OBG strategy.

Optimal Trading Windows

OBG outperformance starts after close, peaks pre-open. This timing suggests that the strategy's effectiveness is most pronounced during the overnight period, particularly in the hours leading up to market open.

Managing Liquidity Risks

Liquidity considerations for less actively traded stocks. When implementing the OBG strategy, it's crucial to account for potential liquidity constraints, especially for stocks with lower trading volumes.

Conclusions

Persistent Overnight Biases

Overnight biases are persistent and can be modeled, providing a reliable foundation for trading strategies.

Profitable Strategies

Profitable strategies are possible even after costs, demonstrating the viability of overnight trading approaches.

Limited Stock Selection

But these strategies are limited to stocks with significant positive past biases, requiring careful selection.

Optimal Trade Timing

There are implications for optimal trade timing and alpha generation, offering potential advantages to informed traders.

More Information

https://store.equityanalytics.store/equities-entity-store