



Short- and Long-Run Stock Performance Following U.S. Primary Listings: Evidence from European Firms

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Abstract

Title: Short- and Long-Run Stock Performance Following U.S. Primary Listings: Evidence from European Firms

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This thesis examines whether European firms that relocate their primary stock market listing to a U.S. exchange experience valuation effect in the short and long run. The analysis focuses on European companies that established a new primary U.S. listing between 2015 and 2024, a period marked by increasing global capital market integration and the growing use of alternative listing mechanisms.

The empirical setting distinguishes four relisting pathways: primary listing migrations, U.S. initial public offerings by firms previously listed in Europe, mergers with U.S.-listed special purpose acquisition companies (SPACs), and direct listings. Despite institutional differences, all pathways involve a shift of the firm's main trading venue to the United States.

Short-term market reactions are analyzed using peer-adjusted cumulative abnormal returns over a 30-day post-listing window. Long-run performance is assessed through peer-adjusted buy-and-hold abnormal returns over 12-, 24-, and 36-month horizons, complemented by factor regressions and calendar-time portfolio analyses.

The results show small but statistically significant negative abnormal returns shortly after listing and economically meaningful underperformance relative to matched European peers over longer horizons. Factor-adjusted analyses do not provide robust evidence of sustained positive abnormal alphas. Overall, the findings indicate that U.S. primary listings by European firms are not associated with persistent shareholder value creation.

Keywords: Abnormal Returns (ARs), Event Study Methodology, Buy-and-Hold Abnormal Returns (BHARs), Long-Run Stock Performance, Factor Models (CAPM, FF3, FF5), Calendar-Time Portfolio Regressions, Risk-Adjusted Returns

Resumo

Título: Desempenho acionista de curto e longo prazo após listagens primárias nos Estados Unidos: Evidência de empresas europeias

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Esta tese analisa se empresas europeias que transferem a sua listagem primária para uma bolsa dos Estados Unidos registam efeitos de valorização no curto e no longo prazo. A amostra inclui empresas europeias que realizaram uma nova listagem primária nos EUA entre 2015 e 2024, num contexto de crescente integração dos mercados de capitais e maior utilização de mecanismos alternativos de listagem.

O enquadramento empírico distingue quatro vias de relistagem: migrações de listagem primária, ofertas públicas iniciais nos EUA por empresas anteriormente cotadas na Europa, fusões com SPACs cotadas nos EUA e listagens diretas. Todas estas vias implicam a transferência do principal local de negociação para os Estados Unidos.

Os efeitos de curto prazo são analisados através de retornos anormais acumulados ajustados por pares numa janela de 30 dias após a listagem. O desempenho de longo prazo é avaliado com base em retornos anormais buy-and-hold ajustados por pares ao longo de horizontes de 12, 24 e 36 meses, complementados por análises fatoriais.

Os resultados indicam retornos anormais negativos pequenos, mas estatisticamente significativos no curto prazo e uma subperformance economicamente relevante no longo prazo face a empresas europeias comparáveis. No conjunto, os resultados sugerem que as listagens primárias nos EUA por empresas europeias não estão associadas à criação persistente de valor para os acionistas.

Palavras-chave: Retornos Anormais (ARs), Metodologia de Estudo de Eventos, Retornos Anormais Buy-and-Hold (BHARs), Desempenho Acionista de Longo Prazo, Modelos Fatoriais (CAPM, FF3, FF5), Regressões de Carteiras em Tempo de Calendário, Retornos Ajustados ao Risco

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List of Acronyms

AbCAR

Abnormal Cumulative Abnormal Return

BHAR

Buy and Hold Abnormal Return

CAPM

Capital Asset Pricing Model

CAR

Cumulative Abnormal Return

CRSP

Center for Research in Security Prices

EW

Equal Weighted

VW

Value Weighted

FF3

Fama French Three Factor Model

FF5

Fama French Five Factor Model

IPO

Initial Public Offering

MOVED

Primary Listing Migration

OLS

Ordinary Least Squares

RF

Risk Free Rate

SPAC

Special Purpose Acquisition Company

WRDS

Wharton Research Data Services

ADR

American Depositary Receipt

Introduction

Over the past two decades, global equity markets have become increasingly integrated, yet listing activity has evolved asymmetrically throughout regions. In particular, U.S. capital markets have consolidated their position as the dominant global listing venue, attracting a growing share of domestic and foreign issuers, while European equity markets have experienced comparatively weaker listing dynamics. This difference has been especially pronounced among larger and growth-focused firms, many of which have chosen to relocate their primary stock market listing to the United States. These developments reveal structural differences between U.S. and European markets in terms of liquidity, investor base, regulatory integration, and market visibility, and have significantly changed firms' listing choices. At the same time, while such changes are often motivated by expectations of improved valuation and wider investor access, it remains an open empirical question whether relocating a firm's primary listing to the United States leads to sustained shareholder value creation.

A large academic literature studies the motivations and consequences of foreign listings, particularly firms entering U.S. capital markets. Prior analysis points out possible advantages associated with U.S. listings, comprising reduced market segmentation, improved liquidity, enhanced disclosure standards, and stronger investor protection. However, empirical evidence on valuation effects is far from conclusive. While some studies document positive stock price reactions around listing occurrences, others report weak announcement effects and negative long-run performance following foreign listings. This mixed evidence implies that the valuation implications of U.S. listings are context-dependent and may vary across institutional settings, firm characteristics, market conditions, and the specific methods by which firms access U.S. capital markets.

Importantly, much of the existing evidence is based on earlier sample periods and focuses on traditional cross-listing structures, such as American Depositary Receipts, or examines individual listing mechanisms in isolation. In contrast, the structure of U.S. market entry has evolved substantially in recent years. European firms increasingly access U.S. exchanges through a diverse set of pathways, including full primary listing migrations, U.S. initial public offerings by already listed firms, mergers with special purpose acquisition companies, and direct listings without capital issuance. Despite their growing relevance, these relisting mechanisms have rarely been analyzed within a consolidated empirical framework, and it

remains unclear whether the valuation patterns documented in earlier studies extend to this more recent and heterogeneous set of listing transitions.

This thesis tackles this issue by examining the short-term and long-term stock price performance of European firms that obtain a new primary listing on a U.S. exchange between 2015 and 2024. By treating these events as economically comparable transitions of a firm's main trading venue to the United States, the study concentrates on the valuation consequences of the listing decision itself, while considering heterogeneity across relisting pathways. Short-term market reactions are analyzed using event-study methodology with peer-adjusted cumulative abnormal returns, while long-run performance is evaluated using peer-adjusted buy-and-hold abnormal returns over multiple horizons. These event-time measures are complemented by firm-level factor regressions and calendar-time portfolio analyses based on standard asset pricing models.

The empirical findings show economically small but statistically significant negative abnormal returns in the immediate post-listing period. In contrast, long-run performance measured using buy-and-hold abnormal returns exhibits economically meaningful underperformance relative to matched European peers, which becomes more pronounced over longer horizons. Factor-adjusted analyses and calendar-time regressions do not provide robust evidence of systematic positive abnormal alphas, indicating that the observed long-run underperformance is not driven by exposure to standard risk factors. Moreover, buy-and-hold abnormal returns and factor-model alphas are strongly positively correlated, indicating that both measures capture related dimensions of post-listing performance.

By jointly analyzing multiple relisting pathways within a consistent empirical framework and focusing on the post-2015 period, this thesis contributes to the cross-listing literature in three ways. First, it provides new evidence on the valuation effects of U.S. primary listings by European firms in a contemporary market environment. Second, it evaluates long-run performance using both event-time and calendar-time methodologies in a consolidated peer-adjusted setting. Third, it sheds light on the extent to which firm fundamentals and risk-adjusted performance measures explain variation in post-listing outcomes. Overall, the evidence shows that U.S. primary listings by European firms are not associated with sustained shareholder value creation, and that valuation effects tend to unfold gradually over time rather than through discrete announcement-period reactions.

2. Literature Review

The academic literature provides multiple explanations for why firms obtain listings on foreign exchanges, why the United States attracts an increasing share of international issuers, and how such events affect valuation, governance, and long-run stock performance. This chapter synthesises the relevant empirical and theoretical literature and links it to the empirical setting of this thesis, which studies European firms that achieve a new primary U.S. listing via four separate methods: primary listing migrations (MOVED), U.S. IPOs of previously European-listed firms (IPO), U.S. SPAC listings (SPAC), and direct listings without capital issuance (DIRECT). While these procedures differ procedurally, they share the economic characteristic of relocating a firm's main trading venue to the United States. The literature reviewed below therefore provides an integrated framework for making sense of these relocations.

2.1 Structural Developments in U.S.–European Listings

(Gati, 2025) documents the widening gap between U.S. and European equity markets. Following parallel long-run declines in listings during the 2000s, the U.S. has experienced a material rise in new listings since 2019, whereas Europe remains stagnant. U.S. markets also host substantially larger firms: by 2022 the average U.S.-listed company was valued at roughly 3.3 times the average European firm. Moreover, the United States has become a global listing hub, with foreign firms accounting for around one quarter of U.S. listed companies. By contrast, Europe struggles to attract new positions, particularly in growth sectors.

The European Central bank report also shows that Europe does not face a delisting problem. Delisting's stem predominantly from M&A activity rather than regulatory burdens. Instead, the key challenge lies in attracting new listings, constrained by fragmented trading venues, limited institutional investor depth, and structural factors such as debt-favoring taxation. In contrast, U.S. markets offer deep liquidity, unified regulation, and strong institutional investor participation.

For European firms seeking global capital, this structural divergence creates incentives across all listing pathways, whether through migration, or direct listing, to relocate their primary listing to the United States.

2.2 Theories and Mechanisms of Foreign Listings

This subsection discusses the market segmentation and investor recognition mechanisms that underpin the valuation effects of foreign listings and are central to the theoretical framework of this thesis.

2.2.1 Market Segmentation and Investor Recognition

(Foerster, 1999) provides foundational evidence that U.S. cross-listings reduce international market segmentation and increase investor recognition. They document that foreign stocks earn significant abnormal returns prior to and during listing: +19% in the year before listing, +1.20% during listing week, followed by –14% in the year after. Their tests support the market segmentation hypothesis, showing that U.S. listings broaden the investor base and reduce the cost of capital.

These mechanisms imply that valuation effects associated with reduced market segmentation and increased investor recognition should arise whenever a firm relocates its primary trading venue to the United States. Accordingly, the predictions of the market segmentation hypothesis extend to all relisting pathways examined in this thesis, despite procedural differences in how U.S. market access is obtained.

2.2.2 Governance Bonding and Investor Protection

(Craig Doidge, 2004) show that foreign firms cross-listed in the U.S. exhibit significantly higher Tobin's q ratios of 16.5% above non-U.S.-listed peers, and up to 37% for firms listed on major U.S. exchanges. They attribute this valuation differential to reduced expropriation by controlling shareholders and improved investor protection, which allows firms to capitalize more effectively regarding growth prospects.

The authors develop a model in which U.S. listings increase the cost of expropriation for controlling shareholders, thereby enhancing firm value when growth opportunities are present (Craig Doidge, 2004). This mechanism provides a theoretical basis for why transitioning to a U.S. exchange, regardless of pathway, may increase valuation through governance bonding.

2.2.3 Disclosure, Liquidity, and Market Quality

(Dijk, 2009) shows that announcement returns vary strongly by listing destination: U.S. listings generate the largest CARs, followed by London, whereas continental European and Japanese listings generate weaker or insignificant effects. They attribute these differences to disclosure standards and investor protection.

(Dang, Moshirian, & Zhanga, 2015) document that cross-listing shifts liquidity dynamics: firms become more exposed to U.S. market liquidity, and home-market liquidity commonality declines. (Ghaffar, Azmat, & Hassan, 2022) show that despite liquidity migration, domestic turnover tends to increase in the years following a U.S. listing.

(Botchwey & Aubert, 2025) show that ADRs exhibit stronger reactions to earnings surprises and earnings management detection than European primary listings, showing a richer information environment and greater institutional analyst attention in the U.S.

These findings are relevant to all relisting types because each pathway involves entry into the U.S. information, disclosure, and liquidity ecosystem.

2.3 Valuation Patterns and Long-Run Performance

2.3.1 Pre-Listing Run-Ups and Long-Run Underperformance

A consistent empirical finding across the literature is the combination of positive pre-listing valuation run ups and negative long run stock performance. (Foerster, 1999) document pre-listing abnormal returns of +19% and post-listing returns of -14%.

(Bancel, Mittoo, & Kalimipalli, 2009) find strong positive run-ups and significant three-year underperformance for European ADR issuers.

(You, Lucey, & Shu, 2013) show diminishing abnormal returns across successive foreign listings.

(Ghadhab & Hellara, 2016) find value creation for first-time foreign listings but negative effects for third or later listings. (Li, Mittoo, Song, & Zhen, 2019) find that ADRs listed during “hot market” periods experience significantly lower three-year BHARs.

(Bessler, Kaen, & Zimmermann, 2012) find weak short-term reactions and negative long-run performance for German U.S.-listed firms.

Together, these studies show that long-run underperformance is common across cross-listing events, particularly when listings are motivated by favorable valuation conditions.

2.3.2 Relevance for Move Types

These valuation dynamics extend conceptually to all four relisting pathways. IPO and SPAC pathways typically entail valuations influenced by sentiment and supportive market climate, making timing effects particularly relevant. MOVED listings involve already listed firms where information asymmetry is lower, but valuation pressures remain relevant. DIRECT listings emphasize liquidity and visibility rather than capital raising but still face post listing performance challenges documented in the literature. Thus, although the procedural procedures vary, the economic outcomes documented in the cross-listing literature apply across pathways.

2.4 Governance, Liquidity and Information Environment

(Miller & Lel, 2006) show that U.S. exchange listings strengthen governance by increasing CEO turnover sensitivity to poor performance, especially for firms from weaker investor-protection regimes. (Aljifri, Grove, & Victoravich, 2014) show that listing standards reduce structural fraud risks but do not fully mitigate behavioral risks such as insider trading. Liquidity research shows that cross-listed firms become more tied to U.S. liquidity (Dang, Moshirian, & Zhanga, 2015) yet may experience increased domestic liquidity over time (Ghaffar, Azmat, & Hassan, 2022). (Botchwey & Aubert, 2025) demonstrate that U.S. trading venues reflect fundamental information more sharply than European exchanges. These mechanisms are not specific to ADRs. Any transition of primary trading activity to the U.S. including MOVED, IPO, SPAC, or DIRECT, exposes firms to the same liquidity and governance environment.

2.5 Implications for This Thesis and Integration of Move Types

The provided Literature yields several implications for analyzing the four relisting pathways. Structural incentives are common across all move types as shown by (Gati, 2025), since each pathway provides access to a deeper and more liquid U.S. market with greater institutional participation. Economic mechanisms are also shared across pathways. (Foerster, 1999) documents segmentation and recognition effects that apply to any form of U.S. market entry. (Craig Doidge, 2004) highlights investor protection and bonding mechanisms that are

particularly relevant for firms seeking credibility and access to growth capital. Valuation and timing play a central role. (Li, Mittoo, Song, & Zhen, 2019) show that market conditions significantly influence listing timing, an effect that is strongest for IPO and SPAC pathways. IPO and SPAC listings are most exposed to investor outlook and timing effects, while MOVED and DIRECT listings primarily emphasize liquidity and visibility. Nevertheless, all pathways transition firms into the U.S. institutional ecosystem, which the literature consistently associates with pre-listing valuation run ups and long run stock price reversals. Thus, treating all four move types collectively as Relisting Events is theoretically justified because each represents a change in the firm's primary listing market into the U.S. market framework, while differences across pathways can be explored in heterogeneity analyses.

2.6 Hypotheses

Based on the theoretical mechanisms and empirical evidence discussed in the literature, particularly relating to market segmentation (Foerster, 1999), investor recognition effects, governance bonding (Craig Doidge, 2004), liquidity migration, and long-run valuation dynamics (Li, Mittoo, Song, & Zhen, 2019), this thesis develops four testable hypotheses concerning the short-term and long-term performance of European firms that obtain a new primary listing on a U.S. exchange.

H1. Short-Term Market Reaction Hypothesis

European firms that obtain a new primary U.S. listing experience non-zero short-term abnormal returns around the listing date. This follows from evidence showing significant pre-listing and listing-week stock-price reactions around foreign listing events, with returns being economically meaningful and statistically significant in either direction (Foerster, 1999).

H2. Long-Run Underperformance Hypothesis

European firms that obtain a primary U.S. listing underperform comparable firms over long-run horizons of 12, 24, and 36 months. Prior literature consistently documents negative long-run abnormal returns following foreign listings, often attributed to timing motives, post-listing mean reversion, and adjustments in investor recognition and liquidity (Foerster, 1999) ; (Ghadhab & Hellara, 2016).

H3. Factor-Adjusted Performance Hypothesis

After controlling for common risk factors (CAPM, Fama–French, Carhart), European firms that obtain a U.S. primary listing do not exhibit statistically significant positive long-run abnormal alphas. This is consistent with the long-run event-study literature, which finds that raw underperformance often dissipates when adjusting for systematic risk through factor models (Fama, 1998).

H4. Cross-Sectional Drivers Hypothesis

Cross-sectional variation in long-run abnormal performance following United States relistings is related to firm-level characteristics such as size, valuation, leverage, profitability, and liquidity, as suggested by prior cross-listing studies (Foerster, 1999).

3. Data & Methodology

This chapter outlines the data sources used in the empirical analysis, the construction of the sample of European firms obtaining a new primary listing in the United States, the event identification process, and the methodological structure used to evaluate short-term and long-term stock performance. The structure follows standard event-study methodology and corresponds to the procedures of prior capital-market research.

3.1 Data Sources

The empirical analysis draws on four primary datasets that provide market data, accounting fundamentals, firm identifiers, and risk factor information. These data sources are standard in empirical finance literature and are accessed through established academic databases.

Variable construction and empirical procedures are described in detail in the methodology section to ensure transparency and facilitate replication by researchers with appropriate data access. CRSP provides daily and monthly U.S. equity data including daily stock returns (RET), monthly returns for long run buy and hold calculations, market capitalization computed as price times shares outstanding and exchange and share codes (EXCHCD) and (SHRCD). Daily CRSP returns are used for the thirty-day event window, while monthly returns are used for long run BHAR calculations and calendar time regressions. Compustat delivers firm level accounting and fundamental data including total assets, equity, and leverage components (DLC, DLTT), profitability measures (IB, NI, OIADP), cash holdings

(CHE), revenue variables (SALE, REVT), property plant and equipment and capital expenditures (PPENT, CAPX), shares outstanding and prices (CSHO, PRCC_F), and market value measures (MKVALT, where available). These fundamentals are used in the cross-sectional regressions and are taken from the fiscal year immediately preceding the U.S. listing.

The CCM link ensures accurate mapping of Compustat's GVKEY to CRSP's PERMNO, enabling consistent alignment of returns and fundamentals. Monthly risk factor returns are sourced from Kenneth French's data library including Excess Market return (Mkt-RF), Size factor (SMB) and Value factor (HML) from the Fama French three factor model, Profitability factor (RMW) and Investment factor (CMA) from the five-factor model, Momentum (MOM) for the Carhart four factor model, and the U.S. risk free rate (RF). These factors are used to compute factor adjusted abnormal performance and to estimate calendar time portfolio regressions.

The construction of the relisting sample begins with a proprietary dataset provided by New Financial, whose cross-border listings project manually tracks primary listing movements across global equity markets. Their database identifies all European firms that obtained a new primary listing on a major U.S. exchange, during the period 2015 to 2024. This dataset includes the firm's name, country of origin, industry classification, and the precise month in which the U.S. listing became effective. It also records the nature of the listing event, distinguishing between IPO-type U.S. entries, SPAC mergers, direct listings, and venue migrations. Building upon this groundwork, I manually enriched and validated the New Financial dataset by merging it with CRSP and Compustat identifiers (PERMNO and GVKEY) and by cross-checking event dates and firm characteristics. This augmented dataset acts as the core for the event-study design and allows accurate classification of relisting mechanisms throughout the full sample of European firms entering U.S. capital markets. All return series are expressed in U.S. dollars, upholding consistency between relisting firms and matched European peers.

3.2 Sample Construction

The initial sample includes all European firms recorded in CRSP with a first U.S. trading date between 2015 and 2024. The sample is cleaned in several steps. First, firm identifiers PERMNO and GVKEY are merged using the CRSP and Compustat Merged database. Firms

lacking a valid first trading day timestamp or continuous daily coverage in CRSP are then excluded. Accounting data are aligned to the last completed fiscal year prior to the U.S. listing. To reduce the influence of outliers, all fundamental variables are winsorized at the five percent level on a two-sided basis. Finally, peer matching is conducted to estimate abnormal performance in both the short run and the long run. Each relisting event is subsequently classified into one of four categories. MOVED firms switched their primary listing to the United States having previously been primarily listed in Europe. SPAC firms listed in the United States after being acquired by a U.S. listed SPAC. DIRECT firms listed directly in the United States without issuing new shares. IPO firms went public directly on the U.S. market. Although economically distinct, each represents a transition into a new primary listing in the United States. Therefore, baseline analyses pool all firms, while move-type indicators are included in robustness checks. As a result of differing data requirements, effective sample sizes vary across analyses. Short-term event studies rely on firms with sufficient daily return coverage, long-run BHAR analyses require continuous monthly returns, and factor regressions further restrict the sample to firms with a minimum post-listing return history.

3.3 Event Identification

To ensure consistent alignment across firms, two event definitions are used. For the daily event date representing the short term, t equals zero is defined as the first CRSP trading day of the new U.S. listing. Daily returns are extracted from $t = -250$ to $t = +30$. For the monthly event month representing the long term, Month zero is defined as the calendar month in which the U.S. listing begins. Long run calculations start in Month plus one to avoid contaminating long run performance with initial event reactions. The variable `event_month` in YYYY MM format uniquely identifies each relisting event.

3.4 Event Study Methodology (Short-Term)

Short-term market reactions are evaluated using a standard event-study design centred around the first U.S. trading day of the stock. The event date corresponds to the first CRSP-recorded trading day following the initiation of the new primary listing. To obtain a stable benchmark of normal expected returns, daily data from the period to relative to the event date are used as the estimation window. Within this pre-event window, a market model is estimated using ordinary least squares, regressing firm-level daily returns on the U.S. value-weighted market

return (VWRETD). The resulting fitted values serve as expected returns in the absence of the listing event.

Daily abnormal returns for the event window after the listing are computed as the difference between the actual realized return and the model-implied expected return, formally defined as:

$$AR_{i,t} = R_{i,t} - \hat{R}_{i,t},$$

where $R_{i,t}$ denotes the raw CRSP return for firm i on day t , and $\hat{R}_{i,t}$ represents the model-predicted return based on pre-event factor loadings. Aggregating these abnormal returns over the post-event horizon yields firm-level cumulative abnormal returns. The baseline event window used in the empirical analysis is defined as the first 30 trading days after the listing, leading to the cumulative measure

$$CAR_{i,0:30} = \sum_{t=0}^{30} AR_{i,t}$$

To isolate the effect of the U.S. listing from broader equity market movements affecting comparable companies, abnormal returns are also benchmarked against European peers. Each relisting firm is assigned a set of control firms that remained listed in Europe during the event period and that can be matched on both industry and size at the month of listing. Industry matching is based on harmonized two-digit industry classifications, while size comparability is ensured by selecting firms whose market capitalization lies within a proportional range around the relisting firm. For this peer group, daily returns are aggregated into a mean peer portfolio return. Cumulative peer performance is computed analogously to the relisting firm over the same window, producing:

$$CAR_{i,0:30}^{peer} = \sum_{t=0}^{30} \bar{RET}_{peer,i,t}$$

The peer-adjusted abnormal return therefore represents the economically relevant measure of interest and is defined as:

$$AbCAR_{i,0:30} = CAR_{i,0:30} - CAR_{i,0:30}^{peer}$$

This structure guarantees that short-run performance differences indicate valuation adjustments specifically tied to the U.S. listing rather than sector-wide or size-related movements. By combining model-based abnormal returns with a peer-adjusted benchmark using consistent event-time alignment, the technique produces a robust measurement of early-stage stock market reactions.

3.5 Long-Run Performance: BHAR Framework

Long-run performance is measured using Buy-and-Hold Abnormal Returns (BHAR) over 12-, 24-, and 36-month horizons, beginning in Month +1.

$$BHAR_{i,T} = \prod_{t=1}^T (1 + R_{i,t}) - \prod_{t=1}^T (1 + R_{peer,t})$$

Peer returns are calculated as value-weighted returns of the matched peer firms. The matching procedure is based on two criteria: the firm's industry classification and its market capitalization measured in the event month. The resulting BHAR values are subsequently winsorized at the 5% level, in line with established practice in the long-run return literature, to reduce the influence of extreme outliers. Furthermore, firms remain in the sample if at least six post-event monthly returns are available, even in cases where they are delisted thereafter.

3.6 Factor-Adjusted Performance

Firm-level regressions and calendar-time portfolio regressions are applied to evaluate complementary perspectives on long-run performance and to address concerns related to cross-sectional dependence and event clustering.

(i) Firm-Level Factor Regressions

Monthly excess returns are estimated using several standard asset pricing models. Specifically, regressions are run based on the Capital Asset Pricing Model (CAPM), the Fama–French three-factor model, the Fama–French five-factor model, as well as the Carhart four-factor model, which extends the three-factor specification through integrating a momentum factor.

$$R_{i,t} - RF_t = \alpha_i + \beta_i(Mkt - RF)_t + \varepsilon_{i,t}$$

The estimated alpha represents risk-adjusted abnormal performance. Standard errors are computed using the HC3 heteroskedasticity robust estimator, which adjusts for heteroskedasticity and is particularly suitable for constrained samples.

(ii) Calendar-Time Portfolio Regressions

Following (Fama, 1998), once firms are at least one month past their listing, they are included in a rolling calendar-time portfolio. The portfolio is constructed in both equal-weighted and value-weighted forms, with the latter using CRSP market capitalization to determine portfolio weights. Portfolio excess returns are regressed on the same factor models:

$$R_t^p - RF_t = \alpha_p + \beta_1(Mkt - RF)_t + \beta_2SMB_t + \beta_3HML_t + \dots + \varepsilon_t$$

Note that Standard errors are heteroskedasticity- and autocorrelation-consistent (HAC, 3 lags). A significant portfolio alpha indicates systematic abnormal long-run performance.

3.7 Cross-Sectional Regression Framework

To explain variation in long-run performance across firms, the following baseline regression is estimated:

$$BHAR_i = \gamma_0 + \gamma_1 Size_i + \gamma_2 BTM_i + \gamma_3 Leverage_i + \gamma_4 Profitability_i + \gamma_5 ROA_i + \gamma_6 ROE_i + \gamma_7 CashRatio_i + \gamma_8 Tangibility_i + \gamma_9 Capex_i + \varepsilon_i$$

All fundamental variables correspond to the fiscal year preceding the listing event. Consistent with standard empirical practice, they are winsorized at the 5% level to lessen the influence of extreme observations. Moreover, transformations are applied where appropriate, for instance taking the logarithm of firm size. Variance Inflation Factors (VIF) are used to test for multicollinearity and, where necessary, reduced-form models are estimated. The cross-sectional regressions are intended to be descriptive rather than causal and aim to identify systematic associations between firm characteristics and post-listing performance.

4. Empirical Results

This chapter presents the empirical evidence on the short-term and long-term stock market performance of European firms that obtain a primary listing on a U.S. exchange. The analysis moves forward in several steps based on the mythologies described above.

First, I examine the short-term market reaction in a 0–30 trading day window around the U.S. (re)listing event. Second, I analyze heterogeneity in this reaction across firm size, industry, and listing type. Third, I revisit the short-term results after data cleaning and scaling modifications to guarantee that the findings are not driven by technical issues in the construction of abnormal returns. Fourth, I analyze long-run performance over 12-, 24- and 36-months using buy-and-hold abnormal returns (BHAR) and complement this with factor-model based performance measures and calendar-time portfolio regressions. Finally, I estimate cross-sectional regressions to link long-run abnormal performance to firm fundamentals and discuss the economic mechanisms suggested by the data.

4.1 Short-Term Market Reaction to U.S. Relistings (0–30 Days)

The empirical analysis starts with a short-window event study measuring the first 30 trading days following a firm’s primary U.S. listing. For each relisting firm, I compute the cumulative return from trading day 0 (first U.S. trading day) through day 30 using daily CRSP return data. To isolate firm-specific effects from general market movements, I benchmark each relister against a matched portfolio of European peers selected on industry and firm size at the event month. Abnormal performance is defined as the difference between the firm’s cumulative return and the corresponding mean cumulative return of its peer group $AbCAR_{0,30}$.

Table 1: Descriptive statistics of short window return measures.

	<i>N</i>	<i>Mean</i>	<i>Median</i>	<i>Std</i>	<i>Min</i>	<i>25th pct</i>	<i>75th pct</i>	<i>Max</i>
AbCAR (Raw)	108	-0.0248	-0.0013	0.0976	-0.5965	-0.0035	0.0002	0.0181
AbCAR (Winsorized)	108	-0.0225	-0.0013	0.0848	-0.4467	-0.0035	0.0002	0.0060

Note: AbCAR is the firm’s cumulative return (0–30 days) minus the mean return of matched European peers; winsorized at the 2.5% tails.

The outcomes imply that relisting firms exhibit weaker market performance than their European peers during the first month after the U.S. listing. Based on the final cleaned sample of 108 events and after winsorizing extreme observations (2.5% in each tail), the mean abnormal cumulative return equals approximately –2.26%, while the median is approximately - 0.13%. This confirms that the central tendency of abnormal performance is negative across the sample. Although a minority of firms experience slightly positive post-listing reactions, the majority underperform relative to their matched peers, and underperformance is not driven

solely by a few extreme observations. To evaluate statistical relevance, I applied standard hypothesis tests. The results are shown in Table 2.

Table 2: Statistical tests of abnormal performance (0–30 days)

<i>Test</i>	<i>N</i>	<i>Value</i>
One-sample t-test	108	-2.77^{***}
Wilcoxon signed-rank	108	$z \approx -3.47^{***}$

Note: $*** p < 0.01$; $** p < 0.05$; $* p < 0.10$.

I conduct formal hypothesis tests based on the winsorized abnormal returns. The one-sample t-test indicates that mean abnormal performance is significantly below zero ($t \approx -2.77$, $p < 0.01$). Likewise, the Wilcoxon signed-rank test rejects the null hypothesis that median abnormal performance equals zero ($p < 0.001$).

Taken together, the outcomes reveal clear statistical evidence that European firms underperform their matched European peers over the first 30 trading days following the new U.S. listing.

4.2 Heterogeneity Analysis: Size, Industry, and Listing Type

The aggregate effect documented above may mask important differences across firm characteristics. In this section, I therefore examine whether short-term abnormal returns vary systematically by firm size, industry, and listing mechanism. The goal is to identify which types of firms drive the overall underperformance and whether the results are consistent according to theoretical forecasts about information asymmetry, investor recognition, and sentiment.

4.2.1 Size-Sorted Results: Small, Mid, and Large Relisters

To examine whether short-term abnormal performance varies systematically with firm size, I sort all relisting firms into three equally sized groups based on market capitalization measured at the month of the U.S. listing. This tercile split results in balanced groups of 36 Small, 36 Mid, and 36 Large firms. Table 3 reports summary statistics for winsorized abnormal returns over the 0–30-day window.

Table 3: 30-Day Abnormal Returns by Firm Size (Winsorized)

Size Group	N	Mean	Median	Std	Min	25th pct	75th pct	Max
Small	36	-0.05565	-0.24042	0.10538	-0.59657	-1.19862	0.01412	0.59992
Mid	36	-0.01026	-0.15831	0.08395	-0.94607	-0.94407	0.12949	0.59992
Large	36	-0.00177	-0.08394	0.06426	-0.20817	-0.20817	0.00452	0.57412

Note: AbCAR is the firm's cumulative return (0–30 days) minus the mean cumulative return of size- and industry-matched European peers. Values are winsorized at the 2.5% tails.

The mean abnormal return is most negative among small firms, followed by mid firms, while large firms exhibit values close to zero. Median values show the same pattern, indicating that underperformance is not driven by a few extreme observations. The dispersion of abnormal returns is also highest among smaller firms, consistent with greater valuation uncertainty and heterogeneous investor expectations.

To formally test whether these group-level mean returns differ from zero, I estimate separate one sample t-tests for each size category. The results are reported in Table 4.

Table 4: Statistical tests of Size sorted Results

Size Group	N	t-stat
Small	36	-2.37**
Mid	36	-3.17***
Large	36	-1.42

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Values based on winsorized abnormal returns (2.5% tails trimmed).

Table 4 shows that Small-cap relisters experience statistically significant underperformance and Mid-sized firms also generate significantly negative returns relative to their peer benchmark. In contrast, abnormal performance for Large relisters is not statistically different from zero. This implies that the aggregate underperformance documented in Section 4.1 is primarily driven by smaller and mid-sized firms.

Together, these results suggest that smaller companies face more negative repricing when transitioning to a U.S. exchange, consistent with weaker investor familiarity, lower pre-event disclosure quality, and stronger perceived uncertainty. Larger firms, by comparison, appear to undergo little systematic reassessment during the first trading month after listing.

4.2.2 Industry-Level Results

An examination of cross industry differences in short term listing reactions is conducted by grouping the sample according to the harmonised industry classification defined in Section 3. Unlike the size-based split, the industry distribution is considerably uneven, with healthcare-related firms and Technology oriented companies forming sufficiently large clusters, while the remaining industries consist of very small cell sizes, often between one and four observations per category. Conducting separate statistical inference on such micro groups would generate unstable estimates and inflate standard errors. Consistent based on empirical data practice applied in cross-listing research, industries with insufficient coverage are therefore aggregated into a single “Other” category. This follows (Craig Doidge, 2004), who explicitly pool sparse industry clusters to allow for meaningful hypothesis testing and avoid estimation bias arising from very small cell sizes.

Table 5: Summary Statistics of 30-Day Abnormal Returns by Industry Group

<i>Industry Group</i>	<i>N</i>	<i>Mean</i>	<i>Median</i>	<i>Std</i>
Healthcare	36	-0.03130	-0.00164	0.10099
Technology	13	-0.00391	-0.00115	0.08268
Other	57	-0.02099	-0.00111	0.01165

Note: Statistics based on winsorized abnormal returns at 2.5% tails.

Table 5 reports descriptive statistics of abnormal returns for the three consolidated industry groups. The findings show non-uniform performance patterns across sectors. Healthcare-related firms exhibit the most negative abnormal performance over the first 30 trading days, with a winsorized mean of approximately -3.13% and a median of -0.16% . Firms classified as “Other” also show weaker outcomes, with a mean abnormal return of -2.10% . Technology-oriented companies display a comparatively smaller decline, with average abnormal returns close to zero.

The statistical significance of the observed differences is evaluated using standard t tests against zero. Table 6 shows the statistical inference results.

Table 6: Mean-Comparison Tests of Abnormal Returns by Industry Group

Industry Group	N	t-stat
Healthcare	36	-1.91*
Technology	13	-1.21
Other	57	-1.91*

Note: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

The results show that abnormal returns within both Healthcare and the aggregated “Other” segment are statistically different from zero at the 10% significance level ($p \approx 0.064$ and $p \approx 0.060$, respectively). By contrast, Technology-oriented firms exhibit no statistically significant deviation from zero ($p \approx 0.25$). This evidence indicates that the negative short-term market reaction observed in the aggregate sample is not uniform across industries. Instead, it is concentrated among firms operating in more established, capital-intensive, regulatory-exposed or non-technology business segments, whereas technology-related relisters experience a comparatively neutral initial valuation adjustment.

4.2.3 Results by Listing Type

Differences in short term market reactions across listing pathways are examined by dividing the sample into IPO entries, SPAC listings, technical migrations, and direct listings. For each group, winsorized abnormal cumulative returns are computed over the first 30 trading days following the U.S. listing date. Table 7 reports the descriptive statistics.

Table 7: Summary Statistics of 30-Day Abnormal Returns by Listing Type

Listing Type	N	Mean	Median	Std
IPO	60	-0.02885	-0.00138	0.09795
SPAC	31	-0.02112	-0.00242	0.08013
MOVED	14	-0.00406	-0.00016	0.01130
DIRECT	3	0.01872	-0.00010	0.03575

Note: Values reported in decimal form. Returns are winsorized at the top/bottom 2.5% to reduce outlier influence.

The results show substantial heterogeneity across listing mechanisms. Firms entering the U.S. via a traditional IPO exhibit the weakest post-listing performance, with an average abnormal return of approximately -2.88% over the first 30 trading days. The median return is also negative, indicating that underperformance is not exclusively driven by a small number of

extreme observations. SPAC transactions also display economically meaningful negative average performance (mean $\approx -2.11\%$), although the variation is larger within this group. Technical migrations show considerably smaller return adjustments, with an average abnormal return close to -0.41% and a median close to zero, suggesting that these events contain considerably less new information. Direct listings represent only three firms, and their mean abnormal return is positive. However, this estimate is not statistically reliable due to the small sample size. To formally test whether abnormal returns differ from zero, one-sample t-tests are performed for each group. Table 8 summarizes the t-test statistics.

Table 8: Mean-Comparison Tests of Abnormal Returns by Listing Type

<i>Listing Type</i>	<i>N</i>	<i>t-stat</i>
IPO	60	-2.2813**
SPAC	31	-1.4676*
MOVED	14	-1.3434*
DIRECT	3	0.9068

*Note: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.*

The results confirm that the negative performance is concentrated among IPO-type listings. The average return for IPO firms is significantly below zero ($t \approx -2.28$, $p \approx 0.013$), while neither SPAC combinations nor MOVED transactions show statistically meaningful deviations. SPAC listings come close to weak significance ($p \approx 0.076$), which is consistent with the idea that valuation reassessment is considerable for part of this group, but not systematically so. For direct listings, test statistics are clearly insignificant due to limited sample size.

Overall, the short-term return reaction appears strongest when firms enter U.S. markets through issuance-based transactions. IPO events tend to involve active valuation marketing, elevated investor expectations, and discretionary timing, which increases the likelihood that prices correct downward once public trading commences. In contrast, technical migrations and non-issuance listings generally convey less new economic information and therefore trigger minimal short-term repricing.

4.4 Long-Run Performance and Robustness: BHAR, Factor Alphas, and Calendar-Time Tests

While the 30-day window captures the prompt market reaction to the U.S. listing, it does not reveal whether this effect persists over a longer horizon. To address this, I evaluate long-run performance using buy-and-hold abnormal returns (BHAR) and a set of robustness tests based on factor-adjusted alphas and calendar-time portfolio regressions.

4.4.1 Long-Run Performance Based on Buy-and-Hold Abnormal Returns

Long run performance beyond the short-term horizon is analyzed by computing buy and hold abnormal returns over 12-, 24-, and 36-month windows. BHAR captures the compounded return of a relisting firm net of the compounded return of its matched European peer portfolio and therefore reflects relative long run value effects. Table 9 summarizes the cross-sectional distribution of BHAR across firms. Mean abnormal returns are negative at the 12-month horizon, while turning positive at longer horizons. In contrast, median BHAR remains negative across all horizons, indicating that at least half of the firms underperform their peers in each window. Dispersion increases noticeably over time, reflecting the compounding structure inherent in buy and hold metrics.

Table 9: Descriptive Statistics of Long-Run Buy-and-Hold Abnormal Returns (12M, 24M, 36M)

<i>Horizon</i>	<i>N</i>	<i>Mean</i>	<i>Median</i>	<i>Std</i>	<i>Min</i>	<i>25th pct</i>	<i>75th pct</i>	<i>Max</i>
12M	105	−0.0956	−0.1652	0.5834	−1.0158	−0.5013	0.2209	2.2963
24M	105	0.1037	−0.1741	1.2217	−1.4662	−0.5443	0.4841	9.1883
36M	105	0.1216	−0.0958	1.1895	−1.8154	−0.5651	0.5979	5.7649

Note: BHAR values represent buy-and-hold abnormal performance relative to matched European peers. Statistics are winsorised at the 0.5% and 99.5% percentile levels.

To assess whether these averages differ statistically from zero, I conduct one-sample t-tests based on winsorised values. The results are reported in Table 10.

Table 10: Statistical Tests of Long-Run BHAR vs. Zero

Horizon	N	t-stat
12M	105	-1.68*
24M	105	0.87
36M	105	1.05

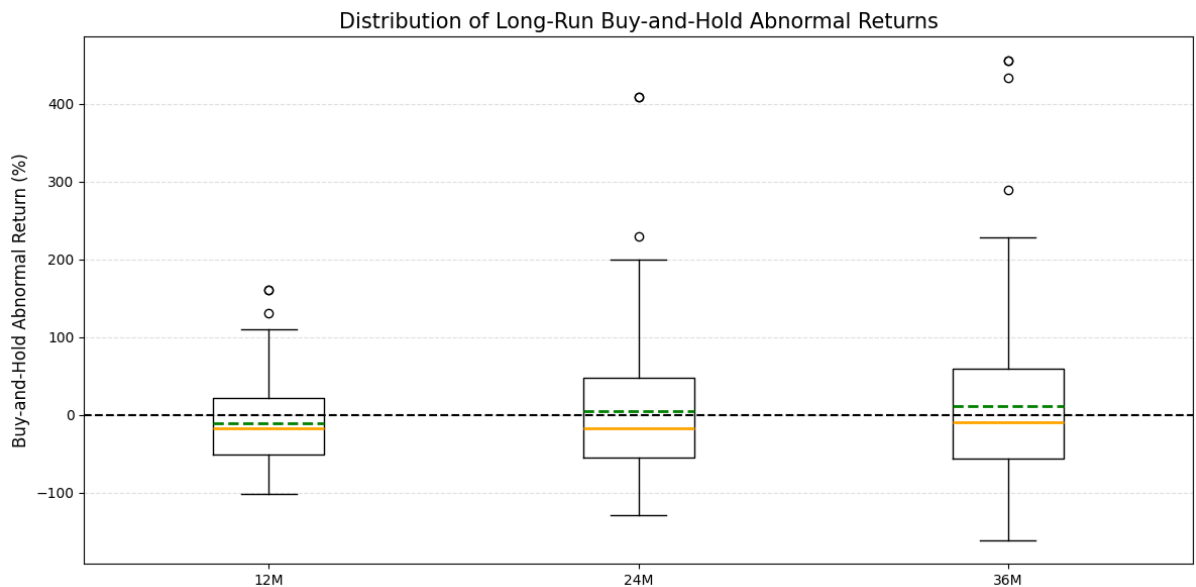
Note: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

The tests do not reject the null hypothesis of zero abnormal performance at conventional significance levels. The 12-month horizon exhibits weak evidence of underperformance ($t \approx -1.68$, $p \approx 0.096$), whereas 24- and 36-month BHAR values are statistically indistinguishable from zero. This result is consistent with the well documented inferential limitations of long-horizon BHARs, such as skewness, compounding-induced volatility and heavy-tailed return distributions, all of which weaken statistical power, see, for example, (Mitchell & Stafford, 2000).

Figure 1 visualizes the distribution of BHAR. Median abnormal returns remain below zero at all horizons, while upper-tail observations widen substantially over time. A small number of extreme positive values explain why mean performance appears less negative than medians.

Figure 1: Distribution of Long-Run BHAR.

Note: The dashed horizontal line represents zero abnormal return, the orange line denotes the median return, and the dashed green line indicates the mean return within each horizon.



Taken together, the BHAR-based evidence indicates economically meaningful underperformance for a sizeable portion of relisting firms, although statistical support remains limited when based only on BHAR figures. The next sections address this shortcoming by

examining factor-adjusted abnormal returns and calendar-time portfolios, which deliver substantially stronger inference.

4.4.3 Factor-Adjusted Performance: Firm-Level Alphas

The persistence of long-run post listing underperformance after controlling for systematic risk exposures is examined by estimating firm level alphas using three asset pricing models. These include the Fama French Three Factor model, the Fama French Five Factor model, and the Carhart four factor model. Alpha estimation begins in the month following the U.S. listing and is based on monthly excess returns relative to the U.S. risk-free rate. Firms must have sufficient post-event history to ensure valid inference. Following standard practice, I exclude firms with fewer than 12 months of post-listing returns, as short time-series horizons lead to unstable beta estimates and mechanically inflated standard errors, see (Mitchell & Stafford, 2000). This reduces the effective regression sample from 101 to 95 firms.

The resulting model intercepts represent firm-level abnormal performance net of market, size, value, profitability, investment and momentum exposures. Table 11 reports descriptive statistics for the distribution of firm-level monthly alphas across the three factor models. Across all specifications, mean alphas are negative and economically meaningful. The average monthly alpha amounts to -1.21 percent in the Fama–French three-factor model, -0.88 percent in the five-factor model, and -1.24 percent in the Carhart specification. Median alphas are also negative in all cases, ranging between -0.28 percent and -0.57 percent, indicating that the underperformance is not driven by a small number of extreme firms but is instead a broadly shared feature of the sample. Dispersion is moderate and comparable across models, suggesting that the inclusion of additional factors does not materially alter the cross-sectional variability of abnormal performance.

Table 11: Firm-Level Risk-Adjusted Performance - Mean and Distribution

<i>Model</i>	<i>N</i>	<i>Mean</i>	<i>Median</i>	<i>Std</i>
FF3	95	-0,01215	-0,00436	0,046169
FF5	95	-0,00883	-0,00277	0,051881
Carhart	95	-0,01244	-0,00571	0,045555

Note: Alphas expressed in monthly percentage units; based on firms with ≥ 12 valid post-listing return observations.

Formal statistical inference on the estimated alphas is carried out using one sample t tests, with the results reported in Table 12 for each model specification. The evidence points to negative risk adjusted performance across models. In the three-factor specification, the mean alpha is significantly below zero at the 5 percent level. The Carhart four factor model yields an even stronger result, with statistical significance at the 1 percent level. Although the five-factor model produces a smaller point estimate, the associated t statistic still indicates marginal statistical significance. Taken together, the observations imply that the negative abnormal performance noted among relisting firms cannot be fully attributed to exposure to standard risk factors.

Table 12: Statistical Tests of Factor-Adjusted Performance

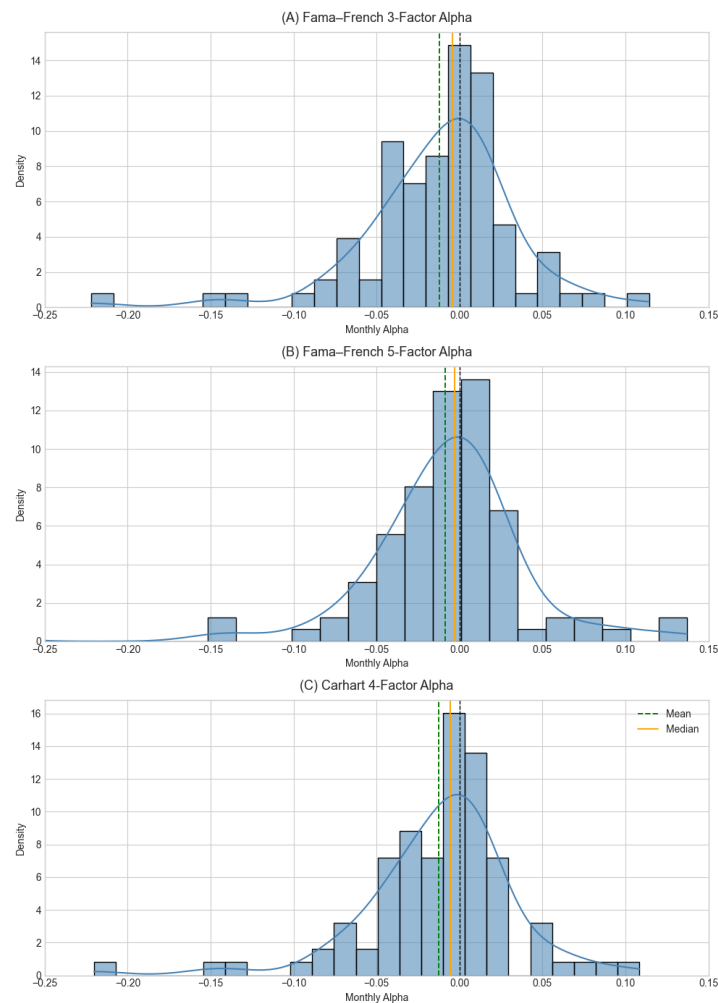
<i>Horizon</i>	<i>N</i>	<i>t-stat</i>
FF3	95	-2.564**
FF5	95	-1.659*
Carhart Alpha	95	-2.661**

Note: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

Figure 2 illustrates the distribution of monthly alphas for each factor model via histograms and kernel density estimates. Several important insights emerge from the figure. First, there is a systematic shift below zero across all specifications: for each model, both the mean and median alpha lie below zero, indicating pervasive underperformance. Second, the Fama–French five-factor model yields less negative mean estimates. This suggests that its additional factors, profitability and investment, absorb part of the negative abnormal returns, though not entirely. Third, the Carhart four-factor and Fama–French three-factor models display a more pronounced concentration of mass below zero, as evidenced by density peaks clearly located in the negative region. Finally, the distributions present the presence of moderate left-tail outliers, with some firms showing strongly negative monthly alphas (below -0.10). However, these observations are not sufficiently frequent to account for the overall pattern, which appears to be driven by broad-based underperformance rather than a small number of extreme cases.

Figure 2: Graphical Distribution of Alphas

Note: The dashed black line marks zero abnormal performance. The green dashed line shows the mean, and the orange line indicates the median alpha.



4.4.4 Calendar-Time Portfolio Regressions: Equal-Weighted and Value-Weighted

To further assess the robustness of the long-run performance results and to address concerns related to cross-sectional dependence and event clustering, this section reports calendar-time portfolio regressions following the standard approach in the long-run event literature. A single rolling calendar-time portfolio is constructed that includes all relisting firms from the first month after the U.S. listing up to 36 months thereafter. The portfolio is rebalanced monthly and evaluated using both equal-weighted and value-weighted returns. Monthly excess portfolio returns are regressed on standard asset pricing models, including the Fama–French three-factor model, the Carhart four-factor model with momentum, and the Fama–French

five-factor model. All regressions are estimated using ordinary least squares with Newey–West heteroskedasticity- and autocorrelation-consistent standard errors with three lags.

Table 13 reports the estimated calendar-time alphas. For the equal-weighted portfolio, the estimated alphas are negative across all model specifications. The alpha is marginally statistically significant under the Fama–French three-factor model ($\alpha = -0.0092$, $t = -1.78$, $p = 0.076$) and the Carhart model ($\alpha = -0.0090$, $t = -1.71$, $p = 0.088$) but becomes statistically insignificant once the Fama–French five-factor model is applied. This pattern suggests that the weak underperformance observed in the equal-weighted portfolio is largely absorbed by additional risk factors. For the value-weighted portfolio, the estimated alphas are positive but statistically insignificant across all models. Under the three-factor model, the alpha amounts to 0.0069 ($t = 1.21$, $p = 0.226$), with similar magnitudes and significance levels obtained for the Carhart and five-factor specifications. Overall, the value-weighted results provide no evidence of abnormal performance in calendar time.

Table 13: Calendar-Time Portfolio Alphas

<i>Portfolio</i>	<i>Model</i>	<i>N</i>	<i>R</i> ²	<i>alpha</i>	<i>t</i> -stat
EW	FF3	119	0,441627	-0,00915	-1,77531*
EW	Carhart	119	0,442056	-0,00897	-1,70697*
EW	FF5	119	0,472605	-0,00698	-1,33392
VW	FF3	119	0,479414	0,00693	1,212009
VW	Carhart	119	0,48042	0,007267	1,225862
VW	FF5	119	0,479532	0,00677	1,175002

*Note: ***, **, and * denote significance at the 1%, 5%, and 10% levels.*

Taken together, the calendar-time portfolio regressions do not indicate economically or statistically robust abnormal returns following U.S. relistings. The absence of significant alphas across weighting schemes and factor models suggests that the long-run performance of relisting firms can be largely explained by common risk factors rather than persistent mispricing. The presented evidence are consistent with the firm-level factor regression results reported in Section 4.4.3 and support the interpretation that the long-run effects of U.S. relistings are not associated with systematic abnormal returns in calendar time

4.5 Cross-Sectional Analysis and Mechanism Tests

The final step of the empirical analysis examines whether long-run abnormal performance following U.S. relistings can be explained by firm-level characteristics and whether buy-and-

hold abnormal returns (BHARs) and factor-model alphas capture the same underlying performance dimension. This investigation presents insight into whether detected underperformance reflects differences in risk exposure, valuation effects, or structural firm characteristics.

4.5.1 Relationship Between BHARs and Factor Alphas

Whether buy and hold abnormal returns and factor model alphas reflect similar dimensions of long run performance is evaluated using correlations between peer adjusted BHARs and firm level alphas over 12-, 24-, and 36-month horizons, reported in Table 14.

Table 14: Correlation Between BHARs and Factor Alphas

<i>Model</i>	<i>FF3 α</i>	<i>FF5 α</i>	<i>Carhart α</i>
BHAR_12M	0.303	0.274	0.303
BHAR_24M	0.363	0.330	0.364
BHAR_36M	0.440	0.403	0.440

Note: This table reports on correlations between peer-adjusted buy-and-hold abnormal returns (BHARs) and firm-level factor alphas.

Across all horizons and model specifications, BHARs and alphas are positively correlated. Correlation coefficients range between 0.27 and 0.30 at the 12-month horizon, increase to approximately 0.33–0.36 at the 24-month horizon, and reach values of about 0.40–0.44 at the 36-month horizon. This monotonic increase indicates that the relationship between the two performance measures strengthens over time.

To further quantify this relationship, Table 15 reports cross-sectional regressions of three-year BHARs on firm-level factor alphas.

Table 15: Cross-Sectional Regressions of BHAR_36M on Factor Alphas

<i>Model</i>	<i>Coefficient (Alpha)</i>	<i>t-stat</i>	<i>R²</i>
FF3	11.858***	4.72	0.194
FF5	9.656***	4.24	0.162
Carhart	12.027***	4.73	0.194

*Note: This table reports cross-sectional regressions of BHAR_36M on firm-level factor alphas. ***, **, and * denote significance at the 1%, 5%, and 10% levels.*

The estimated slope coefficients are positive and highly statistically significant across all models. For the Fama–French three-factor and Carhart specifications, the slope estimates are close to 12, while the corresponding estimate for the five-factor model is approximately 9.7. The explanatory power of the regressions is economically meaningful, with R^2 values between 0.16 and 0.19. Overall, the results show that BHARs and factor-model alphas are closely related and capture similar dimensions of long-run performance following U.S. relistings.

4.5.2 Cross-Sectional Regressions Using Fundamentals

Cross sectional variation in long run performance is analyzed using regression models that employ both peer adjusted buy and hold abnormal returns and factor model alphas as dependent variables. All accounting variables are measured in the last fiscal year prior to the U.S. relisting and are winsorized to diminish the influence of extreme observations.

Table 16 reports reduced-form cross-sectional regressions focusing on three core firm characteristics: firm size (log market capitalization), the book-to-market ratio, and the cash ratio. These variables capture the main dimensions of scale, valuation, and liquidity commonly emphasized in the asset-pricing and event-study literature, while keeping the number of regressors small relative to the available sample size. Results from fuller specifications including additional accounting controls are reported in Appendix A1.

Table 16: Reduced Cross-Sectional Regressions

<i>Variable</i>	<i>BHAR_36M</i>	<i>α_{FF5}</i>	<i>$\alpha_{Carhart}$</i>
log (Size)	0.028	0.0049	0.0033
B/M	−0.163	0.011	0.001
Cash Ratio	0.079	0.041	0.027
R^2	0.014	0.091	0.052
N	76	66	66

Note: Reduced-form cross-sectional regressions.

When three-year BHARs are used as the dependent variable, the reduced regressions exhibit very limited explanatory power. The estimated coefficients on firm size, book-to-market ratio, and cash holdings are statistically insignificant, and the overall R^2 is close to zero. This indicates that observable firm characteristics explain little of the cross-sectional variation in

long-run peer-adjusted abnormal returns following U.S. relistings. In contrast, when factor-model alphas are used as dependent variables, some evidence of systematic cross-sectional patterns emerges. In particular, the cash ratio enters with a positive and statistically significant coefficient in the Fama–French five-factor specification and with marginal significance in the Carhart model. Firm size enters with a positive but statistically insignificant coefficient, while the book-to-market ratio does not display a systematic relationship with risk-adjusted performance. Overall, the cross-sectional findings show that accounting fundamentals have limited explanatory power for long-run abnormal returns measured using BHARs. When performance is evaluated using risk-adjusted alphas, liquidity-related characteristics appear to play a modest role, while other firm-level characteristics remain largely unrelated to post-relisting performance.

Chapter 5 Discussion

This chapter discusses the empirical findings of the thesis and situates them within the broader context of the existing literature and the underlying theoretical framework.

5.1 Summary of Main Empirical Findings

This thesis analyzes the short term and long run stock price performance of European firms that establish a new primary listing on a United States exchange between 2015 and 2024. The empirical setting distinguishes between four relisting pathways, namely primary listing migrations, United States initial public offerings, special purpose acquisition company listings, and direct listings. While these pathways differ in legal structure and execution, they share the central economic characteristic that the firm relocates its main trading venue to the United States.

Across methodologies and horizons, several consistent empirical patterns emerge. First, abnormal stock returns in the immediate vicinity of the listing event are weak. Although individual firms exhibit heterogeneous price reactions, average announcement period abnormal returns remain economically small and statistically insignificant.

Second, long run performance is negative when evaluated using peer adjusted buy and hold abnormal returns. This underperformance does not occur instantaneously but accumulates progressively over time. It becomes progressively stronger at longer horizons, particularly over 24 and 36 months following the relisting event.

Third, risk adjusted performance measures present a more differentiated picture. Firm level abnormal returns estimated from standard asset pricing models are generally weaker in magnitude than buy and hold abnormal returns and rarely statistically significant. Nevertheless, buy and hold abnormal returns and factor model alphas are strongly positively correlated, especially at longer horizons. This relationship indicates that both measures capture related dimensions of post listing performance rather than fundamentally distinct phenomena.

Fourth, calendar time portfolio regressions do not provide evidence of robust positive abnormal alphas for either equal weighted or value weighted portfolios. This suggests that the long run underperformance identified in event time analyses does not translate into systematic excess returns at the portfolio level once common risk factors are considered.

Finally, cross sectional regressions reveal that firm level fundamentals explain little of the variation in long run abnormal performance. When performance is measured using buy and hold abnormal returns, accounting variables display limited explanatory power. When factor adjusted performance measures are used, liquidity related characteristics proxied by cash holdings display a modest positive association with post listing performance, while other firm characteristics remain largely insignificant.

Taken as a whole, the empirical evidence suggests that European firms transitioning to United States primary listings do not experience sustained positive abnormal stock performance. Instead, the results point to muted short-term market reactions and negative long-term performance patterns that are only partially absorbed by standard risk adjustment procedures and are largely unrelated to perceptible firm level fundamentals.

5.2 Short-Term Market Reactions and Hypothesis H1

Hypothesis H1 predicts nonzero short term abnormal returns around the listing date for European firms obtaining a new primary listing in the United States. This hypothesis is motivated by market segmentation and investor recognition literature, which argues that access to deeper and more liquid capital markets can generate discrete valuation effects at the time of listing. Early empirical studies document economically meaningful announcement period reactions for foreign firms entering United States exchanges, including significant abnormal returns surrounding the listing event and pronounced valuation run ups prior to

listing (Foerster, 1999). Related evidence suggests that United States listings generate stronger short term price reactions than listings on other international exchanges (Dijk, 2009). The short-term results of this thesis provide limited empirical support for Hypothesis H1. Average abnormal returns in the immediate post listing window are small and statistically insignificant across the full sample. While some firms experience positive or negative reactions, these effects do not aggregate into a systematic short-term premium associated with the relisting event. The absence of strong announcement period effects does not necessarily contradict the theoretical mechanisms emphasized in the earlier literature. Several papers point out that valuation effects related to foreign listings may be incorporated into prices prior to the actual listing date, as investors expect improved liquidity and wider investor access (Foerster, 1999). In such an environment, measured announcement period returns may understate the total valuation impact of the listing decision. In addition, the weak short-term reactions observed in this study likely reflect differences in both sample composition and economic environments. The post 2015 period is characterized by high information availability, extensive analyst coverage, and increased global investor integration. Under these conditions, information related to listing intentions may be priced well ahead of the formal listing event, reducing the scope for discrete price adjustments at the listing date itself. This interpretation is consistent with more recent evidence showing substantial variation in announcement period abnormal returns across listing destinations and market regimes (Dijk, 2009), (Botchwey & Aubert, 2025).

Overall, the short-term evidence indicates that European firms transitioning to United States primary listings do not experience strong announcement period abnormal returns in the examined window. Although short-term abnormal returns are statistically different from zero for parts of the sample, their economic magnitude is modest and the direction is predominantly negative, which stands in contrast to the valuation gains emphasized in the early cross-listing literature. Hypothesis H1 is therefore not strongly supported by the empirical results, although the findings remain consistent with an expanded literature emphasizing anticipation effects and transforming market structures.

5.3 Long-Run Performance and Valuation Effects (Hypothesis H2)

Hypothesis H2 states that European firms obtaining a new primary United States listing underperform comparable firms over long run horizons of twelve, twenty-four, and thirty-six months. This hypothesis is firmly grounded in the cross-listing literature, which consistently

documents negative long run abnormal performance following foreign listing events, particularly when listings coincide with favorable valuation conditions or times of increased market sentiment. The long run results of this thesis provide support for Hypothesis H2. Peer-adjusted buy and hold abnormal returns exhibit substantial heterogeneity across horizons. While mean abnormal returns are sensitive to extreme positive observations and are not statistically different from zero at longer horizons, median abnormal returns remain negative across all examined windows. While underperformance is relatively modest at the 12-month horizon, it becomes more pronounced at longer horizons when considering the distribution of outcomes, indicating that performance reversals unfold gradually rather than immediately after the listing event.

This distributional pattern reflects well-documented limitations of long-horizon buy and hold abnormal returns, including skewness and compounding-induced volatility.

This pattern closely aligns with prior empirical findings. (Foerster, 1999) documents substantial valuation run-ups prior to United States listings followed by negative abnormal returns in the subsequent period. (Bancel, Mittoo, & Kalimipalli, 2009) report significant three-year underperformance for European firms issuing American depositary receipts. Similar long run reversals are documented by (Bessler, Kaen, & Zimmermann, 2012) for German firms and by (Ghadhab & Hellara, 2016), who show that value creation associated with foreign listings tends to weaken or reverse over time. More recent evidence points out the role of listing timing, with firms entering United States markets during periods of elevated valuations exhibiting particularly weak subsequent performance (Li, Mittoo, Song, & Zhen, 2019). Although this thesis does not explicitly test listing timing or prelisting price dynamics, the observed gradual accumulation of negative abnormal returns is consistent with valuation-based explanations and post listing mean reversion. Importantly, the negative long run performance is not limited to a particular relisting pathway. Despite institutional differences between United States initial public offerings, special purpose acquisition company listings, direct listings, and primary listing migrations, all pathways involve a shift of the firm's main trading venue into the United States market.

The consistency of long run underperformance across entry modes supports the interpretation that the economic consequences of United States relistings are driven primarily by market level valuation trends instead than by the specific legal or procedural form of entry. Overall, The long-run results of this thesis provide qualified support for Hypothesis H2.

5.4 Risk Adjustment, Factor Alphas, and Hypothesis H3

Hypothesis H3 states that, after controlling for common risk factors, European firms obtaining a new primary United States listing do not display statistically significant positive long run abnormal alphas. This hypothesis is motivated by concerns raised in the long run event study literature regarding the sensitivity of abnormal return estimates to model specification (Fama, 1998). The empirical results are broadly consistent with Hypothesis H3. Firm level factor regressions and calendar time portfolio regressions do not yield robust evidence of positive abnormal alphas following United States relistings. Estimated alphas are predominantly negative and, in many specifications, particularly in calendar time portfolio regressions, statistically insignificant, notably in comparison to the magnitude of negative buy and hold abnormal returns documented in event time analyses.

These outcomes align with the critique articulated by (Fama, 1998), who argues that long run abnormal returns may partly reflect unaccounted for systematic risk exposures rather than persistent mispricing. The weaker alpha estimates observed in this thesis suggest that a portion of the long run underperformance captured by buy and hold abnormal returns is absorbed once standard risk factors are considered. At the same time, the analysis finds that risk adjustment does not fully eliminate the observed performance patterns. Buy and hold abnormal returns and factor model alphas are strongly positively correlated, particularly at longer horizons. This relationship suggests that buy and hold abnormal returns capture economically meaningful differences in post listing performance that are only partially attributed to standard asset pricing models.

Taken together, the lack of convincing positive alphas supports Hypothesis H3 and supports the view that United States relistings do not generate systematic abnormal returns once common risk factors are controlled for. However, the close correspondence between event time and risk adjusted performance measures points to a more sophisticated interpretation in which both valuation changes and risk-based explanations contribute to recorded long run outcomes.

5.5 Firm Characteristics, Liquidity, and Cross-Sectional Evidence (Hypothesis H4)

Hypothesis H4 suggests that cross sectional variation in long run abnormal performance following United States relistings is related to firm level characteristics such as size,

valuation, leverage, and profitability. This hypothesis is motivated by prior research suggesting that governance quality, liquidity status, and financial structure may influence the valuation effects of foreign listings (Foerster, 1999), (Miller & Lel, 2006), (Dang, Moshirian, & Zhanga, 2015). The cross-sectional evidence provides limited support for Hypothesis H4. When peer adjusted buy and hold abnormal returns are used as the dependent variable, firm fundamentals explain only a small fraction of the variation in long run performance. Coefficient estimates are generally small and statistically insignificant, and overall explanatory power is low. These outcomes suggest that long run underperformance following United States relistings is not mainly driven by observable accounting characteristics measured at the time of the relisting. This result is consistent with the broader cross-listing literature, which emphasizes market level mechanisms such as changes within investor base, information environment, and valuation dynamics instead than firm specific balance sheet variables (Foerster, 1999). While governance bonding and enhanced disclosure standards associated with United States exchange listings may affect valuation levels (Craig Doidge, 2004), existing evidence provides limited support for systematic differences in post listing stock return performance among firms. When factor model alphas are used as the dependent variable, some modest cross-sectional patterns emerge. Firms with higher cash holdings prior to the relisting tend to exhibit slightly stronger risk adjusted performance. This association is economically small and only marginally statistically significant and should therefore be interpreted with caution. The existing literature offers limited theoretical guidance regarding this mechanism. While liquidity and financial maneuverability have been shown to influence firms' exposure to United States market climates and trading activity (Dang, Moshirian, & Zhanga, 2015) and (Ghaffar, Azmat, & Hassan, 2022) clear expectations concerning the relationship between cash holdings and post listing abnormal alphas remain scarce. Accordingly, the observed association should be viewed as suggestive rather than conclusive.

Taken together, the cross-sectional outcomes imply that firm level characteristics play a secondary role in explaining long run abnormal performance following United States relistings. Hypothesis H4 is therefore only partially supported.

5.6 Implications and Limitations

The findings of this thesis have important effects on corporate decision makers, investors, and regulators, while also being subject to several limitations. From a corporate perspective, the results suggest that obtaining a new primary United States listing does not, on average, result

in enduring positive abnormal stock performance. Although United States listings may strengthen liquidity, visibility, and access to a broader investor base, these benefits do not appear to translate into persistent excess returns for shareholders. This pattern is consistent with valuation timing explanations and post listing reversals documented in the cross-listing literature and stresses the importance of thoughtfully examining the strategic motivations underlying relisting decisions. For investors, the results show that United States relistings by European firms are unlikely to constitute a systematic source of abnormal returns. The absence of convincing positive alphas in both firm level and portfolio level analyses suggests that any valuation effects associated with United States listings are difficult to exploit using simple trading strategies. The observed long run underperformance in buy and hold abnormal returns instead stresses the relevance of mean reversion and listing related valuation dynamics in investment evaluation. From a policy perspective, the findings add to the continuing argument on structural differences between United States and European capital markets. While United States exchanges continue to attract foreign firms, the evidence suggests that this appeal does not necessarily reflect superior long run stock performance outcomes. Rather, the outcomes point to the role of market structure and investor composition in affecting listing decisions, complementing recent discussions on the difficulties encountered by European equity markets (Gati, 2025).

Several limitations should be acknowledged. The sample size is relatively small, indicating the limited number of European firms obtaining new primary United States listings in the post 2015 period. While this emphasis guarantees a clean and economically coherent sample, it reduces statistical power and limits the ability to identify nuanced effects, particularly in cross sectional analyses. In addition, the study is confined to a period distinguished by significant global integration and evolving listing practices, which may constrain the generalizability of the results. Finally, although multiple empirical approaches are employed, the analysis does not aim to establish causal relationships or directly test specific mechanisms such as listing timing or changes in investor recognition.

Despite these limitations, the analysis yields a coherent and literature consistent assessment of the performance consequences of United States relistings by European firms. By combining event time and calendar time methodologies and integrating multiple relisting pathways within a consolidated empirical framework, the thesis provides a thorough perspective on long run performance developments while identifying valuable directions for future research.

Appendix

Table A1: Full Cross-Sectional Regressions

<i>Variable</i>	<i>Coefficient</i>	<i>t-stat</i>
log(Size)	0.026	0.36
Book-to-Market	−0.334	−0.92
Leverage	−1.134	−1.39
Profitability	−0.020	−0.04
ROA	0.013	0.10
ROE	0.030	0.96
Cash Ratio	−0.631	−1.10
Tangibility	−1.325	−1.18
CAPEX / Assets	2.643	1.06
Constant	0.637	0.89
R ²	0.076	
Adj. R ²	−0.050	
N	76	

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