

Global Growth from an Investor's Point of View - Initial Public Offerings in the Fashion and Accessories Industry

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Abstract

In this paper we analyze the long-run stock price performance of 207 initial public offerings in the fashion and leather accessories industry between 1990 and 2007. We find a highly significant underperformance of IPO stocks compared to corresponding benchmark indices. Cross-sectional regression analysis reveals that underperformance is mainly driven by offerings of smaller, less mature companies that are not taken public by a prestigious underwriter. Nevertheless, we also find that fashion IPO firms experience a considerable reduction in their systematic risk exposure due to the realization of real options which helps to explain at least part of their seemingly poor stock price performance.

JEL Classifications: D53, G32, L67

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1. Introduction

The fashion and leather accessories industry exhibits a very heterogeneous business structure (Barnett, Grolleau, & El Harbi, 2010). On the one hand, a few large, internationally diversified conglomerates such as LVMH, Phillips-Van Heusen and PPR regularly add further brands to their portfolios and steadily increase company sizes. On the other hand, there are still many fashion houses such as Lanvin, Roberto Cavalli and Versace that are single-brand businesses, which are still modest in scale. For these smaller companies it is not uncommon to be closely connected and publicly associated with central personalities such as their founder or present creative director (see also Pucci, Simoni, & Zanni, 2013).

This heterogeneity of the fashion industry is also apparent in firms' ownership structures. While most of the large firms have been publicly listed for many years, some founders of smaller, private fashion companies such as Jil Sander, Valentino Garavani and Wolfgang Joop have sold their businesses to financial sponsors or strategic investors. Selling to private investors however, is not the only option for a company to obtain fresh capital. In this paper, we will instead analyze the determinants of the long-run stock price performance of initial public offerings in the fashion and accessories industry.

The industry has seen a considerable number of high-profile IPOs that were conducted on foreign stock exchanges. The most recent one was the \$2.1bn offering of the Italian luxury house Prada in

June 2011 on the Hong Kong stock exchange. Further examples include Esprit Holdings that was also initially listed in Hong Kong and the intended European IPO of US apparel manufacturer Tommy Hilfiger which was eventually withdrawn by owners Apax Partners. This is a rather unusual finding, since many empirical studies find that foreign issuers significantly underperform domestic offerings (LiPuma, 2012).

According to statistics of the World Trade Organization, the apparel textiles industry has accounted for \$527bn or 4.3% of the world's trade volume in 2009 while growing at an impressive CAGR of 5.0% over the course of the years 2000 to 2009 (WTO, 2010). Despite that, the fashion industry receives little attention by financial researchers so far. Because of its importance to international trade, and the already described peculiarities of the business and owner structure, it appears worthwhile to examine the fashion industry in more detail. This work analyzes 207 international equity offerings conducted between 1990 and 2007. We analyze deal characteristics, initial underpricing and the long-run stock price performance for up to three years following these IPOs. We further conduct cross-sectional regression analyses to identify the key drivers of post-IPO stock price performance. Finally, we also analyze shifts in fashion company betas in order to control for systematic risk changes following initial public offerings.

The aim of this paper consists in presenting the major characteristics of fashion industry IPOs, while having the focus on the stock performance within the three years following the initial offering. We will analyze how this performance can be generally characterized and which factors are its major driving forces. This study thereby focuses on an industry that received little research attention so far. The ultimate goal consists in providing best practice implications, for instance for the execution of future IPOs within this branch of industry.

The paper proceeds as follows. Section 2 gives an overview of previous research conducted in the field of initial public offerings. It focuses mainly on the going-public decision process, initial underpricing as well as the long-run underperformance of IPO companies. Section 3 illustrates the data and methodology used in our analysis. Section 4 presents the results of our long-term event study as well as our cross-sectional regression and changes in systematic risk analysis. Section 5 summarizes our findings and concludes.

2. Literature Overview

The initial public offering of a company's equity represents a major corporate event and has been extensively researched throughout the corporate finance literature. A recent comprehensive review of various IPO-related research issues is given in Eckbo, Masulis, and Norli (2007) and Ritter (2003). A theoretical model for the decision to go public has been discussed by Fischer (2000) while Pagano, Panetta, and Zingales (1998) show empirical determinants of the going public decision using a data set of Italian companies. They identify company sizes and market-to-book ratios as two of these key determinants and also find a significant drop in cost of credit following an IPO. They conclude that this is due to higher bargaining power of public firms in bank negotiations. Ang and Boyer (2009) further use the aftermath of the 1987 stock market crash as an example for the seasonal variability in IPO activity.

The major part of the existing IPO literature, however, has rather focused on two phenomena that have been reported in many empirical studies: Short-term underpricing and long-term underperformance of initial public offerings. Underpricing constitutes the percental difference between a security's offer price and its first closing price in the secondary market. Since these price differences represent foregone gains to the issuing company, underpricing is also commonly referred to as "money left on the table". One of the first studies that have illustrated the extent of IPO underpricing was carried out by Ibbotson (1975), who reported an average price jump of 11.4% for a sample of 2,650 US IPOs between 1960 and 1969.

Since then, countless papers have analyzed the amount of underpricing in various markets and different time periods. Extensive survey of changes in underpricing over time is given by Dolvin and Pyles (2007) and Loughran and Ritter (2004). Further research has also focused on the influence of institutional frameworks on short-term IPO performance. The positive role venture capital companies play in the creation of public companies has been analyzed e.g. by Bessler and Kurth (2007), while Cooney, Singh, Carter, and Dark (2001) report a negative relationship between underwriter reputation and IPO underpricing. Jain and Martin Jr. (2005) find similar results for the impact of audit quality on IPO performance.

Various studies have also concentrated on the theoretical explanations of underpricing. According to Soana and Regalli (2010) the reasons can be fundamentally separated into four different categories: (i) aversion to risk on the part of the placement participants, (ii) the existence of information asymmetries, (iii) signaling and certification requirements with regard to the securities, (iv) price support activities.

(i). Regarding aversion of risk, underpricing is the result of the issuer and underwriting syndicate being keen to ensure that all securities will be sold. To ensure this, the issuer and underwriter may deliberately decide to offer the shares below their fair value.

Furthermore underpricing can be used to reduce the risk of possible lawsuits (Lowry & Shu, 2002; Tinic, 1988). The Investor may consider suing the issuer and/or the underwriter of incomplete information disclosure. For the issuer the potential costs of litigation are substantial. In this context, underpricing may be viewed as a form of insurance against legal proceedings.

(ii). Models describing underpricing as the result of information asymmetries can be divided into two parts: Asymmetries between the investors on the one side and the relationship between the issuer and the financial intermediaries on the other side. Asymmetry between the investors has been investigated by Rock (1986). Here IPO underpricing is attributed to asymmetrically informed investors ("lemon's market"). This model has been advanced by Beatty & Ritter (1986). The core of these models consists in uninformed investors not being able to differentiate between "good" and "bad" firms. In order to stay in the market they systematically have to overpay. As a result the shares experience an exceptional good short-term-performance after the IPO.

Asymmetries between issuer and financial intermediaries, which are favorable for the intermediaries, leave room for moral hazard. The banks have incentives to offer the securities below their real effective value. This enforces demand for subscription with the costs of lower IPO proceedings, at the expense of the issuer (Dhiansiri & Sayrak, 2010). Loughran and Ritter (2004) carry the exploitation of moral hazard on part of the banks one step further. In their model the banks deliberately allocate underpriced shares in order to gain future investment banking business.

Benveniste & Spindt (1989) have shown that asymmetrically distributed information between banks and investors can also be a reason for underpricing. In this context, underpricing is a means to compensate investors, who are better informed than the banks themselves, for revealing their information.

(iii). Underpricing can also be seen as a signaling device. Welch (1989) explained underpricing as a means to create attractiveness to potential SEO investors. Since the forgoing of IPO proceedings presents considerable costs for the issuer, only healthy issuers can afford it.

(iv). Price support activity constitutes another explanation for underpricing. Within the first days after the IPO, the underwriter may seize such actions in order to stabilize the price of the security, which therefore experience an artificially good performance (Ruud, 1993; Schultz & Zaman, 1994).

Newer approaches focus on behavioral finance arguments such as mental accounting, which points out that managers are indifferent towards leaving money on the table since they are

well-compensated as shareholders of the company by the price jump in the secondary market (Loughran & Ritter, 2002).

The possible explanations for underpricing are manifold. No single theory alone can explain underpricing. Instead all of them have to be considered. The relative relevance of these theories may change on a case-by-case or industry-by-industry basis. Concerning the IPOs considered in this article, all of the above introduced theories may be relevant. No general conclusion can be made and the relative importance of those theories has to be evaluated case-by-case.

Despite this unusually positive performance in the first days of public trading, a lot of research has shown empirically that IPO shares significantly underperform the market in the long-run. In one of the first studies, Ritter (1991) analyzes a set of 1,526 US IPOs during 1975 to 1984 and finds that these shares underperform those of matching firms by 17% over a three-year buy-and-hold period. Many others such as Brav, Geczy, and Gompers (2000) document that underperformance is particularly driven by small growth stocks as well as non-venture backed IPOs. Chang, Chung, and Lin (2010) again report a positive influence of underwriter reputation on the long-run stock price performance. While long-term underperformance is also commonly attributed to asymmetrically distributed information and investor sentiment, a more conclusive explanation of this phenomenon has not yet been given.

An often-cited approach to explain long-term IPO underperformance is given by Eckbo and Norli (2005). They argue that IPOs do indeed yield generally low returns, but also have lower risk exposures and show empirically that IPO companies have higher stock turnover as well as lower leverage which should result in lower systematic risk. This approach is developed further by Carlson, Fischer, and Giammarino (2004, 2006) who use a real options framework to explain that firms commonly use the proceeds of a seasoned equity offering to exercise real options such as acquiring another company or investing in a corporate project. These investments should turn risky growth opportunities into lower-risk assets in place and thereby lower the company's beta. In a later study it was empirically shown by the same authors that systematic risk of issuing companies gradually decreases in the three post-SEO years (Carlson, Fischer, & Giammarino, 2010).

According to this theory that was advanced inter alia by Cooper and Priestley (2011), low offer returns are not caused by systematic mispricing or investor sentiment, but a general reduction in systematic risk. We believe fashion companies to be particularly subject to a high systemic risk exposure due to their strong dependence on seasonal collections' appreciation by customers (Königs, 2009). Since financial studies in general, and studies focusing on systemic risk in the fashion industry in particular, are scarce, this assumption cannot be substantiated with the aid of the extant literature. However, we believe that considering the typical business characteristics of fashion companies, this assumption is sustainable. Using the proceeds from an equity offering to build or acquire additional brands and to diversify their revenue streams should therefore result in a general risk reduction. While Carlson *et al.* (2004, 2006) focus solely on seasoned equity offerings; they also suggest that the implications of their model should apply to IPOs as well. We therefore conduct an analysis of changes in company betas following fashion offerings in section 4.

3. Data and Methodology

3.1. Data

We identify relevant fashion and leather accessories initial public offerings using the SDC/Thomson One Banker Equity Deals database. In order to be included in the data sample, the respective transactions have to meet the following criteria:

- 1) The transaction is denominated as an initial public offering (IPO flag).

- 2) The issuing company has a primary two-digit SIC code within the major groups “23 – Apparel and Other Finished Products Made from Fabrics and Similar Materials” or “56 – Apparel and Accessory Stores”.
- 3) The issuance date is between 1 January 1990 and 31 December 2007.
- 4) The transaction was not withdrawn and liquid monthly trading data for the 36 months following the IPO are available on the Thomson Financial DataStream database.

Criterion (1) ensures that only initial public offerings of common stock are considered and subsequent offerings such as SEOs are excluded. Industry affiliation is applied by using the major two-digit SIC code groups for apparel manufacturers (group “23”) as well as retailers (group “56”), hence criterion (2). Criterion (3) determines that monthly stock data for three full trading years (36 months) has to be available. Since IPO activity sharply declined in the wake of the worldwide financial crisis of 2008, this does not exclude a large number of deals. The first noteworthy fashion IPO after the crisis was the 2010 IPO of German-based mid-price fashion house Tom Tailor Holding AG. IPOs that were either withdrawn or did not show liquid monthly trading after their public announcement were excluded (criterion (4)).

While many similar studies apply a minimum offer size or offer price, this is not mandatory for inclusion in our data sample. In any case only two of the IPOs considered in this study reported proceeds of less than \$1m. After applying all of the above criteria, the final data sample comprises 207 worldwide initial public offerings of fashion companies with a total IPO volume of roughly \$22.1bn in the respective time window.

Table 1 shows the geographical distribution of deals with Asia and North America being the two continents with the most active IPO markets. Not surprisingly, the United States are the single largest market both in terms of number of deals as well as IPO volumes, followed by Japan and Hong Kong. Europe shows the highest IPO volume due the two largest deals albeit a rather modest number of transactions. Average IPO underpricing (as measured as the percentage change of the offer price to the closing price one week after the offer) is highest for Chinese IPOs while European and North American deals, on average, show lower initial underpricing, which may be attributed to more established market conditions.

Table 1. Geographical distribution of fashion IPO volumes and underpricing

Geographical area	Number of IPOs	Volume (US\$ mil)	Average underpricing
Asia	89	5,855.9	24.63%
<i>thereof: China</i>	12	1,700.7	55.82%
<i>thereof: Hong Kong</i>	25	2,596.4	14.43%
<i>thereof: Japan</i>	28	1,031.1	22.30%
Australia	10	1,643.7	45.26%
Europe	50	8,027.9	11.53%
<i>thereof: Germany</i>	4	1,645.7	0.00%
<i>thereof: France</i>	10	183.9	13.33%
<i>thereof: Italy</i>	9	1,472.6	3.86%
<i>thereof: United Kingdom</i>	7	996.9	26.08%
North America	55	5,872.2	17.47%
<i>thereof: United States</i>	52	5,429.9	16.73%
South America	3	702.0	3.36%
Total	207	22,101.8	20.53%

We also observe the seasonality of initial public offerings in the fashion industry. Table 2 illustrates the distribution and volumes of IPOs as well as their average underpricing per year. The data show a concentration of deals in time periods such as the end of the 1990s and the years prior to the financial crisis of 2008. This indication supports the hypothesis that companies take advantage of investor sentiment and favorable market phases (“cold issue” markets) when issuing equity. In 1975 Ibbotson and Jaffe (1975) first documented the existence of a “hot issue” market. The authors provide the definition as “[...] periods in which the average first month performance (or aftermarket performance) of new issues is abnormally high”. Their findings suggest, that investors are able to identify periods in which new issue returns are expected to be highly positive. Thus they can concentrate their investments in these periods, leading to unusually high stock performances. It is also suggested, that issuers may obtain a higher offering price relative to the efficient price, when they issue in a cold issue market. Furthermore, it is shown that investors should be able to identify cold issue markets with the aid of past data. Taking this into consideration, it can be concluded that IPOs may take place in waves, as all issuers try to take advantage of cold market phases. This theory is also supported by the available data of Table 2.

Table 2. Fashion IPO distributions, volumes and underpricing per year

Year	Number of IPOs	Volume (US\$ mil)	Percentage of deals	Average underpricing
1990	1	48.1	0.48%	20.18%
1991	3	123.8	1.45%	0.00%
1992	9	382.1	4.35%	5.16%
1993	13	809.7	6.28%	19.78%
1994	20	850.1	9.66%	2.20%
1995	11	2,585.2	5.31%	1.89%
1996	7	443.5	3.38%	16.67%
1997	17	1,626.5	8.21%	11.24%
1998	14	719.8	6.76%	7.00%
1999	12	1,018.0	5.80%	9.66%
2000	15	889.4	7.25%	5.47%
2001	6	2,159.2	2.90%	-8.52%
2002	7	683.8	3.38%	20.27%
2003	12	702.7	5.80%	20.30%
2004	14	2,399.8	6.76%	26.93%
2005	12	886.9	5.80%	33.65%
2006	12	1,625.5	5.80%	29.01%
2007	22	4,147.7	10.63%	28.18%
Total	207	22,101.8	100.00%	20.53%

Initial underpricing strongly increases in certain phases (especially in the years from 2002 to 2007), which further supports the rationale behind the investor sentiment hypothesis for equity issuances. In line with previous empirical research, fashion companies left an average percentage of 20.5% of their offer proceeds on the table. IPO volumes are mainly driven by a few large deals such as adidas AG in 1995 and Inditex S.A. in 2001 and therefore do not show distinctive waves as observed in respect to the number of IPOs conducted.

Finally, we analyze several characteristics of fashion companies conducting an initial public offering. Table 3 reports some of the key financials and deal specifics of the sample IPOs. Offer proceeds, number of shares offered and underpricing have been taken from the SDC/Thomson One Banker Equity Deals database. All company financials have been retrieved from Thomson Financial

Datastream and are shown as reported at the end of the IPO year. Firm age at IPO was determined using internet research on the respective companies.

Table 3. Issuing company financials, ratios and IPO characteristics

	Mean	Median	Min	Max	Skewness	Standard deviation
Market capitalization (US\$ mil)	440.58	147.38	0.55	11,883.00	7.64	1,034.29
Sales (US\$ mil)	305.34	135.70	1.70	7,320.80	6.92	666.21
EBIT (US\$ mil)	44.91	18.50	-125.45	809.72	4.75	88.53
Proceeds from offer (US\$ mil)	106.77	36.90	0.48	2,077.56	5.08	237.36
No. of shares offered (mil)	52.18	4.20	0.00	1,988.00	8.96	181.64
Underpricing (in %)	20.53	12.37	-32.86	225.00	1.63	35.97
Return on equity (in %)	18.01	15.92	-25.61	81.33	1.21	16.19
Firm age at IPO (in years)	28.38	20.00	0.00	156.00	2.10	27.68

The data indicate a concentration of rather small- to medium-sized businesses, although many of the financials are strongly skewed right due to some large outliers. The largest IPO in our data sample is Spanish fashion company Inditex S.A. whose 2001 IPO grossed more than \$2bn, followed by adidas AG's 1995 \$1.5bn offering. Return on equity and EBIT measures indicate that many businesses are solid, profitable companies with strong cash generation which may also be explained with their mature IPO age. With a mean of almost 30 years, the average fashion company is rather advanced in its life cycle when conducting an IPO. The oldest companies in the data sample are French luxury manufacturer Hermès International S.A. that was founded in 1837 and taken public in 1993 as well as British fashion house Burberry Group plc whose 2002 IPO took place 146 years after its foundation in 1856 (Moore & Birtwistle, 2004).

3.2. Methodology

Abnormal stock price performance is measured using buy-and-hold returns as suggested by Loughran and Ritter (1995). First, we retrieve monthly stock returns for all fashion IPO companies (R_{jt}) that were adjusted for dividend payments and changes to the capital structure as well as returns on the corresponding local benchmark indices (R_{mt}) from Thomson Financial Datastream. In order to check our results for robustness, we also query monthly returns on corresponding local Datastream equity indices, the Datastream World Market index as well as the Datastream World Clothing & Accessories index.

Barber and Lyon (1997) argue that applying equity indices as a benchmark might bias test results in comparison to the usage of a control-firm approach matched on size and market-to-book ratios. Due to the usage of four different corresponding equity indices, however, we feel that test results are robust and coherent in our analysis. Buy-and-hold returns for sample companies (BHR_{jt}) and corresponding indices (BHR_{mt}) are calculated as follows:

$$BHR_{jt} = \prod_{i=1}^T (1 + R_{jt}) \text{ and } BHR_{mt} = \prod_{i=1}^T (1 + R_{mt}) \quad (1)$$

In a next step, we calculate buy-and-hold abnormal returns (BHAR) for the event windows of 1, 3, 6, 12, 18, 24, 30 and 36 months following the initial public offering by subtracting BHR for the corresponding indices from the BHR for fashion IPO companies:

$$\text{BHAR}_t = \text{BHR}_{jt} - \text{BHR}_{mt} \quad (2)$$

Means and medians for BHAR of all sample IPO companies are tested for statistical significance at conventional levels using a parametric standard t-test statistic, the skewness-adjusted test statistic of Johnson (1978) as well as a non-parametric Wilcoxon signed-rank test for medians. We also apply this approach to a number of univariate subsamples that differentiate IPOs according to their issue date, issuer SIC code and underwriter reputation.

We further apply cross-sectional regression analysis to identify the key drivers of the long-term stock price performance of fashion IPO companies. The buy-and-hold abnormal returns for the 36-month event window are used as the dependent variable. A series of company- and deal-specific criteria are applied as independent variables. Company financials are taken from the end of the year in which the IPO was conducted. As a measure for the market valuation level at the IPO date, we consider the price/earnings ratio of the corresponding Datastream World Clothing & Accessories index. Underpricing is defined as the percentage change between the offer price and the closing price one week after public trading began. Values for underpricing are available for 109 out of 207 fashion IPOs.

“Fashion manufacturer”, “secondary shares issue”, “foreign IPO”, “Asian offering”, “underwriter reputation” and “venture capital-backed” are binary dummy variables. “Fashion manufacturer” takes on the value 1 if the issuing company has a two-digit SIC code within the major group “23” as opposed to fashion retailers carrying a “56” SIC code. The variables “secondary shares issue”, “foreign IPO”, “Asian offering” and “venture capital-backed” are denominated 1 in case the SDC/Thomson One Banker Equity Deals database states that secondary shares were sold in the offering, the issuer is a non-domestic firm, the company was listed on an Asian stock exchange and a venture capital firm took the company public, respectively. “Underwriter reputation” is measured following the approach of Derrien and Kecskés (2007) and takes on the value 1 if the underwriter is a global investment bank. In our specification of global investment banks, we rely on the list presented by Derrien and Kecskés (2007) as well as the global IPO league tables of the SDC/Thomson One Banker Equity Deals database.

We apply three different models in our cross-sectional analysis. These models differ in their considered independent variables. Furthermore, while models M1 and M2 include all 207 sample IPOs, model M3 only considers the 109 offerings for which initial underpricing data was available on the SDC/Thomson One Banker Equity Deals database. The heteroscedasticity-consistent test procedure of White (1980) is used to test our results for statistical significance. As a check for robustness, we also apply a standard OLS regression model. Results are tested for autocorrelation using the test statistic of Durbin and Watson (1950, 1951).

Finally, we use the real options framework that has been illustrated for SEOs by Carlson *et al.* (2006, 2010) in the context of our fashion IPO data sample. First, we analyze the development of several company financials and ratios taken from WorldScope for one year prior to four years following the IPOs. We further check the SDC/Thomson One Banker Equity Deals database for the denominated use of IPO proceeds. In a last step, we analyze changes in IPO companies’ systematic risk exposure. We therefore use an OLS regression of corresponding index returns on the respective monthly IPO returns and a 12-month rolling window for the three post-IPO trading years in order to calculate company betas.

4. Results

Table 4 shows the results of our buy-and-hold event study for the 207 sample IPOs. While means for BHAR for the first year of trading are positive and medians are negative, but not significant at

conventional levels, median buy-and-hold abnormal returns for the following two years are negative and highly significant at the 1% level, peaking at an underperformance of 31.48% for the 36 months following the offering. Due to positive outliers, means are not statistically significant in most cases of parametrical test procedures, although BHAR of (12.34%) for 30 months are still quite considerable. We however find a strong long-term underperformance of fashion IPO companies compared to their respective local market indices based on non-parametric Wilcoxon tests. We also apply three additional equity indices to check our results for robustness. Our findings, however, remain qualitatively the same.

Table 4. Event study results for the entire data sample of fashion IPO companies (N=207)

Holding Period	BHAR		t-Test		Johnson Test		Wilcoxon signed-rank test		Nobs
	Mean	Median	t-value	p-value	J-value	p-value	z-score	p-value	
Months									No.
1	1.60%	-2.94%	1.003	31.72%	1.005	31.62%	-0.479	63.22%	207
3	2.58%	-0.48%	1.194	23.37%	1.197	23.28%	-0.363	71.68%	207
6	6.03%	-4.51%	1.669*	9.66%	1.678*	9.48%	-0.151	88.02%	207
12	1.05%	-12.00%	0.218	82.74%	0.220	82.62%	-1.240	21.49%	207
18	-3.77%	-19.94%	-0.629	53.00%	-0.626	53.21%	-2.786***	0.53%	207
24	-9.84%	-29.93%	-1.475	14.18%	-1.468	14.36%	-3.377***	0.07%	207
30	-12.34%	-30.69%	-1.671*	9.62%	-1.663*	9.79%	-3.516***	0.04%	207
36	-9.45%	-31.48%	-1.114	26.66%	-1.109	26.89%	-3.203***	0.14%	207

***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

We also apply univariate sub-samples to gain first indications of differences in the long-term performance of fashion IPOs. First, we split the data sample into 107 offerings conducted in the 1990s and 100 deals between 2000 and 2007. The data in table 5 show that means and medians for IPOs in the latter group are less negative and mostly not significant while offerings conducted in the 1990s show a more significant underperformance. Positive outliers, however, seem to occur more frequently in the 2000s as is confirmed by the larger difference between mean and median abnormal returns. Mean BHAR for the first six months of trading have positive values of up to 12% and are statistically significant for 2000s IPOs which confirms the increase in initial underpricing during this period as reported in table 2.

Table 5. Event study results for fashion IPOs conducted in the 1990s (left) and the 2000s (right)

Holding Period	IPOs from 1990 to 1999 (N=107)				IPOs from 2000 to 2007 (N=100)				Two-sample t-Test
	BHAR		Johnson Test	Wilcoxon signed-rank test	BHAR		Johnson Test	Wilcoxon signed-rank test	
Months	Mean	Median	J-value	z-score	Mean	Median	J-value	z-score	t-value
1	-1.08%	-5.16%	-0.498	-1.632	4.47%	-0.98%	1.912*	-0.980	-1.744*
3	-0.28%	-3.74%	-0.093	-0.945	5.65%	3.94%	1.821*	-1.437	-1.373
6	0.50%	-12.80%	0.110	-1.324	11.95%	6.18%	2.194**	-1.234	-1.589
12	0.07%	-14.58%	0.012	-1.439	2.11%	-11.82%	0.357	-0.268	-0.21
18	-7.55%	-26.50%	-0.801	-3.021***	0.27%	-11.31%	0.039	-0.860	-0.651
24	-19.11%	-40.09%	-1.870*	-3.770***	0.08%	-15.85%	0.011	-0.846	-1.442
30	-18.75%	-36.26%	-1.680*	-3.124***	-5.47%	-27.13%	-0.561	-1.726*	-0.898
36	-21.52%	-37.62%	-1.966*	-3.127***	3.46%	-27.06%	0.269	-1.296	-1.475

We further divide our sample into fashion manufacturers, i.e. companies carrying a two-digit SIC code in the “23” group, and firms active in the fashion retail segment, i.e. companies with a SIC code starting with “56” (see table 6). Again, we find a strong indication for differences in long-term share performance. BHAR for the 129 IPOs of fashion manufacturers are strongly negative and statistically significant for both means and medians while the 78 fashion retailers did not suffer statistically significant underperformance when going public.

Table 6. Event study results for IPOs conducted by fashion manufacturers (left) and fashion retailers (right)

Holding Period	IPOs of fashion manufacturers (N=129)				IPOs of fashion retailers (N=78)				Two-sample t-Test
	BHAR		Johnson Test	Wilcoxon signed-rank test	BHAR		Johnson Test	Wilcoxon signed-rank test	
	Mean	Median	J-value	z-score	Mean	Median	J-value	z-score	
Months									
1	1.76%	-2.94%	0.880	-0.956	1.34%	-3.53%	0.507	-0.182	0.094
3	2.07%	-2.03%	0.793	-0.196	3.43%	4.32%	0.909	-0.615	-0.393
6	3.01%	-4.62%	0.681	-0.807	11.04%	-2.41%	1.813*	-0.799	-1.220
12	-5.01%	-15.90%	-0.961	-1.879*	11.08%	-8.45%	1.187	-0.296	-1.753*
18	-14.52%	-22.82%	-2.179**	-3.537***	13.99%	-8.10%	1.249	-0.132	-2.181**
24	-23.83%	-35.27%	-3.207**	-4.023***	13.31%	-20.97%	1.074	-0.386	-2.545**
30	-25.27%	-39.20%	-2.796**	-3.962***	9.06%	-23.08%	0.726	-0.635	-2.074**
36	-26.11%	-43.52%	-2.710**	-3.774***	18.10%	-22.74%	1.176	-0.371	-2.489**

Finally, we also analyze differences in long-run stock price performance between companies that have been taken public by a prestigious underwriter (N=88) and those that have not (N=119) according to the methodology of Derrien and Kecskés (2007). As we expected, table 7 shows that firms issuing equity with a high reputation investment bank gain negative, but insignificant long-term returns. On the contrary, mean and median BHAR of low underwriter reputation IPOs are strongly negative and significant at the 1% and 5% levels, respectively.

Table 7. Event study results for IPOs with high (left) and low reputation underwriting investment banks (right)

Holding Period	High reputation underwriter (N=88)				Low reputation underwriter (N=119)				Two-sample t-Test
	BHAR		Johnson Test	Wilcoxon signed-rank test	BHAR		Johnson Test	Wilcoxon signed-rank test	
	Mean	Median	J-value	z-score	Mean	Median	J-value	z-score	
Months									
1	3.77%	-2.89%	1.458	-0.179	0.00%	-3.82%	0.000	-0.830	0.416
3	5.66%	0.62%	1.795*	-1.223	0.31%	-0.93%	0.108	-0.666	0.878
6	11.17%	-3.81%	1.993**	-0.974	2.23%	-5.34%	0.482	-1.037	1.224
12	3.92%	-13.84%	0.543	-0.374	-1.06%	-11.46%	-0.161	-1.342	0.709
18	0.36%	-16.09%	0.042	-1.157	-6.83%	-21.54%	-0.844	-2.694***	0.291
24	2.85%	-26.38%	0.270	-1.082	-19.22%	-33.68%	-2.258**	-3.500***	1.137
30	2.22%	-25.95%	0.186	-1.415	-23.10%	-32.69%	-2.529**	-3.447***	1.299
36	6.91%	-24.84%	0.481	-1.290	-21.55%	-38.74%	-2.141**	-3.073***	1.247

Table 8 shows the results for the three considered models of our cross-sectional regression analysis. In our first model, we find additional evidence for our finding that long-term underperformance of IPO stocks stems mainly from offerings conducted by fashion manufacturers. The corresponding

dummy variable is negative and significant at the 5% level in model M2 as well, further confirming the fact that the market valuation for fashion retailers, on average, has been more favorable than for manufacturers over the course of our observation period.

Table 8. Multiple regression analysis results

	M1	M2	M3
Intercept	-1.5480** (-2.3260)	-1.6127** (-2.3810)	-1.4015 (-1.2288)
Dummy variables			
Fashion manufacturer	-0.3749** (-2.0634)	-0.3806** (-2.0845)	-0.4246 (-1.5199)
Secondary shares issue	-0.0832 (-0.4356)	0.0592 (0.3344)	
Foreign IPO	0.1805 (0.6133)	0.2546 (0.8551)	0.2699 (0.6634)
Asian offering	0.0895 (0.5332)	0.0388 (0.2377)	
Underwriter reputation	0.4219** (1.9867)		0.6534** (2.4455)
Venture capital-backed	-0.1889 (-0.9865)	-0.2098 (-1.0955)	-0.3902 (-1.5029)
Company financials			
Log market cap	0.1100 (0.8246)	0.2307* (1.6663)	
Return on equity	0.0024 (0.5052)	0.0026 (0.5515)	0.0036 (0.5485)
Debt ratio	-0.1939 (-0.5354)	-0.1584 (-0.4407)	-0.0697 (-0.1364)
EBIT margin	-0.0918 (-0.1645)	-0.2871 (-0.5110)	
Deal specifics			
Firm age at IPO	0.16144* (1.8882)	0.1694* (1.9542)	0.2400* (1.7368)
Number of bookrunners	0.0133 (0.0820)	0.0192 (0.1194)	
Initial underpricing			0.0757 (0.2023)
Stock market climate			
DS World Clothing P/E ratio	0.0335 (1.6501)	0.0304 (1.5240)	0.0264 (0.5644)
N	207	207	109
Adj. R ²	0.0484	0.0367	0.0561
F-statistic	1.8993**	1.7001*	1.7265*

Note: The table shows the results of our multivariate regression analysis using the heteroscedasticity-consistent test procedure by White (1980) with the buy-and-hold abnormal return for the 36-month event window as the dependent variable. t-values are shown in brackets. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively. Dummy variables take on the value 1 if they apply to the respective IPO and 0 otherwise.

Contrary to our expectations, there is an overall positive correlation between the market valuation level as represented by the price/earnings ratio of the Datastream World Clothing & Accessories index and the long-term BHAR without being significant at conventional levels. This is inconsistent with the hypothesis of eroding stock performance in case companies take advantage of a favorable market evaluation level. While table 2 certainly shows that IPO activity does occur in wave patterns, we cannot empirically support a negative correlation between the general stock market climate and IPO performance in the fashion industry.

Based on previous empirical studies, we further assumed that offerings conducted by foreign issuing companies might underperform compared to offerings of domestic issuers. The non-significant results for the “foreign IPO” dummy variable in all three models contradict this assumption and shows that non-domestic offerings have performed rather well. In light of this finding, the case of Prada’s and Esprit’s Hong Kong IPOs and Tommy Hilfiger’s intention for a European offering can be regarded as beneficial strategic decisions and underline the unique characteristics of the fashion industry in international equity financing.

There is no significant correlation between long-run performance and the presence of a venture capital firm or similar financial sponsor. It should be added, however, that VC-backed IPOs only make up 28 deals (13.5%) of our sample. Nevertheless, the “underwriter reputation” dummy has a significantly negative and robust influence on fashion IPO buy-and-hold returns throughout all models. This is most likely due to the fact that prestigious underwriters (in this case defined as global investment banks) mainly participate in the issuances of larger, more mature companies with lower risk exposures and more stable cash flow generation, but can also be caused by more advanced analyst coverage in the secondary market.

When we eliminate the underwriter reputation variable to control for the presence of possible multicollinearity with regard to log market cap and firm age in model M2, our central finding is further confirmed by the positive influence of the logarithm of the company’s market capitalization at the end of the IPO year, which becomes statistically significant. Additionally, the natural logarithm of firm age at the IPO date is significant and positive throughout all three models. Although it might be expected, correlation between firm age and company size as well as the underwriter reputation dummy is not substantial and may therefore be disregarded. It can further be reasoned that IPOs of younger companies significantly underperform those of well-established fashion houses.

According to our analysis, it seems that managerial experience, a long-standing company track record as well as a certain firm size are viewed as critical success factors by investors. We therefore conclude that offerings of larger, more mature companies in the fashion and leather accessories industry that are taken public by prestigious underwriting banks significantly outperform IPOs of smaller, inexperienced firms that cannot rely on their heritage or a long period of stable cash flow generation. When we look at the individual buy-and-hold returns of offerings in the fashion and leather accessories industry, many of the companies with strong post-IPO stock price performances are indeed firms that match this very profile such as Abercrombie & Fitch, adidas, Cia Hering, Coach and Hermès International.

In our last model M3, we only consider the 109 IPOs for which initial underpricing percentages were available on the SDC/Thomson One Banker Equity Deals database. Nevertheless, there is no significant correlation between the amount of money left on the table in the issuance of fashion IPOs and their respective long-term buy-and-hold returns in the three trading years after the offering. Model M3 still supplies further confirmation for our main findings that especially underwriter reputation and firm age at the IPO date positively influence stock returns following an IPO in the fashion and leather accessories industry.

We further analyze the development of issuing companies’ pre- and post-merger financials that might give an insight in the use of offer proceeds. Table 9 shows that the sample companies experience strong growth in both sales and total assets especially in the two years following an IPO.

Since capital expenditures also increase after an offering and cash and short-term investments slightly drop in the second year after an IPO, we assume that many companies use their offer proceeds for both investments in internal growth opportunities as well as mergers and acquisitions. This hypothesis is indeed confirmed by data taken from the SDC/Thomson One Banker Equity Deals database which states that 73 out of 207 issuing firms (35.3%) intended to use their offer proceeds for either “future acquisitions”, “project finance” or “capital expenditures”. In comparison, only 37 sample companies (17.9%) stated that the reduction of their indebtedness or the refinancing of bank loans and other outstanding debt was their primary motivation for raising equity capital.

Table 9. IPO company financials and ratios in years relative to the IPO date

	Issuer mean financials in years relative to the IPO date				
	-1	+1	+2	+3	+4
Sales (US\$ mil)	294.41	345.16	410.83	470.12	540.81
<i>Sales growth</i>		17.24%	19.03%	14.43%	15.04%
Total assets (US\$ mil)	210.23	264.37	320.99	362.48	412.42
<i>Total assets growth</i>		25.75%	21.42%	12.92%	13.78%
Cash & Equivalents (US\$ mil)	21.57	44.42	43.01	55.87	66.65
<i>Cash & Equivalents growth</i>		105.89%	-3.16%	29.88%	19.30%
Debt ratio	22.91%	19.74%	19.52%	19.98%	22.31%
Capex / sales	5.39%	7.08%	5.92%	5.09%	4.65%

Given the fact that a large fraction of IPO companies use their offer proceeds for investments in internal as well as external growth opportunities, an analysis of changes in systematic risk exposure is made worthwhile. If companies invest in a corporate project such as an M&A transaction, they exercise risky real options and turn them into assets in place that carry lower risk. We therefore hypothesize that IPO companies’ betas should significantly decrease following the equity offering. The data in figure 1 confirm these assumptions. The IPO firms’ mean beta gradually decreases from a peak of 1.17 two months after the IPO down to 0.77 approximately two years after the offering as also reported by Carlson *et al.* (2004, 2006).

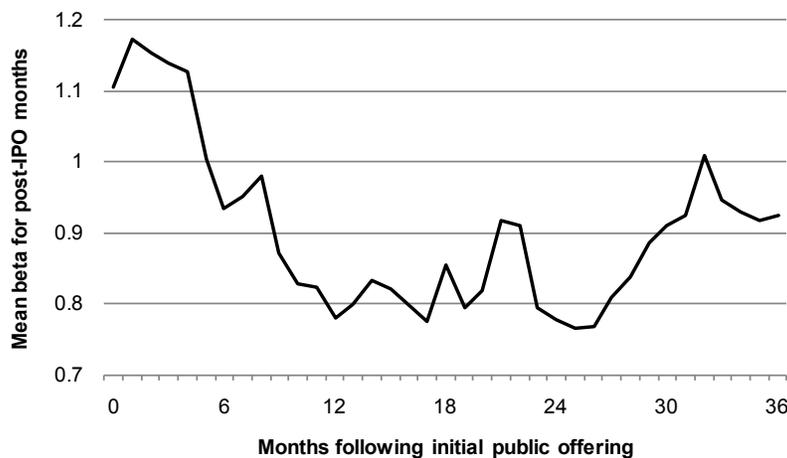


Figure 1. Post-IPO mean beta development of fashion IPO companies

Over the course of our observation period from 1990 to 2007, leading share indices such as the S&P 500, DAX 30, CAC 40 and FTSE 100 have yielded geometric average returns of 8.0% to 10.0% annually. Given these average returns, a drop in IPO company betas of 0.4 as reported in our analysis would translate into a considerable decrease in demanded equity returns of between 320 and 400 basis points. The strong and statistically significant underperformance of fashion IPO stocks in the three years after conducting their first public equity offering therefore has to be somewhat put into perspective.

While not all issuing companies intended to use their proceeds for the realization of growth opportunities, this can still be upheld for a considerable portion. We have shown empirically that mean betas for our sample companies decrease in the three years after an IPO. In the context of the risk-return spectrum, this reduction of systematic risk exposure also helps to explain at least a part of the seemingly poor post-IPO stock price performance. We therefore conclude that the pessimistic outlook on long-term performance in the fashion and leather accessories industry that is given in our buy-and-hold event study should be complemented by the positive effects of systematic risk reduction following IPOs.

5. Conclusion

We analyzed the long-term stock price performance of 207 initial public offerings in the fashion and leather accessories industry between 1990 and 2007. In line with a large fraction of previous research on equity offerings, we find a highly significant underperformance of fashion IPO stocks compared to various corresponding benchmark indices. Univariate sub-samples indicate that this underperformance is mainly driven by IPOs conducted during the 1990s, offerings of fashion manufacturers as opposed to fashion retailers as well as companies that were not taken public by a prestigious, global investment bank.

Cross-sectional regression analysis confirms the underwriter reputation hypothesis and shows that deal execution by a prestigious underwriter significantly improves post-IPO stock price performance. Additionally, company sizes as well as the firm age at the IPO date positively affect long-term buy-and-hold returns for fashion companies. We therefore conclude that investors positively evaluate managerial experience and the presence of institutional factors such as global investment banks and a sufficient track record of positive cash flow generation. An empirical correlation between the initial underpricing and the long-term stock price performance, however, cannot be substantiated with our analysis.

We also find a new explanation for the seemingly poor long-term stock price performance when we observe company financials, use of proceeds and changes in post-IPO systematic risk exposure. Many fashion companies use at least parts of their offer proceeds to invest in both internal and external growth opportunities. In doing this, they transform risky real options into lower-risk assets in place. An analysis of changes in fashion IPO companies' mean betas supports this hypothesis and therefore helps to explain that the apparent underperformance of fashion IPO stocks may well be driven by a general reduction in systematic risk. This finding sheds a more optimistic light on initial public offerings as a means to raise capital in the fashion and leather accessories industry. Prada's recent \$2.1bn offering has further shown that fashion IPOs are still able to spark investor interest.

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