

Going Dark in Italy

Empirical Evidence on last Decade

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Abstract

The purpose of the paper is to examine the characteristics and motives of Italian voluntary Public to Private transactions (PTPs) between 2001 and 2011 observing a final sample of more than 53 industrial companies, compared with a control sample of 106 companies still listed in the period. Main goal is to assess if any signals can predict a going private operation for listed companies in Italy and, if positive, Italian market shows differences with previous investigation in Continental Europe and US.

Most of going private research is based on US samples, starting from 1980s, and on UK sample, both characterize by distinctive features related to governance (i.e., degree of openness of share capital, ability to control shareholder capital with low percentage). On the contrary, Italian market is closely characterized by presence of large shareholder, as family owner or historical owner, as observed for a large number of listed companies in Continental Europe (Faccio and Lang, 2002). After having briefly reviewed main contribution from most recent literature, this work provides test of different hypotheses trying to explain the delisting phenomenon in Italy considering a wide range of motivations.

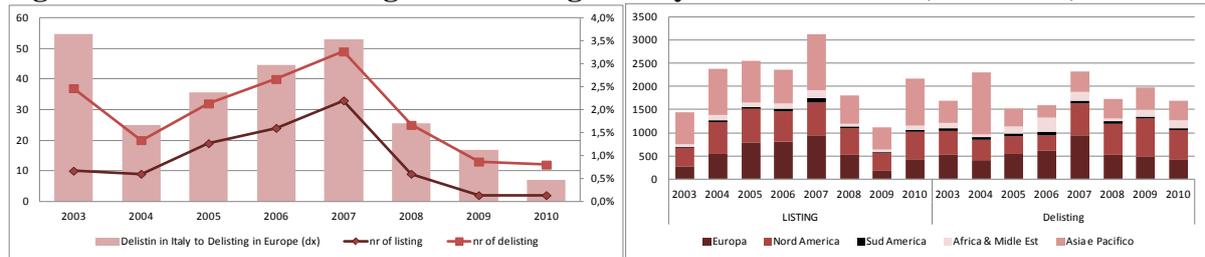
Practical implications of results achieved can help to highlight on Public to Private phenomenon in Italy, still not enough observed considering the high number of delisted companies in the last decade relating to a relative small number of listed companies.

Introduction

Due to financial crisis started in 2008 and actually on air, the delisting process has gained new interest from academic and professional environment. The number of firms going private is increasing in the current decade at relevant rate worldwide (Figure 1), this representing a first reason for a new wave of attention in corporate finance literature to this phenomenon, not much explored comparing with discussion on going public.

The phenomenon of Public to Private (here and after PtP) assumes a particular relevance in Italy compared to the major European countries in term of both the total number of delisting and the smaller number of listed company (Figure 1). Italian market is quite different looking at other comparable contexts because of corporate governance characteristics of listed company as the ownership structure and the high presence of financial institution in the capital market.

Figure 1: Evolution of listing and delisting in Italy and Worldwide (2003-2010)



Source: World Exchange Federation statistics, our elaboration

PtP operation can be realized through different type of transactions. According to Macey et al. (2008) it is possible to distinguish between:

- Involuntary delisting, when a firm has been merged/acquired by another firm or experience financial distress;
- Voluntary delisting, known as well as Regular delisting, or Going private transactions, when a listed firm voluntary revoke his listed status.

Causes for *involuntary* delisting are generally linked to corporate restructuring such as financial distress of the firm, operation of merger or acquisition by other firm, change of corporate form, integration into parent company, reverse stock split, share repurchases where resulting company no longer meets the listing requirements or prerequisites of the exchange (Copeland & Weston, 1988; Jansen & Kleimeier, 2004). These cases are also known as *cold delisting*.

In the contrast, a *voluntary* delisting is experienced by a listed company asking for complete revocation of its listing admission, or when the revocation of the listing admission is caused *ex officio* for non-compliance of issuing requirements.

When existing investors or controlling investors (such as private equity fund, family owner or historical owner) decide to go private through a Buy-out, voluntary delisting has been defined with the acronym BOSO, Buy-out Offer with Squeeze Out (Ventoruzzo, 2010). Two types of BOSO can be distinguished (Martinez & Serve, 2011): first, the squeeze-out is the first following operation after an acquisition by new owners; second, the historic shareholder, such as the family owner or the corporate owner, increases its control in order to have more power of squeeze out minority investors. So that, just voluntary delisting can be considered a Public to Private transaction in a proper way (here and after PtP).

The rational, the framework regulation and form of all the mentioned practices of going private differs substantially, requiring to isolate one type of transaction from one another. In this study we focus on regular delisting.

This contribute is organized as follows. In the first section we provide a review of the growing research on PTP transactions. We than define the hypotheses which will form the basis of our empirical analysis, the research design and the main characteristics of sample observed. Finally, we provide our main findings, the limits of the analysis and suggestions for further research.

Literature review on incentives of going private

A wide range of topics on delisting practice have been investigate, focusing on different incentives for going private, basically ranked in three main stream:

1. Traditional incentives related;
2. Agency theory;
3. Financial structure.

Some authors investigated on probability to go private searching for “*traditional motivation*”, related to increasing in listing costs and/or decrease in listing benefits.

DeAngelo et al. (1984) tested for *size* hypothesis and probability to go private, stating that, as larger firms are potentially more efficient at amortizing fixed listing costs, small firms would be more motivated to leave the public market when the direct costs of being listed increase. Moreover, authors provide test for *undervaluation* hypothesis, considered as an example of an opportunity cost that is generated by asymmetric information between managers/owners and stock market investors. Unlike investors, management has superior inside information and knows the true distribution of future returns. Therefore, undervaluation occurs when the market price of the share does not fully reflect the true value of the firm (DeAngelo et al., 1984). Following the path, when the management knows that the share price is undervalued, they may decide to go private for strategic reasons, to extract private benefits and to avoid the opportunity costs of staying listed (Kim and Lyn, 1991).

Considering *reduction in listing benefits*, Shah and Thakor (1988) tested for reduction of ability to share risk with public investors. Observing deteriorating of ability to share risk with public investors, they found that, when a controlling shareholder has more complete information about expected return of a firm’s assets, public status is attractive because risk can be more efficiently shared with public investors, those eliminating idiosyncratic risk maintaining well-diversified portfolios. In opposition, a firm prefers to go private when specific risk (idiosyncratic risk) is low and being listed does not provide risk-sharing advantage.

Secondly, Mehran and Peristiani (2009) tested for decrease in listing benefits in terms of *reduction of financial visibility*. Since market analysts can affect a firm in a number of ways, a negative relationship is assumed between the degree of financial visibility and the decision to go private. So that, firms with decreases in analyst coverage, institutional ownership and turnover (i.e. volume of transactions) were more likely to go private.

In line with the issue, different authors investigate on *reduction of liquidity* of the stock and probability to go private. Major findings shows that, since liquidity of share trading is a primary benefit of going public, if the stocks’ liquidity benefit deteriorates, the firm will be more likely to go private (Amihud and Mendelson, 1998; Bolton and Von Thadden, 1998; Boot et al., 2006).

A second stream of authors focused on incentives to PTP transactions derived from the *agency theory*. In particular, in Anglo Saxon countries, characterized by a central dilemma on “how to get the manager to act in the best interest of the shareholders” (Jensen, 1986), two main hypothesis have been tested to provide possible explanations for a GPT via an LBO (primary way of delisting in US and UK).

First, *incentive realignment hypothesis*, considered as an important factor in going dark operation. Delisting operation, that provide a higher concentration in share capital as a consequences of share buy-back, allows to boost shareholder’s wealth providing rewards for the managers, inducing them to act consistently with the interests of investors (Kaplan, 1989).

Secondly, *free cash flow hypothesis* has been linked to high leverage associated with an LBO, which is supposed to reduce the waste of FCFs by the managers because more cash-flow is needed to repay the debt.

In Continental Europe, where ownership structure is more concentrated, almost showing a situation where largest shareholder’s stake is approximately twice as large as that in Anglo-Saxon LBO targets (Faccio and Lang, 2002), motivation of going dark are closely related to other two main issues:

- (i) monitoring role and
- (ii) conflicts of interest between large and minority shareholders.

Achleitner et al. (2010), observing firm's attractiveness for private equity investors, stated that it depends on the quality of the monitoring by the large shareholder: a highly monitored firm is likely to be less attractive to private equity investors because the potential for value creation will be lower. Conversely, in a lowly monitored firm, the large shareholder will be more tempted to sell the firm via an LBO (Achleitner et al., 2010).

Observing sample of PTP in UK, Weir et al. (2005) and Renneboog et al. (2007) stated that presence of a stronger concentration of ownership implies closer monitoring by outside shareholders prior to the GPT. Thus, the firm is less likely to suffer from high agency costs stemming from conflicts of interest between shareholders and managers. So that, if the realignment hypothesis is considered to be an explanation for European GPTs, realignment is not as strong a driving factor as it is in the Anglo-Saxon markets (Weir et al., 2005; Renneboog et al., 2007).

On the other side of the moon, if high concentration smooth probability to suffer of weak monitoring, large shareholders are likely to extract private benefits of control. Croci and Del Giudice (2011) observed that large shareholders, in particular in the case of ownership concentration in a single family, might be tempted to extract private benefits of control where minority investors are not in a strong bargaining position.

Martinez and Serve (2011) stated that the incentives of the controlling shareholder for delisting the firm can differ according to its identity. In particular, family owners aim to maximize their benefits, including often private benefits not available to minority investors. Moreover, families are often risk-averse (Bianco et al., 2009). They will choose to exit the public market when facing threats to their control, as can be the case for smaller and undervalued firms, which are ideal acquisition targets. In this situation, family controlling shareholders may decide to close the capital of their firm to avoid a contest with minority shareholders who could sell their shares to a new owner, such as an institutional investor (Martinez and Serve, 2011). In synthesis, the control hypothesis is proposed as an alternative hypothesis for European PtPs via an LBO. This hypothesis posits an inverse relationship between the shareholder's wealth gains from PtPs and the ownership concentration (Achleitner et al., 2010).

The third main issue investigated by authors is related to motivations to go private and *financial structure*. Because of different use of leverage, with implications linked to tax benefits of debt financing in going private operation, hypotheses related to the financial structure of the delisted firm will differ strongly according to the type of PtP. Tax benefit linked to high leverage is presented in many studies as a key driving factor in the decision to go private via an LBO.

Using a sample of US going dark operation, Lehn and Poulsen (1989) observed that tax benefits is a significant source of wealth gains because of tax deductibility of interest payments on corporate debt. The substantial increase in cash-flows creates a major tax shield and, after the transaction, firms pay almost no tax for a long period, which increases the shareholders' gains. This result has been recently confirmed for LBO operation, underlining that magnitude of tax benefit depends on the fiscal regime and the marginal tax rate the firm is subjected to (Renneboog et al., 2007).

Over LBO, literature on PtP observed delisting via Buyout Squeeze Out operation (BOSO), another way to go private. BOSO transaction does not require financial leverage as in LBOs operation that follow the acquisition of the firm by private equity investors. In the case of a voluntary BOSO, the first player for delisting is usually the historic controlling shareholder, a corporation or a family owner. As a consequence, the driving factors behind the delisting decision via a BOSO are likely to be different than for a delisting due to LBOs, M&As or financial distress (Martinez and Serve, 2011).

Using financial distress model of Opler and Titman (1993) that consider hypothesis related to size, age, portfolio diversification and growth opportunities to analyze a paired sample of UK companies, Weir et al. (2005) stated that decision to go private is a trade-off between the potential gains from incentive realignment and the possible costs of financial distress, showing that delisted firms are smaller, younger, more diversified and with a lower growth opportunities, measured by the Q ratios.

Focusing on leverage and growth opportunities hypothesis, previous results have been confirmed. Recent contribution (Bharath and Dittmar, 2010; Martinez and Serve, 2011), underline that if the firm no longer needs access to the equity market and is not financially constrained, the decision to go private could reveal its preference for alternative sources of financing such as debt, given that there are fewer benefits – and many costs – associated with being listed. Furthermore, if the firm no longer needs access to the equity market, another motivation for a PtP could be a lack of growth opportunities and investment projects.

In synthesis, the phenomenon of delisting assumed relatively big dimension in last decade because of changing in financial markets and regulatory law framework for listed companies. Because of a short number of studies have been produced on the “under the eye” market in term of volatility of stock price, such as the Italian market in the last year, that can contribute to boost PtP, this investigation is focused on testing some driving factors such as and probability to go private.

Developing the research model and Hypotheses

At this stage of research we decide to concentrate our attention only on a limited number of hypotheses derived from literature that can better fit Italian PtP transactions of industrial listed firms. In order to test the hypotheses we define key variables based on both capital markets data and financial statement information. The table below shows the different hypothesis derived from the literature, the definition of each hypothesis through a set of variables and related formulas, the assumed relationship between the value of the variables and the PtP probability.

Table 1 - Summary of the hypotheses

Hypoteses	Key variables	Acronym	Formulas	Assumed relationship to PTP
<i>H1 Free Cash Flow</i>	Cash Flow	CF	$\frac{EBITDA_t - 1}{BV_{t-1}}$	Positive
	Liquidity	LIQUI	$\frac{NWC_t - 1}{TA_{t-1}}$	
	Tobin Q	PROXYQ	$\frac{(\text{Market Cap} + \text{Debt})_{t-1}}{\text{Total Asset}_{t-1}}$	
<i>H2 Leverage Potential</i>	Free Cash Flow	FCF	$\frac{(\text{EBITDA} - \text{Net tax Expense} - \text{Dividends Paid})_{t-1}}{\text{Equity}_{t-1}}$	Negative
	Leverage	LEVERAGE	$\frac{\text{Net Debt}_{t-1}}{\text{Total Asset}_{t-1}}$	
	Variance in EBIT	VARIA	$\frac{(\text{Standard Deviation of EBIT}_{t-1 \text{ to } t-3})}{\text{Mean of EBIT}_{t-1 \text{ to } t-3}}$	
<i>H3 Decreasing Benefits of Being Listed</i>	Tax Paid	TAX	$\frac{\text{Tax Paid}_{t-1}}{BV_{\text{Equity}_{t-1}}}$	Negative
	Sales Growth Rate	SALEGR	$\frac{(\text{Sales}_{t-3} / \text{Sales}_{t-1}) - 1}{}$	
	Employment Growth Rate	EMPLOYGR	$\frac{(\text{Employment}_{t-3} / \text{Employment}_{t-1}) - 1}{}$	
	Shareholder Profitability	ROE	$\frac{\text{Earnings}_{t-1}}{BV \text{ of Equity}_{t-1}}$	
	Equity	EQUITY	Book value of Equity(t-1)	
<i>H4 Limited Capital</i>	Total Asset	ASSETS	Book value of Asset(t-1)	Negative
	EBITDA Margin	MARGIN	$\frac{EBITDA_{t-1}}{\text{Sales}_{t-1}}$	
	Market to Book Ratio	PxBV	$\frac{\text{Market capitalisation}_{t-1}}{\text{Equity, per share}_{t-1}}$	
<i>H5 Market Efficiency</i>	Sale Multiple	PxSALES	$\frac{\text{Share Market Price at fiscal year end}}{\text{Sales}_{t-1}}$	Positive
	Market Capitalisation	MKTCAP	$\frac{\text{Number of outstanding shares} \times \text{Share price at fiscal year end}}{}$	
<i>H5 Dividend Payments</i>	Dividend Yield	DIVY	$\frac{\text{Dividend per Share}_{t-1} \times 100}{\text{Share price at Fiscal Year End}}$	Positive
	Dividend per Share	DPS	$\frac{\text{Total Dividend paid}_{t-1} \times \text{Number of Outstanding Share}_{t-1}}{}$	
	Pay Out Ratio	PAY OUT	$\frac{\text{Dividends Paid}_{t-1}}{\text{Net Income}_{t-1}}$	

In particular, according with previous investigation of Michelsen and Klein (2011), Lehn and Poulsen (1989), Opler and Titman (1993), Rao et al (1995), Renneboog et al (2007) we assume that the amount of Free cash flow in a company should positively influence the probability of a PtP. This occurs this form of suboptimal allocation of capital can be assumed an agency costs proxy since any excess cash should be disbursed to shareholders. Furthermore, this creates an incentive especially for BOSO and LBO operation.

The second set of hypotheses is focused on capital structure. First of all, low leveraged companies can be considered as a target in LBO operation, since it allows an additional value creation potential for new shareholders by means of their capital structure. Secondly, a higher leverage, which can be considered as a proxy for control on performance by the management, permits to put under pressure the management in the use of cash limiting their scope for discretionary spending, this increasing the risk of imminent job losses if performance is poor.

Decreasing benefits of listing hypotheses are based on the corporate *Life Cycle Stage Theory* (Burghof and Schilling, 2003). It is assumed that mature companies marked by slow growth can be easily financed by internal capital generation or low cost debt sourced outside. Furthermore they may benefit for an easier assets assessment which can be used as security for debt financing, this reducing funding costs. So that, we assume a negative relation between the probability of a PtP and all selected variables representative of a stable growth.

Set of hypotheses 4 refers to the firm's undervaluation. The valuation discrepancies can be due to information asymmetries between insiders and outsiders regarding the company's future profitability and productivity; if this occurs, insiders could benefit in set up share buy-back programs (Lehn and Poulsen, 1989; Kim and Lyn, 1991). Furthermore, in case of undervaluation, a limited market capitalization - which has adverse effect on secondary market liquidity - increases the internal (owners and management) and external investors' incentives to take firm private to get the potential value. This effect can be particularly relevant for Italian market since the major part of listed companies are basically highly concentrated in ownership, often owned by founder's family (Kemper and Schiereck, 2002).

Our last set of hypotheses (H5) is strictly related with the perception of PtPs as rather stable companies that tend to operate in mature industries. According to Carroll et al. (1989), eligible firms for PtP transaction are expected to pay relatively higher dividends because of a low need of investments. This argument is also consistent with hypothesis 2 (Leverage potential) since it is assumed that PtP firms are less engaged in debt repayment: lower debt commitment can be traduced in low dividends retained. Moreover, the dividend policy can be considered as a signal of conflicting interest between shareholders and management: while shareholders have a strong interest in dividend payments, the management wants to keep financial resources within the company to boost investment plan (Rao et al, 1995). In this context, going dark permits to reduce conflict between ownership and control reducing pressure on short term profits and dividends in favor of long term strategies.

Research Design and Data Collection

The sample is made of 53 going private firms, which constitute 55% of the total of the industrial companies delisted in the period 2001-2011, and the 87% of the total *voluntary* delisting - experienced by a listed company when a company voluntary moves to go dark asking for complete revocation of its listing admission, or when the revocation of the listing admission is caused *ex officio* for non-compliance of issuing requirements - in the same period considering the whole industrial sectors.

For the data collection we had to turn in different data sources to construct our sample. We mainly used Bloomberg database. In case Bloomberg missed data, data have been

provided by Centro Studi Mediobanca. Moreover, we used public information provided by Borsa Italiana and Consob, the main regulatory institution in Italian financial markets.

In order to analyze the characteristic of the PtP sample with the support of univariate and multivariate analysis, we select a control group of listed company using the paired sample design approach (following Michelsen and Klein approach). In particular the criteria of selection of the control group are industry background and size (Lawrence, 1986; North, 2001), minimizing any sector or size effect in our analysis.

Table 2 – Industry distribution and breakdown of sample

Industry	Control Sample	Going Private Sample	N
Industrial Goods & Services	31	16	47
Personal & Household Goods	24	8	32
Construction & Materials	10	4	14
Technology	6	4	10
Utilities	6	3	9
Travel & Leisure	5	3	8
Chemicals	4	3	7
Real Estate	4	2	6
Automobiles & Parts	4	2	6
Health Care	3	2	5
Retail	2	2	4
Telecommunications	2	1	3
Media	3	0	3
Basic Resources	1	1	2
Oil & Gas	1	0	1
Food & Beverage	0	1	1
Financial Services	0	1	1
Totale complessivo	106	53	159

Looking at the main statistics of selected variables (Table 3) for the two samples we can state that PtP sample is made up of smaller firms showing on average Total Asset of € 926 mln (ASSETS) and lower level of capitalization (MKTCAP) comparing with control sample. Furthermore, PtPs denote lower performances looking at annual ROE and operating profitability expressed by EBIT variance (VARIA). This could confirm our assumption that PtP transaction is undertaken by firms with low or negative profitability.

A potential systemic undervaluation of the PtPs can be illustrated looking at price multiple (PxSALES) and market capitalization (MKTCAP), even if we observe a generalized low performance on capital market of the full sample considered. The valuation measured Price to Book Value (PxBV) multiple is inconclusive regarding the PtP's potential systematic undervaluation.

We then perform a univariate analysis to test hypotheses and a multivariate analysis using a logit model by maximum-likelihood (Lehn and Poulsen, 1989; Michelsen and Klein, 2011) in order to outline explanatory variables of PtP transactions.

Empirical results of univariate and multivariate analysis

The observed sample's characteristics and differences were analyzed by means of univariate test statistics. The following table shows the results of test statistics Wilcoxon Rank-Sum Test on the differences between the PtP sample and the Control Sample. This test allows a better control of potential outliers since it relies on the sample median instead of the mean. Furthermore, a non-parametric test statistics is better suited for our study, as the assumption of the variables' normal distribution has to be rejected.

Table 3 – Univariate analysis, Wilcoxon rank-sum test

Variables	Going Private Sample				Control Sample				Difference
	Mean	Median	SD	N	Mean	Median	SD	N	Wilcoxon
CF	0.51	0.26	1.48	53	0.19	0.21	0.39	106	0.0400
LIQUI	0.17	0.15	0.20	52	0.15	0.13	0.21	106	0.0100
PROXYQ	0.82	0.76	0.45	53	1.53	0.85	3.49	106	- 0.0900
FCF	0.45	0.21	1.44	53	0.52	0.15	7.31	106	0.0400 *
LEVERAGE	162.77	45.39	438.94	53	119.71	56.31	339.44	106	3.5058
VARIA	- 1.85	0.17	14.66	53	0.68	0.21	4.08	106	- 0.0300
TAX	0.04	0.05	0.12	53	0.16	0.05	0.60	106	- 0.0100
SALEGR	0.58	0.14	1.90	53	0.15	0.08	0.57	105	0.1101
EMPLOYGR	0.03	0.02	0.36	53	0.24	0.10	0.64	106	- 0.0900 **
PxBV	2.02	1.60	1.51	53	2.08	1.59	1.85	106	0.0900
PxSALES	11.57	0.84	74.93	53	1.48	0.78	2.02	106	0.0400
ROE	- 0.36	6.67	34.73	53	0.87	8.01	33.80	106	- 1.5500
MKTCAP ⁽¹⁾	402,883	194,433	531,187	53	928,508	211,044	2,522,516	106	- 15,678.7700
MARGIN	0.37	0.12	1.37	53	0.29	0.13	1.09	106	- 0.0001
EQUITY ⁽¹⁾	262,485	135,140	304,047	53	670,352	162,981	3,193,607	106	- 8,628.9490
ASSETS ⁽¹⁾	926,324	448,400	1,607,773	53	1,868,503	427,115	8,506,092	106	8,208.9130
DIVY	0.84	-	1.38	52	1.84	1.29	2.20	106	0.0000
DPS	0.05	-	0.10	53	0.14	0.05	0.24	106	- 0.0200
PAY OUT	0.09	-	0.70	53	0.38	0.22	1.33	106	- 0.0001

* Significance at 10%; ** Significance at 5%; ⁽¹⁾ In '000 Euro

We found some evidence for the postulated *Free cash flow hypothesis* (H1); in particular, for free cash flow (FCF), that is significantly greater for PtP sample. Results show less evidence for the other variables related to H1 (CF, PROXYQ and LIQUI), whose relevance is not statistically confirmed by Wilcoxon test. Therefore, H1 hypothesis cannot be rejected at this stage of the analysis.

The test statistics show that the PtP sample is marked by slow growth in Number of Employees (EMPLOYGR), confirming partially the hypothesis H3 (*Decreasing benefits of being listed*). The development of the work force clearly shows that these companies were no longer growing. This also can be explained considering industry analysis, as shown in Table 3. The sample shows a high heterogeneity in sales growth compared (SALEGR) with the control sample as confirmed by standard deviation, but we found no statistically evidence on sales assumption. The other variables selected to test for hypotheses H4 reveal no differences between PtP and control sample.

Differently from our assumptions, we do not found evidence in favor of the *Leverage potential* (H2) and *Limited capital market efficiency* hypothesis (H4). In particular, results show that no difference in capital structure can be stated considering PtP sample and control one. So that, going private companies are not supposed to take advantage in boosting leverage to create value for the post-transaction shareholders. Similar considerations can be stated for assumed undervaluation of PtP companies.

Regarding *Dividend payments hypothesis* (H5), no evidence has been found from univariate point of view to confirm that control group shows a significantly lower dividend per share and payout level. In fact, PtP sample reveal often no payment in dividend in the year before going private.

Since all other variables do not show any systematic differences, the overall PtP sample is representative of our subsequent multivariate analysis. We decide to estimate a logit model by maximum-likelihood comparable to the one employed in previous studies (Lehn and Poulsen, 1989; Weir et al., 2005; Michelsen and Klein, 2011).

The dependent variable is equal to “zero” if the company remains public over the sampling period and “one” if the company goes private. We have estimated different model

specification. The first model allows us to test all set of postulated hypothesis. The other models vary in respect of the inclusion of the variables in order to looking for models with the highest overall significance.

Table 4 – Multivariate analysis: results and diagnostic for alternative specifications of the logit model

Variables	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	β	SE	β	SE	β	SE	β	SE	β	SE	β	SE
Constant	-0.2976	0.4947	0.4147 ***	0.0511	0.4217 ***	0.0508	0.4216 ***	0.0506	0.4088 ***	0.0474	0.3910 ***	0.0461
CF	1.7520	1.0960	0.0910 *	0.0394	0.0918 *	0.0395	0.0914 *	0.0392	0.0969 *	0.0384	0.0987 *	0.0386
LIQUI	0.7127	1.0260										
PROXYQ	-0.3884	0.4152	-0.0093	0.0130	-0.0094	0.0130	-0.0094	0.0130				
FCF	-0.1746	0.2051										
LEVERAGE	-0.0018	0.0020										
VARIA	-0.0530	0.0646										
TAX	-3.5900	2.8520	-0.0919	0.0738	-0.0937	0.0739	-0.0936	0.0737	-0.1084	0.0707		
SALEGR	0.8418 *	0.0456	0.0611 *	0.0298	0.0606 *	0.0298	0.0607 *	0.0297	0.0621 *	0.0296	0.0657 *	0.0297
EMPLOYGR	-1.2620 *	0.5568	-0.1432 *	0.0633	-0.1438 *	0.0634	-0.1447 *	0.0627	-0.1454 *	0.0626	-0.1404 *	0.0628
ROE	0.0032	0.0112										
EQUITY	0.0000	0.0000										
ASSETS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
MARGIN	0.0123	0.0121										
PxBV	0.0665	0.1935										
PxSALES	0.0071	0.0155	0.0010	0.0008								
MKTCAP	0.0000	0.0000										
DIVY	-0.3082 *	0.1759	-0.0552 **	0.0181	-0.0566 **	0.0181	-0.0569 **	0.0178	-0.0566 **	0.0177	-0.0551 **	0.0178
DPS	-0.9918	1.6610										
PAY OUT	-0.1461	0.2404										
R^2	0.2254		0.1676		0.1596		0.1596		0.1567		0.1437	

* Significance at 10%; ** Significance at 5%; *** Significance at 1%

In a multivariate context the statistical significance of the variables in our univariate analysis changes partially. The Model 1 allows us to test all our postulated hypotheses and shows that a greater sales growth, a lower employment growth and a lower dividend yield have positive effect on the PtP probability. Excluding progressively explanatory variables which proved not significant in the univariate analysis and those revealing multicollinearity, we tried to improve the overall goodness-of-fit of the logit model. Nevertheless, it shows just few differences among model specifications and in results achieved in previous reported Wilcoxon test analysis.

The free cash flow variable's parameters show differences in results. Cash flow variable and liquidity are significant regarding the probability of going private and with the assumed sign. On the contrary, free cash variable with the Tobin's Q measures show no significant influence in PtP transaction and furthermore have the opposite sign. So that, we have to partially dismiss the free cash flow hypothesis (H1), as found in previous results conducted by Zillmer (2003) and Michelsen and Klein (2011).

Considering our assumption, and in line with univariate analysis, leverage ratio (LEVERAGE) shows opposite sign and no significance in explanatory models. Nevertheless, the found sign is consistent with free cash flow variable (FCF), this assuming same sign in the relation. This underlines that this firms have not to be considered as attractive for external take over (namely in the form of LBO). In contrast to US research, the taxes paid (TAX) by the target firm prior to the PTP transaction are not related to the wealth effects the deal is expected to generate. Although leverage potential hypothesis are consistent with free cash flow variables, we have to reject H2.

Regarding hypothesis of stock market quotation decreasing benefits very few variables show the right signs of coefficients (ASSET, EMPLOYGR). Only SALEGR and EMPLOYGR can be considered as explanatory variables of the probability to going private; as recorded in the univariate analysis, SALEGR show significance and a positive relation to PtP. So that we have to refuse H3 as formulated in life cycle theory.

We have also to dismiss the hypothesis on limited capital market efficiency (H4) since results of multivariate analysis do not show systematic undervaluation of going private firms.

Finally, the assumptions by H5 regarding PtPs paying higher payout in the form of dividends can not be confirmed. In fact, the variables selected to demonstrate the hypothesis have a negative relation with the probability to PtP and only the dividend yield is significant.

Conclusions and suggestions for future research

The aim of this study was to examine the characteristics of PtP firms in Italy and the possible motives behind such transaction. For this purpose, we analyzed a hand-collected sample of 53 companies for the period 2001-2011 with the help of univariate and multivariate test statistics.

The following table provides an overview of the main findings of our studies.

Table 5 – Overview of findings

Hypoteses	Key variables	Assumed relationship	Observed relationship univariate	Observed relationship multivariate
<i>H1 Free Cash Flow</i>	Cash Flow		N.S	Positive
	Liquidity	Positive	N.S	N.S
	Tobin Q		Negative	N.S
	Free Cash Flow		Positive	N.S
<i>H2 Leverage Potential</i>	Leverage		N.S	N.S
	Variance in EBIT	Negative	N.S	N.S
	Tax Paid		N.S	N.S
<i>H3 Decreasing Benefits of Being Listed</i>	Sales Growth Rate		Positive	Positive
	Employment Growth Rate		Negative	Negative
	Shareholder Profitability	Negative	N.S	N.S
	Equity		N.S	N.S
	Total Asset		N.S	N.S
	EBITDA Margin		N.S	N.S
<i>H4 Limited Capital Market Efficiency</i>	Market to Book Ratio		N.S	N.S
	Sale Multiple	Negative	N.S	N.S
<i>H5 Dividend Payments</i>	Market Capitalisation		N.S	N.S
	Dividend Yield		N.S	Negative
	Dividend per Share	Positive	Negative	N.S
	Pay Out Ratio		Negative	N.S

N.S., Not Significant

Our findings show that Italian going private's firms are relatively small in size and operating in mature sectors with a slow growth expressed in terms employment growth rate. Furthermore, PtP firms are marked by a high capital needs since they show higher leverage comparing with control sample.

Our results differ consistently from previous investigation conducted mainly in Anglo-Saxon markets (US, UK) and secondly in Continental Europe markets. In fact, we did not find any significance in major hypothesis tested by main literature on the topic, this allowing us to affirm that Italian firms has been boosted by different incentives to go private. In particular, considering free cash flow hypothesis linked to Agency Theory (Jensen, 1989), our results do not confirm a positive relation between excess annual cash flow and going private operation. Moreover, hypothesis on leverage potential are less consistent for Italian experience. The Italian sample is also marked by a low profitability and a policy of retaining earnings.

We can conclude as follows. Initiators of the public to private transaction are not driven by taking advantage in using unused liquidity ex-post or in boosting leverage through LBO or gain from an acquisition of a supposed undervalued listed firm. On the contrary, since we don't prove undervaluation hypothesis - that allows to affirm that a going dark decision can be assumed to avoid hostile take over by competitors – our evidence supports that a going private decision has to be interpreted as a need of public companies to refine capital structure and business portfolio.

An interesting research route for further research in Italian context can be addressed in searching for (i) any relation between type of investors and ownership structure ex-ante and ex-post PtP to support this interpretation of results achieved (ii) the influence of trading volume and stocks' liquidity conditions.

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