How does the stock market perceive management transactions?

The impact of management transactions on stock prices of SWX quoted companies using event study methodology

Master Thesis
in
Corporate Finance

Swiss Banking Institute
University of Zurich

Prof. Dr. Per Östberg

Author: Thomas Walliser

Hand-in date: 12.08.2011

Executive Summary

Introduction

Managers, (mainly executive and non-executive board members) often have privileged information about their company. However, the question remains as to whether such managers can therefore utilise this privileged information to create abnormal returns (either positive or negative) by buying or selling shares or by other methods applicable to the specific company. How does the market react to such management transactions when the trades become public? A number of studies have investigated the impact of management transactions on share prices to determine if there are abnormal returns for insider trading. Some of these studies try to locate abnormal returns of management transactions in a run-up period to corporate events such as mergers, acquisitions or stock splits. Another small group of studies focuses on the effects of management transactions per se. They assess management transactions as corporate events and investigate their impact on the market. This thesis will similarly investigate management transactions over time. The purpose of this thesis is to measure the impact of management transactions on share prices to evaluate the associated market reaction (positive or negative) from buy and sell transactions. Additionally, the transactions are tested whether there are abnormal returns in order to see differences in similarities between several types of transactions.

Scope

According to rules of the Swiss Exchange (SWX) management transactions can be classified into several categories. The company must state if it is a buy or sell transaction and if an executive or a non-executive member executed the transaction. Additionally, detail about whether the transaction is equity-based, option-based or another type of transaction ("others"), must be given. A management transaction can be classified into three categories: who authorised the management transaction (executive or non-executive board member)?, what type of transaction was it (equity, option and others)? and is it a buy or sell trade.

According to this categorisation the thesis investigates categorical differences in several types of transactions. For example how do the management transactions vary with time? Is there a difference in the amount of buy or sell transactions? Do executive board members or non-executive board member trade more often? What is the volume size of a deal? Are option-based trades becoming more popular than classical equity trades? These questions amongst others will be addressed by the qualitative analysis.

The quantitative approach focuses more on the impact of management transactions on share prices. Are buy or sell transactions associated with an abnormal market reaction? Are there abnormal returns or are the effects insignificant? Is there a difference in algebraic sign between buy and sell trades? Which type of management transaction has the most significant abnormal returns? If there are abnormal returns, how substantial are they?

Methodology

The investigated sample consisted of 1316 management transactions. The data was gathered from transactions occurring between 1.1.2005 till 31.12.2010. The 35 largest companies according to their market capitalisation of the whole Swiss Performance Index (SPI) were analysed. To measure and investigate the impact of management transactions an event study approach was used. This method was based on the parametised regression model which was first used to measure the impact of regulatory changes on share prices. A parametised model allows all investigated management transactions to be regarded as corporate events and thus allowed analysis of the full time period from 1.1.2005 till 31.12.2010 and avoided any overlapping between event windows and estimation windows. The parametised model was modified for this thesis and three different models were created to analyse the impact of management transactions. Additionally, the regressions were conducted over one day and three day event windows.

Results

Based on the qualitative and quantitative analysis the thesis can be summarised as follows. 70% of all management transactions were sell trades. Management transactions were intended to buy equity or options in only 30% of all cases. The amount of equity trades was about four times that of the option-based deals. This was true for both buy and sell management transactions. There were more equity transaction traded by executive board members than by any other category. In the case of a buy transaction, trades were executed equally by executive and non-executive board members. However executive board members were found to be more likely to execute sell transactions as equity-based trades.

An average sell transaction was approximately CHF 2'500'000, and a buy deal CHF 8'000'000. Although buy deals were 3.2 times larger than sell deals, 70% of all transactions were sell deals. Option-based deals were found to have an average trading volume of approximately CHF 1'740'000 irrespective of whether it was a buy or a sell transaction. The trading volume of buy equity-based management transaction was round four times greater than sell equity-based and 4.8 times bigger than option-based buy and sell trades. The number of non-executive board member transactions is half as many than those conducted by executive board member but the trades were 5.4 times higher in terms of trading volume. The peak of management transactions were in 2006 and 2007 with 365 and 359 trades respectively.

All companies had sell management transactions and 34 conducted buy trades. A buy transaction was anticipated with negative abnormal stock returns, whereas a sell transaction was found to result in a positive abnormal stock return. In the buy cases, 24 out of 35 (69%) showed a negative sign and on the sell side even 31 out of 35 (89%) had a positive sign. 29% of the negative buy signs and 23% of the positive sell signs were statistically significant. A three day event window showed the same trend. Buy transactions had mostly negative abnormal returns and sell trades had mostly positive abnormal stock performance.

The dummy variable associated with equity-based buy transactions was more often negative than positive (21 negative, 14 positive and 1 N/A). Seven out of 21 (33%) of the negative dummies were significant. Option-based buy transactions also had more negative than positive cases and suggested that buy transactions were mainly negative. 24 of 35 companies did not have any buy option-based management transactions. This category was seldom and only a few companies made this type of trade.

Sell equity-based deals were frequently conducted. 34 companies undertook this kind of transaction and in 29 cases the sign of the dummy variable was positive. 28% of the 29 cases were statistically significant and showed positive abnormal stock returns when observing a sell equity transaction. More companies had sell option transactions than buy option deals but less than equity deals (buy and sell). The number of significant dummy variables and percentage distribution did not change heavily between different models and different event window lengths.

In a buy transaction there were more negative dummy variables than positive ones. An exception was buy equity by an executive board member in which were more dummies with a positive sign. Equity-based buy transactions conducted by non-executive board member was an interesting case since although positive and negative cases were effectively equal (13 to 16), six dummies with a negative sign were significant (38%) and zero were significant with a positive sign. Only a few companies had option-based buy transactions conducted by executive or non-executive board members. Most companies did not involve themselves with this type of deal at all. 28 companies out of 35 did not have option-based buy transactions in the case of execution by an executive board member and 29 companies relating to non-executive board member.

Sell management trades were inherent with about 0.9% (one day event window) or 0.6% (three day event window) positive abnormal return. In the one day event window buy deals lead to a negative abnormal return of about 2.2%, whereas in the three day event window this figure was only negative 0.3%.